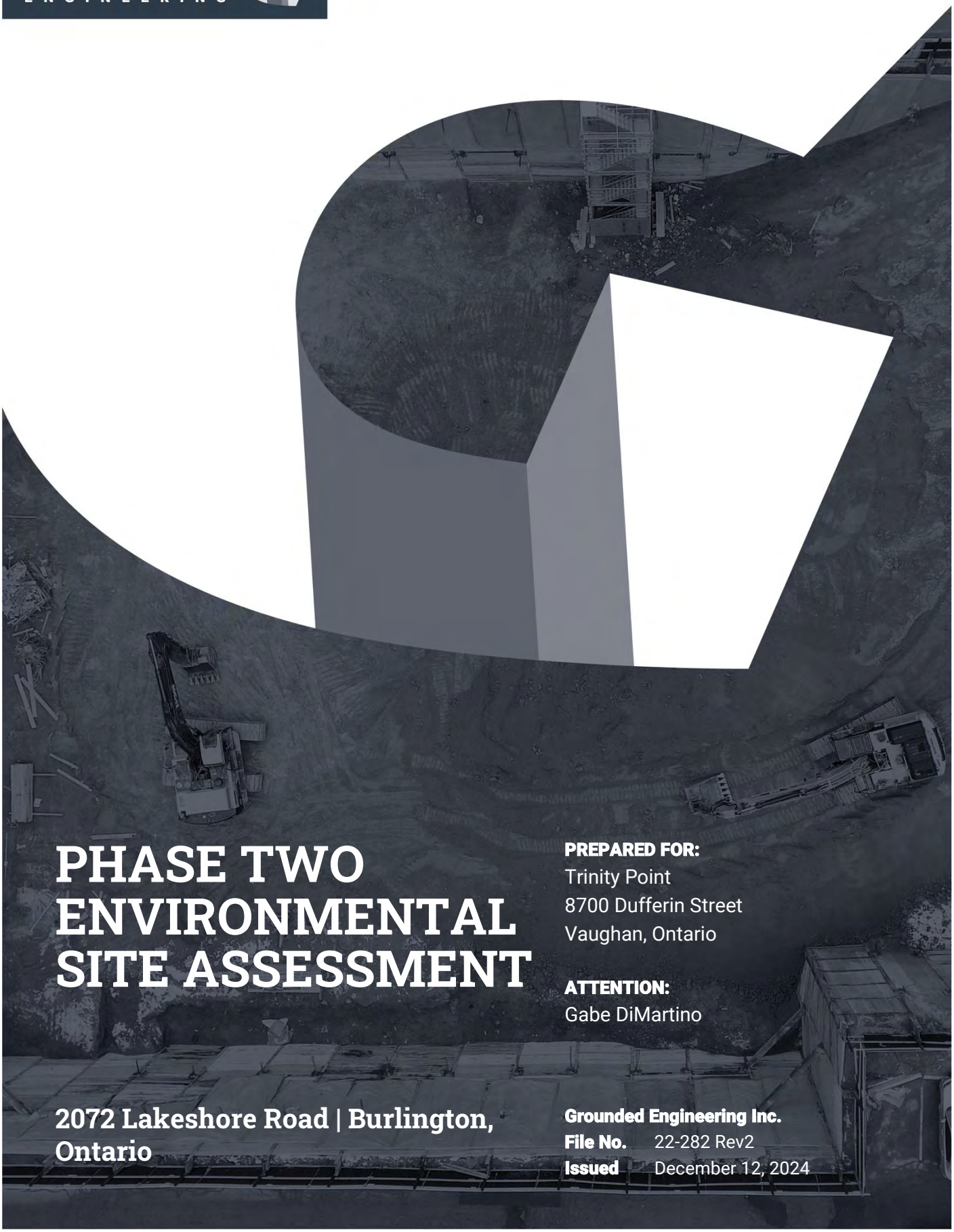


PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

PREPARED FOR:
Trinity Point
8700 Dufferin Street
Vaughan, Ontario

ATTENTION:
Gabe DiMartino

2072 Lakeshore Road | Burlington, Ontario

Grounded Engineering Inc.
File No. 22-282 Rev2
Issued December 12, 2024

1 Banigan Drive, Toronto ON M4H 1G3 | (647) 264-7909 | groundedeng.ca | Grounded Engineering

TABLE OF CONTENTS

1 EXECUTIVE SUMMARY 5

2 INTRODUCTION 7
2.1 SITE DESCRIPTION 7
2.2 PROPERTY OWNERSHIP 7
2.3 CURRENT AND PROPOSED FUTURE USES 7
2.4 APPLICABLE SITE CONDITION STANDARD 8

3 BACKGROUND INFORMATION 8
3.1 PHYSICAL SETTING 8
3.2 PAST INVESTIGATIONS 9

4 SCOPE OF THE INVESTIGATION 12
4.1 OVERVIEW OF SITE INVESTIGATION 12
4.2 MEDIA INVESTIGATED 14
4.2.1 Rationale for Exclusion and Inclusion of Media 14
4.2.2 Overview of Field Investigation of Media 14
4.3 PHASE ONE CONCEPTUAL SITE MODEL 14
4.4 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN 14
4.5 IMPEDIMENTS 14

5 INVESTIGATION METHOD 15
5.1 GENERAL 15
5.2 DRILLING 15
5.3 SOIL – SAMPLING 15
5.3.1 Equipment Used 15
5.3.2 Geological Description 16
5.4 SOIL – FIELD SCREENING MEASUREMENTS 16
5.5 GROUNDWATER – FIELD MEASUREMENT OF WATER QUALITY PARAMETERS 16
5.6 GROUNDWATER – MONITORING WELL INSTALLATION 16
5.7 GROUNDWATER – SAMPLING 17
5.8 SEDIMENT – SAMPLING 18
5.9 ANALYTICAL TESTING 18
5.10 RESIDUE MANAGEMENT PROCEDURES 18
5.11 ELEVATION SURVEYING 18
5.12 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES 18
5.12.1 Containers, Preservation, Labelling, Handling and Chain of Custody 18
5.12.2 Equipment Cleaning Procedures 20
5.12.3 Field Quality Control Measures and Deviations 20

6 REVIEW AND EVALUATION 20
6.1 GEOLOGY 20
6.1.1 Material in Geological Units 21

6.1.2 Properties of Aquifers and Aquitards 22
6.1.3 Rationale for Choice of Aquifers and Aquitards Investigated 22
6.2 GROUNDWATER: ELEVATIONS AND FLOW DIRECTION 22
6.3 GROUNDWATER: HYDRAULIC GRADIENTS 24
6.4 FINE-MEDIUM SOIL TEXTURE 24
6.5 SOIL – FIELD SCREENING 24
6.6 SOIL – QUALITY 24
6.6.1 Location and Depth of Samples 24
6.6.2 Comparison to Applicable Standards 27
6.6.2.1 Exemption of Salt Related Exceedances in Soil (O.Reg. 153/04 Sec 49.1 (1)) 28
6.6.3 Contaminants of Concern 29
6.6.4 Contamination Impact on Other Media 29
6.6.5 Chemical or Biological Transformations 29
6.6.6 Presence of Light or Dense Non-Aqueous Phase Liquids 30
6.7 GROUNDWATER QUALITY 30
6.7.1 Location and Depth of Samples 30
6.7.2 Comparison to Applicable Standards 31
6.7.2.1 Exemption of Salt Related Exceedances in Groundwater (O.Reg. 153/04 Sec 49.1 (1)) 31
6.7.3 Contaminants of Concern 32
6.7.4 Contamination Impact on Other Media 32
6.7.5 Chemical or Biological Transformations 32
6.7.6 Presence of Light or Dense Non-Aqueous Phase Liquids 32
6.8 SEDIMENT – QUALITY 32
6.9 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS 32
6.9.1 Subsection 47 (3) of the Regulation 33
6.9.2 Laboratory Qualification of Results 33
6.9.3 Overall Quality of Field Data 33
6.10 PHASE TWO CONCEPTUAL SITE MODEL 33
7 CONCLUSIONS 33
7.1 SIGNATURES 35
8 REFERENCES 36
9 LIMITATIONS AND RESTRICTIONS 37
9.1 REPORT USE 37

FIGURES

Figure 1 – Property Location Plan
Figure 2 – PCA Locations
Figure 3 – APEC Locations
Figure 4 – Borehole and Monitoring Well Locations
Figure 5 – Groundwater Elevations and Contours
Figure 6 – Metals Exceedances in Soil – Plan View
Figure 7 – Metals Exceedances in Soil – Section A – A'
Figure 8 – Metals Exceedances in Soil – Section B – B'
Figure 9 – Petroleum Hydrocarbons Exceedances in Soil – Plan View
Figure 10 – Petroleum Hydrocarbons Exceedances in Soil – Section A – A'
Figure 11 – Petroleum Hydrocarbons Exceedances in Soil – Section B – B'
Figure 12 – Summary of Analysis in Groundwater – Plan View
Figure 13 – Groundwater Sampling Locations – Section A – A'
Figure 14 – Groundwater Sampling Locations – Section B – B'
Figure 15 – Human Health Conceptual Site Model
Figure 16 – Ecological Conceptual Site Model

TABLES

Table 1 – Groundwater Elevations
Table 2 – Metals, Hydride Metals, Other Regulated Parameters in Soil
Table 3 – Polycyclic Aromatic Hydrocarbons in Soil
Table 4 – Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene, Xylene in Soil
Table 5 – Volatile Organic Compounds and Trihalomethanes in Soil
Table 6 – Metals, Hydride Metals, Other Regulated Parameters in Groundwater
Table 7 – Polycyclic Aromatic Hydrocarbons in Groundwater
Table 8 – Petroleum Hydrocarbons in Groundwater and Benzene, Toluene, Ethylbenzene, Xylene in Groundwater
Table 9 – Volatile Organic Compounds and Trihalomethanes in Groundwater

APPENDICES

Appendix A – Phase One Conceptual Site Model
Appendix B – Sampling and Analysis Plan
Appendix C – Standard Field Investigation Protocol
Appendix D – Borehole Logs
Appendix E – Grain Size Analysis
Appendix F – Certificates of Analysis
Appendix G – Phase Two Conceptual Site Model

1 Executive Summary

Trinity Point retained Grounded Engineering Inc. to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 2072 Lakeshore Road, Burlington, Ontario (Property). The Phase Two ESA was conducted to investigate the Areas of Potential Environmental Concern (APECs) that have been identified on the Property.

Revision 1 of this report includes the following changes:

- Round of water levels collected on December 10, 2024
- Updated borehole logs with new water levels.
- Updates to future development.

The results of the Phase Two ESA are summarized below:

Applicable Site Condition Standards	MECP Table 3 RPI

Soil Contaminants of Potential Concern (CoPCs) Investigated	• Metals (M)
	• Hydride-forming Metals (H-M)
	  ○ Arsenic (As), Selenium (Se), Antimony (Sb)
	• Other Regulated Parameters (ORPs)
	  ○ B-HWS, CN-, EC, SAR, Cr(VI), Hg
	• Polycyclic Aromatic Hydrocarbons (PAH)
	• Petroleum Hydrocarbons (PHCs)
	• Volatile Organic Compounds II - Benzene, Toluene, Ethylbenzene, Xylene (BTEX)
	• Volatile Organic Compounds I (VOCs)

Groundwater CoPCs Investigated	• Metals
	• Hydride-forming Metals
	  ○ As, Se, Sb
	• Other Regulated Parameters
	  ○ Cr(VI), CN-, Hg, Cl-
	• Sodium (Na)
	• PAHs
	• PHCs
	• BTEX
	• VOCs

Applicable Site Condition Standards Met for Soil? (Yes/No)	No, MECP Table 3 exceeded for the following parameters in the fill: • Cadmium • Lead

	• Zinc MECP Table 3 exceeded for the following parameters in the native: • PHC (F3)
Applicable Site Condition Standards Met for Groundwater? (Yes/No)	Yes

A Record of Site Condition (RSC) cannot be filed for the Property at this time due to the exceedances identified in the fill materials and native soils. Additional investigations followed by either remediation, or a Risk Assessment (RA) will be required before an RSC can be filed for the Property.

2 Introduction

2.1 Site Description

Trinity Point retained Grounded Engineering Inc. to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 2072 Lakeshore Road, Burlington, Ontario (Property). The Phase Two ESA was conducted to investigate the Areas of Potential Environmental Concern (APECs) that have been identified on the Property. The site location is presented on Figure 1.

The Property is irregular in shape, with a total area of approximately 0.15 ha. The Property consists of a trapezoidal parcel of land south of Lakeshore Road, north of Old Lakeshore Road, and east of Pearl Street. The Property is currently occupied by an existing 1-storey building which is a slab-on-grade structure with no basements (with the exception of a small crawlspace area). The building is presently surrounded by asphalt surface parking and landscaping.

The Property is considered to be in commercial land use by the Ontario Ministry of the Environment, Conservation and Parks (MECP). It is understood that the Property will be developed with a high-rise residential tower with seven (7) levels of underground parking, which will be considered to be in residential land use by the MECP. The Phase Two ESA has been prepared to support a Record of Site Condition and in accordance with Ontario Regulation 153/04 (O.Reg. 153/04).

2.2 Property Ownership

The Property information is provided below:

Municipal Address	2072 Lakeshore Road, Burlington, ON
Legal Description	Part of Lots 2, 3, and 4, Registered Plan 92, City of Burlington
PIN(s)	07061-0009
Current Land Use	Commercial
Property Owner Information	Acamar Dwelling Corp.
Person who has engaged the Qualified Person to conduct the Phase One ESA	Gabe DiMartino; Trinity Point

2.3 Current and Proposed Future Uses

The Property is considered to be in commercial land use as defined by the Ontario Ministry of the Environment, Conservation and Parks (MECP) O.Reg 153/04.

The Property will be developed with residential land use as defined by the O.Reg 153/04, including a high-rise residential tower with seven (7) levels of underground parking.

2.4 Applicable Site Condition Standard

The applicable site condition standard for the Phase Two Property is determined to be Table 3 Site Condition Standard for Residential/Parkland/Institutional in non-potable groundwater condition for coarse textured soil due to the following reasons:

Current Land Use	Commercial
Future Land Use	Residential
Soil Texture	Coarse based on grain size analysis performed on the soil (Appendix D)
Potable Water Source	Municipal service
Bedrock Depth	Bedrock is located at a depth of greater than 2 m.
Property located within 30 m of a surface water body (Yes/No)	No
Property located in or adjacent to a provincial park or an Area of Natural Significance (Yes/No)	No

Grounded Engineering Inc. notified the City of Burlington Clerk of the intention to use non-potable groundwater standards on May 9, 2023. No objections have been received to the use of non-potable groundwater standards.

3 Background Information

3.1 Physical Setting

The Ministry of Natural Resources and Forestry (MNRF) and Ministry of Energy, Northern Development and Mines (MENDM) database were searched to obtain topographic and geological maps of Ontario for review. The information obtained are summarized below:

Records	Information
Topographic Maps	The Property has an approximate ground surface elevation of 82 - 83 masl and is generally flat.
Hydrology	The Property is located within the Lower Rambo Creek Watershed. Locally, groundwater is anticipated to flow southeast towards Lake Ontario, approximately 60 m south of the Property.

Records	Information
Geological Maps	Overburden: The overburden soils are composed of clay to silt textured till derived from glaciolacustrine deposits or shale, underlain by bedrock. Bedrock: Bedrock beneath the site is composed of shale, limestone, dolostone and siltstone and is part of the Queenston Formation. Depth to Bedrock: Based on well records within the Study Area, bedrock is encountered at approximately 6 mbgs.

Maps from MNRF were reviewed to determine if water bodies were present on the Property and within the Study Area. The Ontario Ministry of Natural Resources National Heritage Information Centre database for Areas of Natural or Scientific Interest (ANSIs) was also reviewed as part of the Phase Two ESA. The information is summarized below:

Water Bodies	Property: • No water bodies are located on the Property. Study Area: • Lake Ontario, approximately 60 m south • Rambo Creek, approximately 170 m east
Wetlands	Property: • No Provincially Significant, Non-Provincially Significant, and Unevaluated wetlands are located on the Property. Study Area: • No Provincially Significant, Non-Provincially Significant, and Unevaluated wetlands are located within the Study Area.
ANSIs	Property: • No Provincially Significant Life Science and Earth Science ANSIs are located on the Property. Study Area: • No Provincially Significant Life Science and Earth Science ANSIs are located within the Study Area.

The Areas of Natural Significances (ANSIs) and water bodies on or adjacent to the Property is shown in Figure 2, if present.

3.2 Past Investigations

The following environmental reports were provided for review for the Property. The findings of the reports are summarized below:

Title and File No.	Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233963
Report Date	April 1, 2022
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The Property was considered to be in commercial land use. • The Phase I ESA was completed for due diligence purposes. • At the time of the site inspection, the Property was occupied by a two-story office building, reportedly constructed in 1910. An addition was constructed on the north portion of the building between 1995 and 1998. The building had a crawl space under the southeast portion of the building. • The report summarized a prior Phase I ESA that was completed by EACL in 2002. The report indicated that a former gasoline station was present on the Property (formerly 2071 Lakeshore Road) between 1950 and early 1980s. No tank decommissioning documents were provided for review. The EACL report was not provided to Grounded for review. • The report identified the following APEC causing PCAs: ○ An inferred pump island associated with a historical automotive service station was observed in the central and southwest portion of the Property. • The Phase I ESA recommended a Phase II ESA to investigate this PCA.

Title and File No.	Phase II Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233698.001
Report Date	March 5, 2019
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The Phase II ESA was completed to assess the former gasoline station that was on-Site. • Three boreholes (PIN-MW01 to PIN-MW03) were advanced to depth of 4.57 meters below ground surface (mbgs). Each of the boreholes were finished with a monitoring well. The Property was considered to be in commercial land use. • The soil stratigraphy consists of sand with gravel to a maximum depth of 2.1 mbgs. Native materials consisted of silt with trace weather shale that extended to a maximum depth of 3 mbgs. Shale was encountered at the Property around 3 mbgs. • Soil and groundwater samples were collected from each borehole/monitoring well and submitted for the analysis of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOC) and/or lead.

	The results were compared to the 2011 Table 3 Site Condition Standards for coarse textured soil and residential property use (2011 Table 3 SCS). • Soil results indicated that there were no concentrations above the standard for PHC, PAHs or VOCs. There were exceedances of lead in borehole MW02, which had a concentration of 130 ug/g, exceeding the 2011 Table 3 SCS of 120 ug/g. • The groundwater results indicated there were no concentrations exceeding the 2011 Table 3 SCS for PHCs, VOCs, PAHs and lead. • The report concluded that no additional investigations were required at the time.

Title and File No.	Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233963.002
Report Date	April 1, 2022
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The report did not identify any new findings since the previous reports were written.

Title and File No.	Phase One Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. DRAFT. File No: 22-282
Report Date	May 18, 2023
Prepared By	Grounded Engineering Inc.
Prepared for	Trinity Point

Description of Data, Analysis or Findings	• The Phase One ESA was prepared for the purposes of filing a Record of Site Condition, in accordance with Ontario Regulation 153/04.
	• The Phase One Property is located at 2072 Lakeshore Road, Burlington.
	• At the time of the site inspection completed on February 27th, 2023 the Property was occupied by one commercial building.
	  ○ The building was built prior to 1970 with an addition constructed in 1995.
	  ○ The building was reportedly heated by a natural gas-fired furnace unit.
	  ○ Due to the age and construction of the homes, the presence of asbestos, PCB-containing materals and lead-based paints were suspected.
	  ○ One (1) decommissioned above ground storage tank (AST) was observed on the Property within the crawlspace under the building.
	• The Phase One ESA identified five (5) Areas of Potential Environmental Concern (APECs).

	○ **APEC 1 (Central Portion of Phase One Property):** associated with former gas station and UST located on the Property. ○ **APEC 2 (Entire Phase One Property):** associated with importation of fill material of unknown quality throughout the Property. ○ **APEC 3 (Exterior Portions of Phase One Property):** associated with de-icing activities on and adjacent to the Property. ○ **APEC 4 (Northern Portion of Phase One Property):** associated with former machine shop located adjacent north to the Property. ○ **APEC 5 (Southwestern Portion of Phase One Property):** associated with two (2) USTs located adjacent south of the Property. • The CoPCs associated with the three (3) APECs identified at the Property were M, As, Sb, Se, CN-, Hg, Cr(VI), B-HWS, EC, SAR, Na, Cl-, PAHs, PHCs, BTEX, VOCs, in soil and/or groundwater. • Based on the Phase One ESA, a Phase Two ESA is required to investigate the APECs identified prior to submission for a Record of Site Condition (RSC).

The PCAs and APEC locations are provided in Figure 2.

4 Scope of the Investigation

For discussion and illustration purposes, the information from the 2019 Phase II ESA completed by Pinchin Ltd. (Pinchin) has been relied upon and included in the following sections of this Phase Two ESA report and figures.

4.1 Overview of Site Investigation

The scope of the Phase Two ESA is as follow:

Boreholes and Monitoring Wells	**Pinchin Investigation (2019):** • Advanced three (3) boreholes (PIN-MW01 to PIN-MW03) to depths of 4.57 m below ground surface (m bgs) • Installed three (3) monitoring wells (PIN-MW01 to PIN-MW03). **Grounded Investigation (2023):** • Advanced seven (7) boreholes (BH101 to BH107) to depths of 8.0 to 27.9 m below ground surface (m bgs) • Installed seven (7) monitoring wells (BH101 to BH107) **Grounded Investigation (2024):** • Advanced six (6) boreholes (BH201 to BH206) to depths of 2 to 10 mbgs • Installed two (2) monitoring wells (BH201 to BH202)
Parameters Investigated for Soil	**Pinchin Investigation (2019):** • Lead (Pb) • PAHs

	• PHCs
	• BTEX
	• VOCs
	Grounded Investigations (2023-2024):
	• M
	• H-M
	  ○ As, Se, Sb
	• ORPs
	  ○ B-HWS, CN-, EC, SAR, Cr(VI), Hg, pH
	• PAHs
	• PHCs
	• BTEX
	• VOCs

Parameters Investigated for Groundwater	**Pinchin Investigation (2019):**
	• Pb
	• PAHs
	• PHCs
	• BTEX
	• VOCs
	Grounded Investigations (2023-2024):
	• M
	• H-M
	  ○ As, Se, Sb
	• ORPs
	  ○ CN-, Na, Cl, Cr(VI), Hg, pH
	• PAHs
	• PHCs
	• BTEX
	• VOCs

• 3 soil samples were submitted for grain size analysis and soil classification by Grounded. • All boreholes and monitoring wells were surveyed to a geodetic benchmark. • All new monitoring wells were developed prior to sampling. • Groundwater level measurements were conducted in all accessible monitoring wells to determine groundwater elevation on the Property.	

4.2 Media Investigated

4.2.1 Rationale for Exclusion and Inclusion of Media

Media	Included/Excluded	Rationale
Soil	Included	Based on the Phase One ESA, soil sampling was required to investigate the CoPCs related to the identified APECs.
Sediment	Excluded	Surface water bodies were not presented on the Property. No sediment sampling was conducted during the Phase Two ESA.
Groundwater	Included	Based on the Phase One ESA, groundwater sampling was required to investigate the CoPCs related to the identified APECs.
Surface Water	Excluded	Surface water bodies were not presented on the Property. No surface water sampling was conducted during the Phase Two ESA.

4.2.2 Overview of Field Investigation of Media

Soil sampling was conducted during the drilling investigation. Groundwater sampling was conducted from the new monitoring wells installed on the Property.

4.3 Phase One Conceptual Site Model

The Phase One Conceptual Site Model (CSM) prepared as part of the Phase One ESA report is provided in Appendix A.

4.4 Deviations From Sampling and Analysis Plan

A groundwater sample could not be collected from monitoring well BH105, as discussed below. No other deviations from the sampling and analysis plan were observed. The Sampling and Analysis Plan is provided in Appendix B.

4.5 Impediments

Monitoring well BH105 was installed in the central west portion of the Site to investigate the former underground storage tank in that vicinity of the Property (APEC 1). The monitoring well did not produce enough groundwater for sampling, and as such, the APEC has not been fully assessed and additional investigation will be required.

No other impediments were encountered during the Phase Two ESA.

5 Investigation Method

5.1 General

The Phase Two ESA followed the methods outlined in the Ontario Ministry of the Environment, Conservation, and Parks "Guidance *on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* (December 1996).

The methods used in the Phase Two ESA did not differ from the associated standard operating procedures. The Standard Field Investigation Protocol is provided in Appendix C.

5.2 Drilling

The Phase Two ESA drilling information is provided below:

Boreholes	**Pinchin:** PIN-MW01 to PIN-MW03	**Grounded 2023:** BH101 to BH107	**Grounded 2024:** BH201 to BH206
Date of Work	February 2, 2019	March 7 to 15, 2023	June 15 & 26, 2024
Name of the Contractor(s)	Strata Drilling Group	Geo-Environmental Drilling Inc.	Strata Drilling Group
Equipment Used	Geoprobe 7822 DT direct push drill rig 3.81 cm inner diameter direct push soil samplers	LC drill rig Hollow Stem Augers 50mm sampling spoon	Geo Probe Solid Stem Augers
Measures for Cross-contamination Prevention	Single-use sample liners were used between each sample to prevent potential cross-contamination	The split spoon sampling device was washed between each sample to prevent potential cross-contamination	Single-use sample liners were used between each sample to prevent potential cross-contamination
Sampling Frequency	Please refer to the borehole logs in Appendix D for the sampling frequency	Please refer to the borehole logs in Appendix D for the sampling frequency	Please refer to the borehole logs in Appendix D for the sampling frequency

The borehole locations are provided in Figure 4.

5.3 Soil – Sampling

5.3.1 Equipment Used

Below is the equipment used during the soil sampling.

- Sampling containers supplied by the laboratories
- Nitrile gloves
- Cooler with ice
- RKI EAGLE 2 gas monitor

5.3.2 Geological Description

The borehole logs in Appendix D provide an overall geological description of each soil sample collected during the 2019 Phase II ESA and 2023 Phase Two ESA.

5.4 Soil – Field Screening Measurements

Hydrocarbon vapour concentrations were screened in each soil sampling, using an RKI Eagle 2 gas monitor. The monitor is calibrated to *n*-hexane prior to field screening as per the calibration procedure outlined by RKI Instruments in *"Eagle 2 Operator's Manual, Part Number:71-0154RK"* released March 12, 2019. The monitor has a range of 0 to 40,000 parts per million (ppm) and an accuracy of +/- 5%.

Based on field screening measurements and visual and olfactory examination of all soil samples, selected samples were submitted for petroleum hydrocarbon (PHCs) and volatile organic compounds (VOCs) laboratory analysis. Complete field screening readings are provided on the borehole logs in Appendix D.

5.5 Groundwater – Field Measurement of Water Quality Parameters

Water quality parameters including temperature, pH, specific conductivity, total dissolved solids were measured using a YSI water quality sensor prior to sampling.

5.6 Groundwater – Monitoring Well Installation

The Phase Two ESA monitoring well installation information is provided below:

Monitoring Wells	**Pinchin:** PIN-MW01 to PIN-MW03	**Grounded 2023:** BH101 to BH107	**Grounded 2024:** BH201 and BH202
Date of Work	February 2, 2019	March 7 to 15, 2023	June 15 & 26, 2024
Name of the Contractor(s)	Strata Drilling Group	Geo-Environmental Drilling Inc.	Strata Drilling Group
Equipment Used	Geoprobe 7822 DT direct push drill rig 3.81 cm inner diameter direct push soil samplers	LC drill rig Hollow Stem Augers 50mm sampling spoon	Geoprobe 7822 DT direct push drill rig

Measures for Cross-contamination Prevention	New well materials were used during install and drilling technicians donned new nitrile gloves to handle well materials prior to install.	New well materials were used during install and drilling technicians donned new nitrile gloves to handle well materials prior to install.	New well materials were used during install and drilling technicians donned new nitrile gloves to handle well materials prior to install.
Sampling Frequency	No groundwater samples were collected during drilling event.	No groundwater samples were collected during drilling event.	No groundwater samples were collected during drilling event.
Well Construction	The wells were constructed with 50 mm (2 in.) ID PVC screens and risers. Filter sand was placed around the well screen to approximately 0.6 m above the top of the screen. The wells were then backfilled with bentonite to approximately 0.3 m below ground surface (mbgs). The wells were finished with flush mounted casings.	The wells were constructed with 50 mm (2 in.) ID PVC screens and risers. Filter sand was placed around the well screen to approximately 0.6 m above the top of the screen. The wells were then backfilled with bentonite to approximately 0.3 m below ground surface (mbgs). The wells were finished with flush mounted casings.	The wells were constructed with 50 mm (2 in.) ID PVC screens and risers. Filter sand was placed around the well screen to approximately 0.6 m above the top of the screen. The wells were then backfilled with bentonite to approximately 0.3 m below ground surface (mbgs). The wells were finished with flush mounted casings.
Well Development	The monitoring wells were developed on February 3rd, 2019. Well development was conducted with a Low-Density Polyethylene (LDPE) tubing and foot valve. Stabilization of parameters (pH, conductivity, temperature, etc.) of the purged water was monitored before sampling to ensure the samples are representative of the formation water.	The monitoring wells were developed on March 16th, 2023. Well development was conducted with a Low-Density Polyethylene (LDPE) tubing and foot valve. A total volume of 489 L of water was removed during the well development. Stabilization of parameters (pH, conductivity, temperature, etc.) of the purged water was monitored before sampling to ensure the samples are representative of the formation water.	The monitoring wells were developed on July 27th, 2024. Well development was conducted with a Low-Density Polyethylene (LDPE) tubing and foot valve. A total volume of 22 L of water was removed during the well development. Stabilization of parameters (pH, conductivity, temperature, etc.) of the purged water was monitored before sampling to ensure the samples are representative of the formation water.

The monitoring well locations are provided in Figure 4.

5.7 Groundwater – Sampling

The monitoring well was purged with a Low-Density Polyethylene (LDPE) tubing and foot valve and sampled using a bladder pump. The groundwater was purged before sampling to ensure extraction of representative formation groundwater. Stabilization of water quality parameters of the purged water was monitored before a sample was taken to maintain the equilibrium with the surrounding formation water and produce samples that are representative of the formation water.

Sampling methodology from the Ontario Ministry of the Environment, Conservation and Parks (MECP) *"Guidance on Sampling and Analytical Methods for Use at Contaminated Sites In Ontario"*, MECP *"Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation*

153/04" and MECP *"Protocol for Analytical Methods Used in the Assessment of Properties under Par XV.1 of the Environmental Protection Act"* were followed in the collection of the groundwater samples.

5.8 Sediment – Sampling

No sediment sampling was conducted as part of this investigation.

5.9 Analytical Testing

Analytical Testing of all soil and groundwater samples was conducted by Bureau Veritas.

5.10 Residue Management Procedures

Residues from the field investigation were managed accordingly as provided below:

Residues	Management Procedures
Soil Cuttings	Soil cuttings generated during the drilling activities were placed in drums and removed off-site by a licensed subcontractor.
Groundwater	The purge water generated during the well development and groundwater sampling events was disposed of in drums and removed off-site by a licensed subcontractor.
Fluids from Equipment Cleaning	The fluids from cleaning were removed from the Property and disposed by the drilling contractor.

5.11 Elevation Surveying

The elevation of the boreholes on the Property were surveyed using a Sokkia survey system. The Sokkia survey system is a differential global positioning system (GPS) which involves the cooperation of a receiver and tablet. The elevation of each borehole on the Property is presented on the borehole logs in Appendix D.

5.12 Quality Assurance and Quality Control Measures

5.12.1 Containers, Preservation, Labelling, Handling and Chain of Custody

The following laboratory supplied sample containers were used for all sampling conducted on the Property.

Parameter/Group	Containers	
	Soil	Groundwater
Inorganic Parameters: Chromium hexavalent (CrVI), cyanide (CN-), pH, electrical conductivity (EC) Soil only: boron, hot water soluble (B-HWS), sodium adsorption ratio (SAR) Water only: chloride	250 g soil jar	500 mL PET 60 mL plastic (CrVI) 120 mL plastic (CN-)
Metals		250 mL HDPE (Metals)
Mercury (Hg)		60 mL amber glass (Hg)
Volatile Organic Compounds (VOCs) including benzene, toluene, ethylbenzene, xylene (BTEX) and trihalomethanes (THMs)	100 g soil jar 2 x 40 mL pre-weighed methanol 5 g soil plug	2 x 40 mL amber vial (zero headspace)
Petroleum hydrocarbons (PHCs) F1/ BTEX		
Polychlorinated biphenyls (PCBs)	100 g soil jar	1 L amber
PHCs (F2-F4)	100 g soil jar	2 x 100 mL bottles fill to top of label
Polycyclic aromatic hydrocarbons (PAHs)		
Toxicity characteristic leaching procedure (TCLP)	250 g soil jar	-

All sampling containers were equipped with laboratory supplied labels. The labels indicated the following information:

- Sample ID
- Company name
- Date
- Project number

Samples were placed in coolers with ice after collection for transportation to the laboratory. Sample hold times were met for all submitted soil and groundwater samples. Laboratory supplied Chain of Custody forms were completed for all samples submitted for analysis.

5.12.2 Equipment Cleaning Procedures

Equipment	Cleaning Procedures
Soil sampling	Split spoon sampling device was washed between samples to prevent potential cross-contamination.
Groundwater sampling	Water level meter/water quality monitoring meter was cleaned between monitoring wells.

All other dedicated equipment (nitrile gloves, terracores samplers, tubing) were changed between each sample to avoid cross-contamination.

5.12.3 Field Quality Control Measures and Deviations

For quality control purpose, the following actions were taken:

- At least one (1) duplicate sample is submitted for laboratory analysis for every ten (10) samples submitted for laboratory analysis for each sampled medium.
- Daily calibration of field instruments prior to sampling

During the groundwater sampling event July 27, 2024, a trip blank was not included in the submission of the groundwater samples. Given that other forms of field quality control measures were used (i.e., duplicates) and no groundwater impacts were identified, it is the QP's opinion that the lack of a trip blank does not impede the validity of the groundwater results obtained during this investigation.

6 Review and Evaluation

6.1 Geology

Detailed geological information for the Property is presented on the borehole logs in Appendix D. The geology at the Property is summarized below.

Geological Unit Thickness (Estimate)	
Borehole	BH101 to BH107, MW01 to MW03
	Thickness Range (m)
Earth Fill	0 to 3.0
Sand	0.8 to 2.0

Geological Unit Thickness (Estimate)	
Borehole	**BH101 to BH107, MW01 to MW03**
	Thickness Range (m)
Silt/Clayey Silt (Glacial Till)	1.5 to 3.9
Bedrock	> 27.9

Geological Unit Elevations		
Borehole	**BH101 to BH10, MW01 to MW03**	
	Elev. Top Range (masl)	**Elev. Bottom Range (masl)**
Earth Fill	82.8 to 82.3	81.5 to 79.6
Sand	81.5	80.3
Silt/Clayey Silt (Glacial Till)	81.3 to 79.6	79.3 to 78.9
Bedrock	79.3 to 78.9	74.4 to 54.4

6.1.1 Material in Geological Units

Geological Units	Description
Surficial Materials	BH101, BH102, BH104 to BH107, BH201, and MW01 to MW03 encountered a pavement structure consisting of 40 to 65 mm asphaltic concrete. BH103 and BH202 encountered topsoil of 150 mm in thickness.
Earth Fill	Underlying the pavement structure and topsoil, earth fill was encountered at all borehole locations. The earth fill extended to a depth of 0 to 3.0 mbgs (Elev. 82.8 to 79.6 masl). The earth fill generally consisted of sand or silt with some gravel. The earth fill was generally brown and moist.
Sand	Underlying the earth fill, sand was encountered at MW01 to MW03, and BH103. The sand extended to a depth of 0.8 to 2.0 mbgs (Elev. 81.5 to 80.3 masl). The sand generally consisted of some silt and trace amounts of gravel. The sand was generally brown and moist to wet.
Silt/Clayey Silt (Glacial Till)	Underlying the earth fill in BH101, BH102, BH104 to BH107, BH201 and sand in MW01 to MW03, BH103, BH202 an undisturbed native glacial till deposit with a silt and clay matrix was encountered at all boreholes. The silt/clayey silt

Geological Units	Description
	extended to a depth of 1.5 to 3.9 (Elev. of 81.3 to 78.9 masl). The silt/clayey silt generally consisted of trace sand and some gravel. The silt/clayey silt was generally reddish-brown and moist.
Bedrock	Queenston Formation shale bedrock was encountered at a depth of 3.2 mbgs (79.3 masl). The bedrock beneath the site is the Queenston Formation, which is a deposit predominantly comprising thin to medium bedded red to reddish brown calcareous shale and siltstone ("shale" by local convention) of Upper Ordovician age. The low-fissility shale contains grey-green mottling and banding which is occasionally harder than the red shale, possibly indicating a higher carbonate content which is called "limestone" by local convention. However, Queenston shale within the study area is generally calcareous and is interbedded with stronger calcareous sandstone and silty bioclastic carbonate.

6.1.2 Properties of Aquifers and Aquitards

Aquifers/Aquitards	Description
Earth Fill	The earth fill on the Property is considered to be an unconfined aquifer. The earth fill likely drains into the catch basins onsite or storm water systems adjacent to the Property.
Sand	The native soil consisting of sand is considered to be an unconfined aquifer due to the high permeability of the soils.
Silt and Clay (Glacial Till)	The native soil consisting of clayey silt is considered to be an aquitard due to the low permeability of the soils.
Bedrock	The bedrock on the Property is considered to be an aquitard.

6.1.3 Rationale for Choice of Aquifers and Aquitards Investigated

The bedrock layer was chosen for investigation. This stratum was chosen for investigation because:

- Limited groundwater present in the overburden
- Possibility of free groundwater present within the bedrock
- The possible location of mobile contamination from the native overburden
- The likelihood of horizontal migration of groundwater across the site

6.2 Groundwater: Elevations and Flow Direction

A total of twelve (12) monitoring wells have been installed by Grounded Engineering Inc. and Pinchin Ltd. The monitoring wells were located within the APECs identified in the Phase One ESA (Grounded, 2023) for the Property. Screened intervals of the monitoring wells were selected for

the collection of groundwater samples within the desired stratum. Groundwater samples were collected from BH104, BH106, BH107, PIN-MW01, PIN-MW03 and BH202. Monitoring well PIN-MW02 was observed to be damaged and could not be sampled. Monitoring well BH105 and BH202 were dry at the time of the Phase Two ESA and could not be sampled. Monitoring wells BH101 and BH103 were screened in the deeper bedrock for hydrogeological purposes, outside of APECs and were not sampled as part of the Phase Two ESA.

Eight groundwater level measurements were conducted by Grounded Engineering Inc. in the newly installed and useable existing monitoring wells using a Solinst interface probe on the following dates:

- March 20, 2023
- April 3, 2023
- May 5, 2023
- June 9, 2023
- July 7, 2023
- July 3, 2024
- July 11, 2024
- July 27, 2024
- December 10, 2024

To calculate the groundwater elevation in the monitoring well, the following calculation was completed:

- *Geodetic Ground Elevation (masl) – Measured Depth to Water Table (m) + Stick up of Well (m) = Groundwater Elevation (masl)*

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) or free-flowing products were detected on the Property. The groundwater levels are presented in Table 1 and Figure 5.

The design groundwater table is hydraulically connected with the water level of Lake Ontario, at about Elev. 75± m. There is also infiltrated stormwater perched in the earth fill which is flowing down towards the groundwater table (as observed and previously reported in the Pinchin monitoring wells).

Locally higher water level readings (higher than Elev. 77± m) were observed in boreholes BH104, PIN-MW01, PIN-MW02 and PIN-MW03. These higher water level readings are considered not representative of the stabilized groundwater condition across the site.

Additional groundwater data will be required to assess seasonal variability in groundwater elevations and flow direction.

6.3 Groundwater: Hydraulic Gradients

Horizontal Hydraulic Gradients	The horizontal hydraulic gradient at the Property ranged from 0.01 to 0.09 m/m based on the groundwater levels in monitoring wells BH101, BH103 and BH104.
Vertical Hydraulic Gradients	Based on the location and depths of the installed monitoring wells, the vertical gradient could not be calculated.
Hydraulic Conductivity	Earth fill – 1.0 x 10^{-6} m/s (estimated via published literature values (Freeze and Cherry, 1979)) Sands – 1.0 x 10^{-5} m/s (estimated via published literature values (Freeze and Cherry, 1979)) Clayey Silt – 1.0 x 10^{-7} m/s (estimated via published literature values (Freeze and Cherry, 1979)) Bedrock – 2.8 X 10^{-7} to 4.3 X 10^{-6} based on the rising and falling head tests completed by Grounded as documented in the Hydrogeological Investigation (June 2023)

6.4 Fine-Medium Soil Texture

Grain size analyses were completed for selected soil samples from the boreholes at the Property. The grain size analysis is provided in Appendix E.

Fine-medium soil texture was not used during the Phase Two ESA. All chemical results were compared to the coarse textured standards.

6.5 Soil – Field Screening

Based on field screening measurements and visual and olfactory examination of all soil samples, selected samples were submitted for petroleum hydrocarbon (PHCs) and volatile organic compounds (VOCs) laboratory analysis. Complete field screening readings are provided on the borehole logs in Appendix D. No anomalous organic vapour readings were identified to indicate the presence of any volatile contaminants.

6.6 Soil – Quality

For discussion and illustration purposes, the analytical information from the 2019 Phase II ESA completed by Pinchin has been relied upon and included in the following sections of this Phase Two ESA report and figures.

6.6.1 Location and Depth of Samples

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
Pinchin (2019)										

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
MW01-1	0.1 - 1.5	82.3 - 80.9	Sand	1,2	✓			✓	✓	✓
MW01-2	1.5 - 2.1	80.9 - 80.3	Sand	1,2	✓			✓	✓	✓
MW01-3	2.1 - 3.0	80.3 - 79.3	Silt	1,2	✓			✓	✓	✓
MW02-3	1.5 - 2.1	81.0 - 80.4	Sand	2	✓			✓	✓	✓
MW03-2	0.8 - 1.5	81.7 - 80.9	Sand	2	✓			✓	✓	✓
MW03-3	1.5 - 2.0	80.9 - 80.5	Sand	2	✓			✓	✓	✓
Grounded (2023)										
BH101 SS3	1.5 - 2.1	81.1 - 80.5	Fill	2,3	✓	✓	✓	✓	✓	✓
BH101 SS4	2.3 - 2.9	80.3 - 79.7	Fill	2,3	✓	✓	✓	✓	✓	✓
BH102 SS2	0.8 - 1.4	81.6 - 81.0	Fill	2				✓	✓	✓
BH102 SS3A	1.5 - 2.1	80.8 - 80.3	Fill	3	✓	✓	✓			
BH102 SS4	2.3 - 2.9	80.1 - 79.5	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH103 SS2	0.8 - 1.4	81.6 - 81.0	Sand	2				✓	✓	✓
BH103 SS3A	1.5 - 2.0	80.8 - 80.4	Sand	2,3	✓	✓	✓			
BH103 SS4	2.3 - 2.9	80.1 - 79.4	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH104 SS1	0.0 - 0.6	82.8 - 82.2	Fill	2,3	✓	✓	✓	✓	✓	✓
BH104 SS3	1.5 - 2.1	81.2 - 80.6	Clayey Silt Till	2				✓	✓	✓
BH104 SS4	2.3 - 2.9	80.5 - 79.9	Clayey Silt Till	3	✓	✓	✓			

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
BH105 SS2	0.8 - 1.4	81.7 - 81.1	Fill	1,2,3	✓	✓	✓	✓	✓	✓
BH105 SS4	2.3 - 2.9	80.2 - 79.6	Clayey Silt Till	1,2,3	✓	✓	✓	✓	✓	✓
BH106 SS3	1.5 - 2.1	81.0 - 80.3	Fill	2,3	✓	✓	✓	✓	✓	✓
BH106 SS4	2.3 - 2.9	80.2 - 79.6	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH107 SS3	1.5 - 2.1	80.8 - 80.2	Fill	1,2,3	✓	✓	✓	✓	✓	✓
BH107 SS4	2.3 - 2.9	80.0 - 79.4	Clayey Silt Till	1,2,3	✓	✓	✓	✓	✓	✓
Grounded (2024)										
BH201 DP2	0.8 - 1.5	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH201 DP4A	2.3 - 2.8	80.2 - 79.7	Fill	Delineation					✓	
BH202 DP2	0.8 - 1.5	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH203 DP5	2.4 - 3.0	80.1 - 79.5	Clayey Silt Till	Delineation					✓	
BH204 DP5	2.4 - 3.0	80.3 - 79.6	Clayey Silt Till	Delineation	✓	✓	✓			
BH205 DP2	0.6 - 1.2	82.3 - 81.7	Fill	Delineation						
BH205 DP4	1.8 - 2.3	81.1 - 80.6	Clayey Silt Till	Delineation					✓	
BH206 DP3	1.2 - 1.8	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH206 DP4	1.8 - 2.4	81.0 - 80.4	Clayey Silt Till	Delineation					✓	

*During the Pinchin (2019) investigation, soil samples were submitted for the following select metals: lead (Pb)
**Soil samples were submitted for the following select ORPs: Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)), low or high pH, Boron Hot-Water Soluble, EC, SAR

6.6.2 Comparison to Applicable Standards

Selected soil samples were analyzed for Contaminants of Potential Concern (CoPCs) of the following:

- Metals
- Hydride-Forming Metals
  - Sb, As, Se
- Select ORPs
  - B-HWS
  - CN-
  - EC
  - SAR
  - Cr(VI)
  - Hg
- PAHs
- PHCs
- BTEX
- VOCs

The results of the analysis were compared to the applicable Site Condition Standard for the Phase Two Property Table 3 RPI. The laboratory certificates of analysis are provided in Appendix F, and the results of the soil chemical analysis are provided in Tables 2 to 5 and presented on Figures 6 to 11.

Comparison Table (Table 3 RPI Standard)		
Parameter Analyzed	**Exceed/Meet**	**Note:**
Metals	Exceed	PIN-MW02 • DP3 exceeded standards for Lead (Standard: 120 µg/g, Result: 130 µg/g) • Reportedly, two aliquots from soil sample MW02-3 were analyzed for lead by Maxxam. The average concentration of lead in the three soil samples (including the original sample) were below the Table 3 Standard (117 µg/g vs. the Table 3 Standard of 120 µg/g). Grounded notes that the Certificates of Analysis for the extra analyses were not included in the Pinchin report. BH101: • SS3 exceeded standards for Cadmium (Standard: 1.2 µg/g, Result: 1.3 µg/g) and Zinc (Standard: 340 µg/g, Result: 720 µg/g)

Comparison Table (Table 3 RPI Standard)		
Parameter Analyzed	**Exceed/Meet**	**Note:**
		• SS4 exceeded standards for Cadmium (Standard: 1.2 µg/g, Result: 1.3 µg/g) and Zinc (Standard: 340 µg/g, Result: 720 µg/g) BH102: • SS3A exceeded standards for Cadmium (Standard: 1.2 µg/g, Result: 1.3 µg/g) and Zinc (Standard: 340 µg/g, Result: 750 µg/g) • DUP023 exceeded standards for Cadmium (Standard: 1.2 µg/g, Result: 1.3 µg/g) and Zinc (Standard: 340 µg/g, Result: 730 µg/g) BH105: • SS2 exceeded standards for Zinc (Standard: 340 µg/g, Result: 750 µg/g) BH106: • SS3 exceeded standards for Zinc (Standard: 340 µg/g, Result: 700 µg/g) BH107: • SS3 exceeded standards for Cadmium (Standard: 1.2 µg/g, Result: 1.3 µg/g) and Zinc (Standard: 340 µg/g, Result: 710 µg/g) BH201: • DP2 exceeded standards for Zinc (Standard: 340 µg/g, Result: 660 µg/g)
Hydride-forming Metals	Meet	None
ORPs	Meet	*None. Refer to section 6.6.2.1*
PAHs	Meet	None
PHC	Exceed	BH104 • SS3 exceeded standards for PHC (F3) (Standard: 300 µg/g, Result: 340 µg/g)
BTEX	Meet	None
VOC	Meet	None

6.6.2.1 Exemption of Salt Related Exceedances in Soil (O.Reg. 153/04 Sec 49.1 (1))

Chemical analysis of the soil indicates that there are exceedances of the MECP Table 3 RPI Standards for Electrical Conductivity and Sodium Adsorption Ratio (salt related compound) within the upper soils.

The Property is bound by municipal roadways to the north (Lakeshore Road), south (Old Lakeshore Road), and west (Pearl Street). The roadways have public sidewalks between the road and the Property boundary. The Property features construction vehicle traffic and car parking. The roadways, sidewalks, and parking area are all salted during the winter months for safety purposes.

The Qualified Person has determined, based on the Phase One Environmental Site Assessment and the Phase Two Environmental Site Assessment, that a substance (salt) has been applied to surfaces of the roadway, sidewalks, driveway and parking area for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (application of salt for safety purposes during winter months). As per O.Reg. 153/04 49.1 the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

6.6.3 Contaminants of Concern

The Contaminants of Concern associated with the earth fill on the Property are:

- Cadmium
- Lead
- zinc

The Contaminant of Concern associated with the native soil on the Property is:

- PHC (F3)

6.6.4 Contamination Impact on Other Media

The contaminants could potentially migrate from the fill material into the native soil and groundwater via diffusion. The metal impacts were primarily identified in the fill and PHC impacts were identified in the upper native soil, which has been inferred to extend down to bedrock. Based on the results of the investigation no contaminants were identified in groundwater. It is unlikely that other media on the Property will be impacted.

6.6.5 Chemical or Biological Transformations

It is noted that as there are no aquatic systems such as surface water bodies, wetlands, and sediments present at the Property, the metals and PHC impacts are limited to unsaturated soils only. Additionally, it is expected that the metals and PHC impacted soil will be removed from the Property through remedial excavations. Confirmatory sampling will be completed as part of further remedial work and will be included in the Final Phase Two ESA.

6.6.6 Presence of Light or Dense Non-Aqueous Phase Liquids

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were detected in the soil on the Property.

6.7 Groundwater Quality

For discussion and illustration purposes, the analytical information from the 2019 Phase II ESA completed by Pinchin has been relied upon and included in the following sections of this Phase Two ESA report and figures.

6.7.1 Location and Depth of Samples

Sample ID	Screen Depth		Screen Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
Pinchin (2019)										
MW01	1.5 - 4.6	80.9 - 77.8	Silt Till	1,2,4				✓	✓	✓
MW02	1.5 - 4.6	81.0 - 78.0	Silt Till	2	✓			✓	✓	✓
MW03	1.5 - 4.6	80.9 - 77.9	Silt Till	2,5	✓			✓	✓	✓
Grounded (2023)										
BH104	6.7 - 9.7	76.1 - 73.1	Shale	2,3,4	✓	✓	✓	✓	✓	✓
DUP (BH104)	6.7 - 9.7	76.1 - 73.1	Shale	2,3,4	✓	✓	✓	✓	✓	✓
BH106	4.9 - 7.9	77.6 - 74.6	Shale	2,3,5	✓	✓	✓	✓	✓	✓
BH107	6.5 - 9.5	75.9 - 72.8	Shale	1,2,3	✓	✓	✓	✓	✓	✓
Grounded (2024)										
BH202	7.0-10.1	75.5-72.4	Shale	5	✓	✓	✓	✓	✓	✓

*During the Pinchin (2019) investigation, groundwater samples were submitted for the following select metals: lead (Pb)
**Groundwater samples were submitted for the following select ORPs: Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)), low or high pH, Chloride (Cl)

Monitoring well BH201 was installed to assess the groundwater quality in the area of the former UST. Following several attempts to flush the monitoring well, the monitoring did not yield enough groundwater for sampling.

Field filtering as per the requirements of the MECP *"Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act"* July 2011, was completed.

6.7.2 Comparison to Applicable Standards

Selected groundwater samples were analyzed for Contaminants of Potential Concern (CoPCs) of the following:

- Metals
- Hydride-forming metals
    - Sb, As, Se
- Selected Other Regulated Parameters (ORPs)
    - Cr(VI), CN-, Hg, Cl-
- Na
- PAHs
- PHCs
- BTEX
- VOCs

The results of the analysis were compared to the applicable Site Condition Standard for the Phase Two Property Table 3 RPI. The laboratory certificates of analysis are provided in Appendix F, and the results of the groundwater chemical analysis are provided in Table 6 to 9 and presented on Figures 12 to 14.

Comparison Table (Table 3 RPI Standard)		
Parameter Analyzed	**Exceed/Meet**	**Note:**
Metals	Meet	None
Hydride-forming Metals	Meet	None
ORPs	Meet	*None. Refer to section 6.7.2.1*
PAHs	Meet	None
PHC	Meet	None
BTEX	Meet	None
VOC	Meet	None

6.7.2.1 Exemption of Salt Related Exceedances in Groundwater (O.Reg. 153/04 Sec 49.1 (1))

Chemical analysis of the groundwater indicates that there are exceedances of the MECP Table 3 RPI Standards for Chloride (salt related compound) within the groundwater.

The Property is bound by municipal roadways to the north (Lakeshore Road), south (Old Lakeshore Road), and west (Pearl Street). The roadways have public sidewalks between the road and the Property boundary. The Property features construction vehicle traffic and car parking. The roadways, sidewalks, and parking area are all salted during the winter months for safety purposes.

The Qualified Person has determined, based on the Phase One Environmental Site Assessment and the Phase Two Environmental Site Assessment, that a substance (salt) has been applied to surfaces of the roadway, sidewalks, driveway and parking area for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (application of salt for safety purposes during winter months). As per O.Reg. 153/04 49.1 the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

6.7.3 Contaminants of Concern

No Contaminants of Concern were identified in the groundwater on the Property.

6.7.4 Contamination Impact on Other Media

No Contaminants of Concern were identified with the groundwater on the Property. It is unlikely that other media on the Property will be impacted.

6.7.5 Chemical or Biological Transformations

No chemical or biological transformations are likely to occur since no Contaminants of Concern were identified in the groundwater on the Property.

6.7.6 Presence of Light or Dense Non-Aqueous Phase Liquids

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were detected in the soil on the Property.

6.8 Sediment – Quality

Sediment was not present at the Property thus was not investigated as part of the Phase Two ESA.

6.9 Quality Assurance and Quality Control Results

Quality Assurance (QA) and Quality Control (QC) were maintained as per described in Section 5.12 above. In addition, laboratory results were compared to MECP standards for QA/QC

under Ontario Regulation 153/04 which requires laboratory results to meet specific method detection limit (MDL) conditions. The sampling and analysis performed conformed with the following guidelines:

1. Ministry of the Environment, Conservation and Parks Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.
2. Protocol of Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act of Ontario.

Duplicated samples were submitted at a rate of 10% for both soil and groundwater samples.

All the samples collected and submitted for analysis adhered to the holding times, preservation methods, storage requirement and container type as specified by the guidelines listed above.

6.9.1 Subsection 47 (3) of the Regulation

All certificates of analysis or analytical reports received pursuant to clause 47 (2) (b) of the regulation comply with subsection 47 (3). A certificate of analysis or analytical report has been received for each sample submitted for analysis. All certificates of analysis or analytical reports received have been in full in an appendix to the Phase Two ESA report.

6.9.2 Laboratory Qualification of Results

The laboratory did not make any significant comments that changed the outcome of the analytical results regarding the soil and groundwater samples.

6.9.3 Overall Quality of Field Data

Decision-making related to the quality of field data of the Property was not affected. The overall quality of the field data was considered by the Qualified Person to meet the objectives of the investigation and assessment.

6.10 Phase Two Conceptual Site Model

Phase Two Conceptual Site Model (CSM) is prepared for the Property and is provided in Appendix G.

7 Conclusions

The location and concentration of contamination is provided below:

Land	There were exceedances of the applicable Site Condition Standards noted in the earth fill for Cadmium, Lead and Zinc and native soils for PHC (F3). All soil exceedance locates are presented in Figures 6 to 11.

Groundwater	No exceedances of the applicable Site Condition Standards were identified in the groundwater on the Property. A groundwater sample could not be collected from BH201, a critical location to assess APEC 1. As such, groundwater quality in this APEC is unknown and requires further investigation.

Exceedances of the applicable Site Condition Standards were identified in the soil on the Property and there are uncertainties regarding groundwater quality within APEC 1. As such, additional investigations followed by remediation/risk assessment (RA) may be required before a Record of Site Condition (RSC) can be filed for the Property.

Whether applicable Site Condition Standards and standards specified in a risk assessment for contaminants on, in or under the phase two property were met as of the certification date is provided below:

Soil	**Earth Fill**	The applicable Site Condition Standards were **not met** in the earth fill located on the Property.
	Native	The applicable Site Condition Standards were **not met** in the native soils located on the Property.
Groundwater		The applicable Site Condition Standards were **met** in the groundwater located on the Property; however, additional information is required to investigate APEC 1.

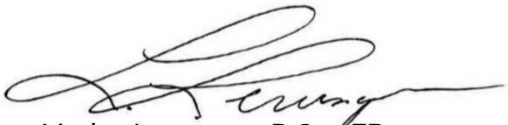
7.1 Signatures

The Preliminary Phase Two ESA has been completed in accordance with O. Reg. 153/04 by Lindsy Levesque, B.Sc., EP and Freesia Waxman, P.Eng., QP_{ESA}. The findings and conclusions presented in this report have been determined based on the information that was obtained and reviewed from previous investigations provided and on the current investigation for the Phase Two Property.

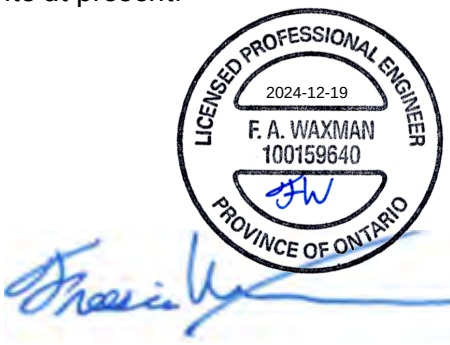
We trust that this report meets your requirements at present.

For and on behalf of our team,

GROUNDED ENGINEERING



Lindsy Levesque, B.Sc., EP
Consultant



Freesia Waxman, M.A.Sc., P.Eng., QP_{ESA}
Team Lead, Senior Engineer

8 References

1. Grounded Engineering Inc. Geotechnical, Hydrogeological, and Environmental Engineering Feasibility, 2027 Lakeshore Road, Burlington, ON File No.: 22-282. Issued November 25, 2022
2. Grounded Engineering Inc. Phase One Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. DRAFT. File No.: 22-282. Issued May 18, 2023.
3. Grounded Engineering Inc. Hydrogeological Review Report, 2027 Lakeshore Road, Burlington, ON File No.: 22-282. Issued July 20, 2023
4. Preliminary Excess Soil Management Results, , 2072 Lakeshore Road, Burlington, Ontario File No.: 22-282. Issued July 21, 2023
5. Grounded Engineering Inc. Geotechnical Engineering Report, 2027 Lakeshore Road, Burlington, ON File No.: 22-282. Issued July 4, 2023
6. Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.
7. Ontario Ministry of the Environment, April 2011. *Soil, Ground Water and Sediment Standards for use under Part XV. 1*
8. Ontario Ministry of the Environment, June 2011. *Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04*.
9. Ontario Ministry of the Environment, July 2011. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV. 1 of the Environmental Protection Act*.
10. Pinchin Ltd. Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No.: 233963. Issued January 11, 2019.
11. Pinchin Ltd. Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No.: 233963.002. Issued April 1, 2022.
12. Pinchin Ltd. Phase II Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No.: 233698.001. Issued March 9, 2019.

9 Limitations and Restrictions

The Phase Two ESA report was prepared for the purpose of identifying potential environmental concerns, including an assessment of the likelihood that the environmental quality of the soil and groundwater at the Property may have been adversely affected by past or present practices at the Property, and/or those of the adjacent properties prior to development of the Property. Any use of which a third party makes of this report, or any reliance on or decision to be made based on it, are the responsibility of such third parties. Grounded Engineering Inc. does not assume any responsibility for errors, omissions, damages or other limitation pertaining to third parties.

The information presented in this report is based on information collected during the completion of the subsurface investigation conducted by Grounded Engineering Inc. It is based on conditions at the Property at the time of the inspection. The subsurface conditions were assessed based on information collected at specific borehole and monitoring well locations. The actual subsurface conditions between sampling points may be different.

The conclusions presented in this report are based on work undertaken by trained professional and technical staff and are the product of professional care and competence. The report cannot be construed as legal advice or as an absolute guarantee.

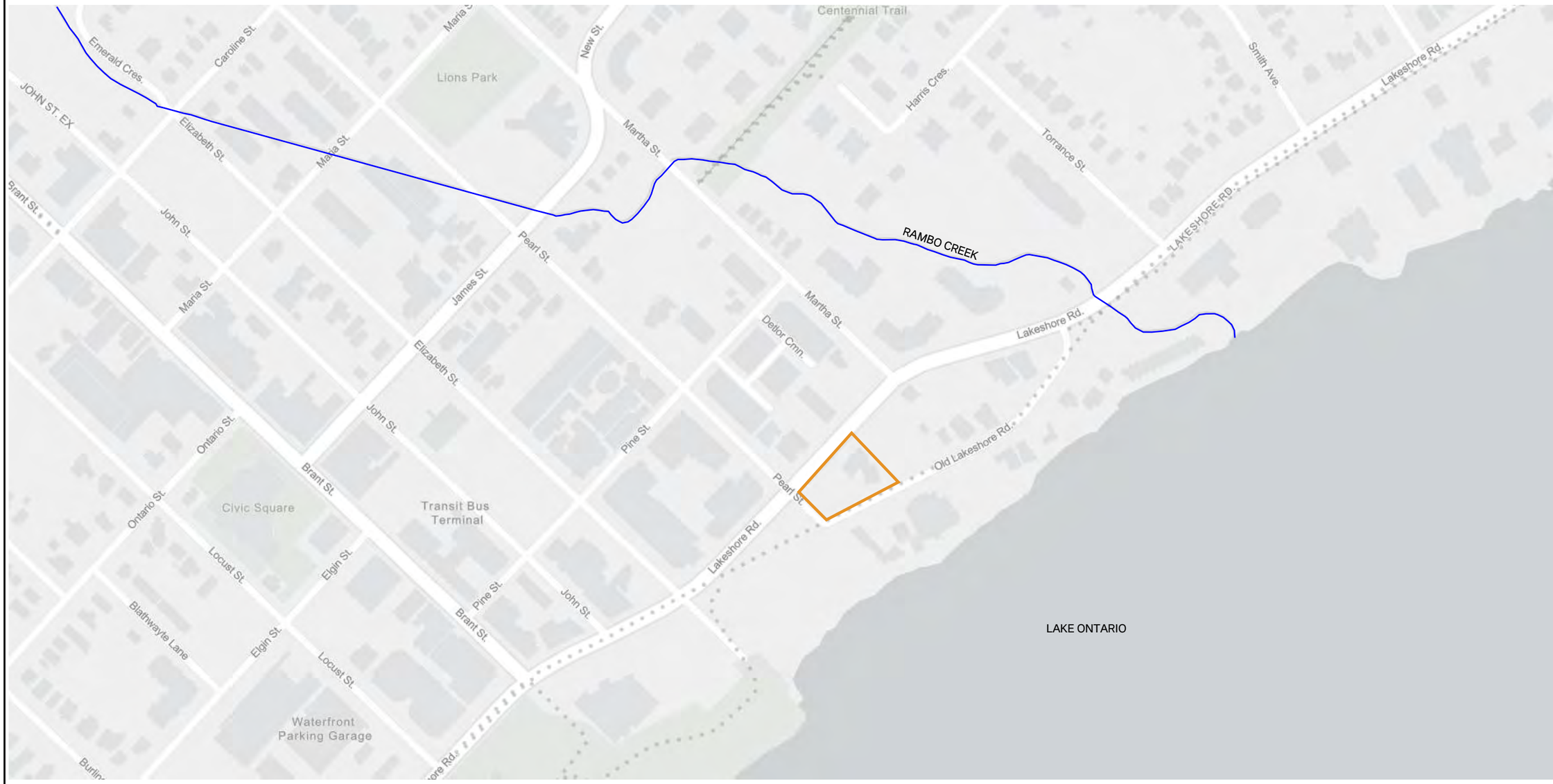
If new information regarding the environmental condition of the Phase Two Property is identified during future work, or outstanding responses from regulatory agencies indicate outstanding issues on file with respect to the Phase Two Property, Grounded Engineering Inc. should be notified so that we may re-evaluate the findings of this assessment and provide amendments.

9.1 Report Use

The authorized users of this report are Trinity Point, for whom this report has been prepared. Grounded Engineering Inc. maintains the copyright and ownership of this document.

FIGURES





GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

PROPERTY BOUNDARY

Note

Reference

ArcGIS Map

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

PROPERTY LOCATION PLAN

North

N

Date

AUGUST 2024

Scale

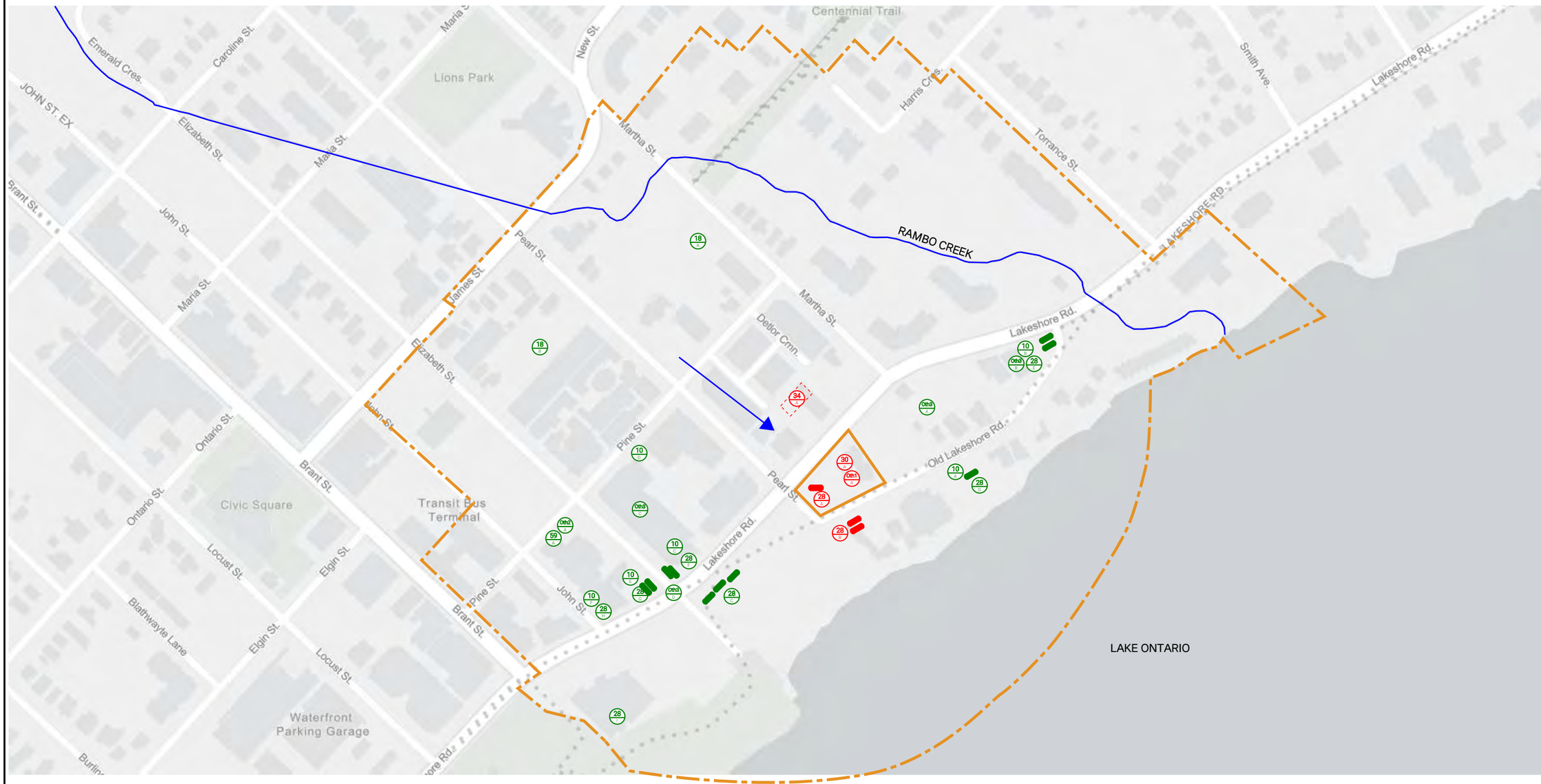
AS INDICATED

Job No

22-282

Figure No

FIGURE 1



GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- STUDY AREA (250 m RADIUS)

#10 – Commercial Autobody Shops
#18 – Electricity Generation, Transformation and Power Stations
#28 – Gasoline and Associated Products Storage in Fixed Tanks
#30 – Importation of Fill Material of Unknown Quality
#34 – Metal Fabrication
#59 – Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
#01 – De-icing Activities
#02 – Coal Storage
#03 – Ontario Spills

- GROUNDWATER FLOW DIRECTION
- PROPERTY/BUILDING OUTLINE WHERE APEC-CAUSING PCA OCCURRED
- UNDERGROUND FUEL STORAGE TANK - Historic

Note

GREEN - PCA NOT CAUSING APEC
RED - PCA CAUSING APEC

Reference

ArcGIS Map

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

PCA LOCATIONS

North

N

Date

AUGUST 2024

Scale

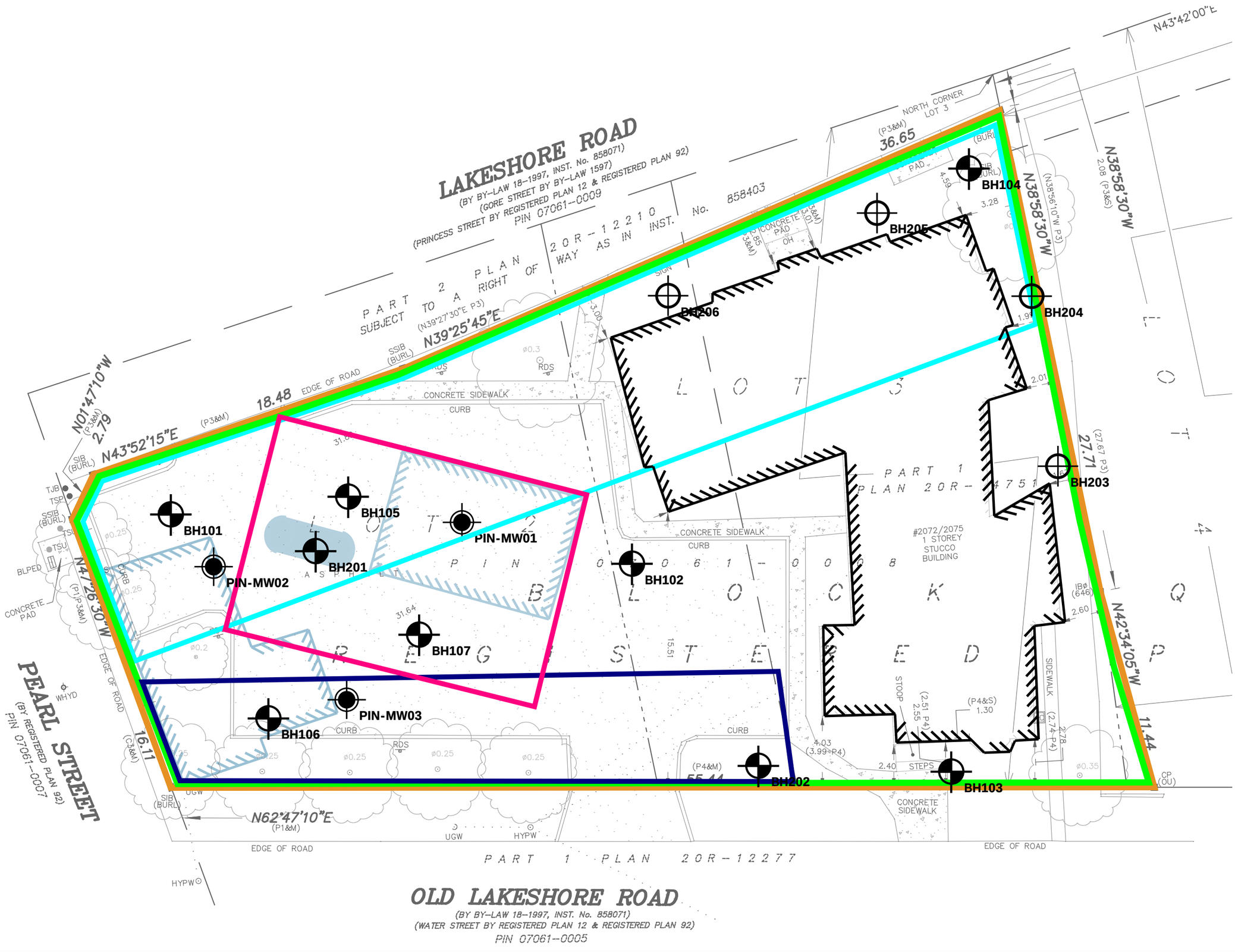
AS INDICATED

Job No

22-282

Figure No

FIGURE 2



GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- APPROXIMATE SITE BOUNDARY
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- EXISTING BUILDING STRUCTURE
- FORMER BUILDING STRUCTURE
- APEC 1
- APEC 2 & 3
- APEC 4
- APEC 5

Note

Reference

Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

APEC LOCATIONS

North

Date

AUGUST 2024

Scale

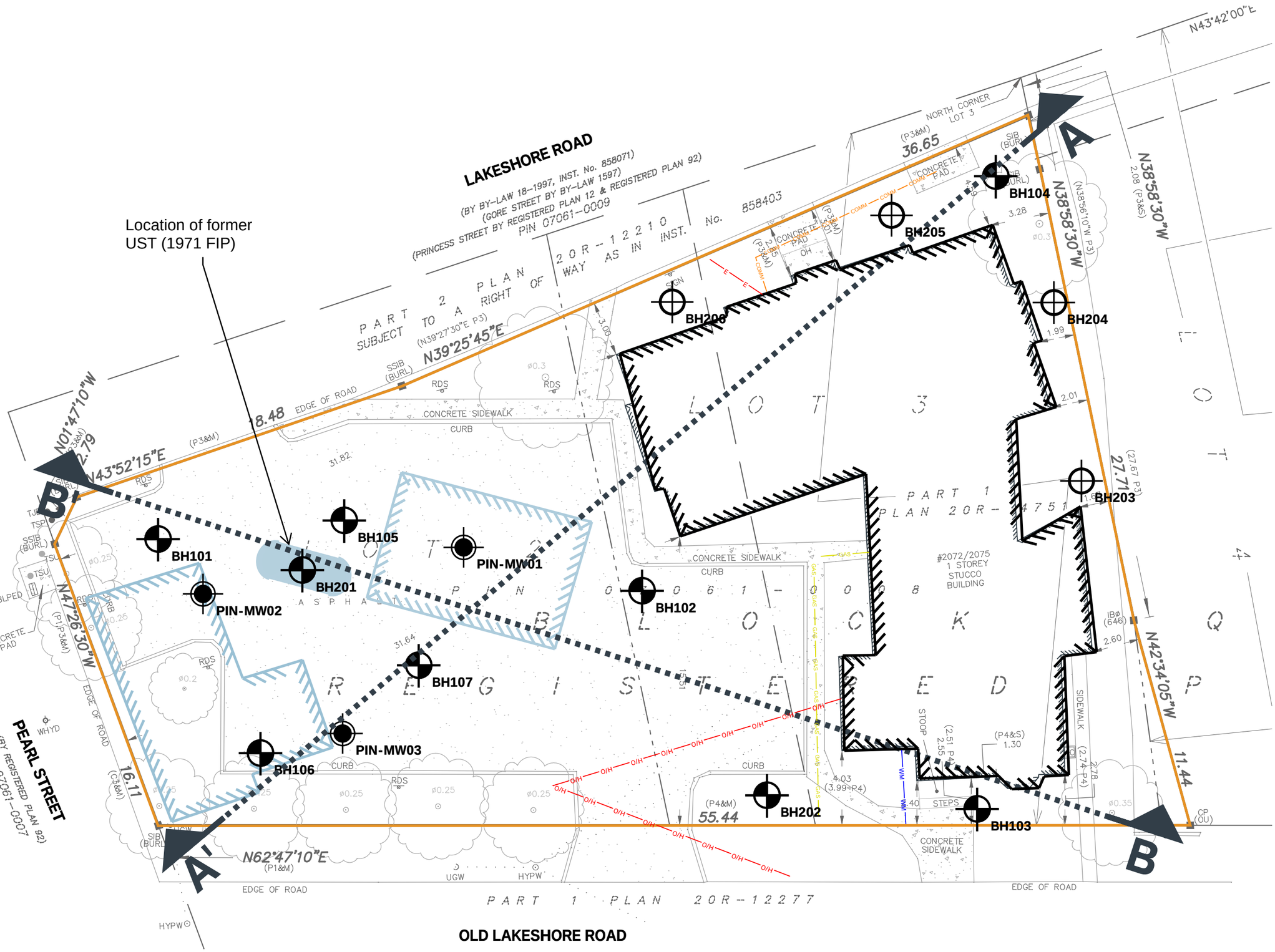
1:200

Job No

22-282

Figure No

FIGURE 3



GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- CROSS SECTION LINE
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- FORMER BUILDING STRUCTURE
- GAS — GAS
- E — ELECTRICAL
- O/H — OVERHEAD HYDRO
- WM — WATER
- COMM — COMMUNICATION

Note

Reference

Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

BOREHOLE AND MONITORING WELL LOCATIONS

North

Date

AUGUSUT 2024

Scale

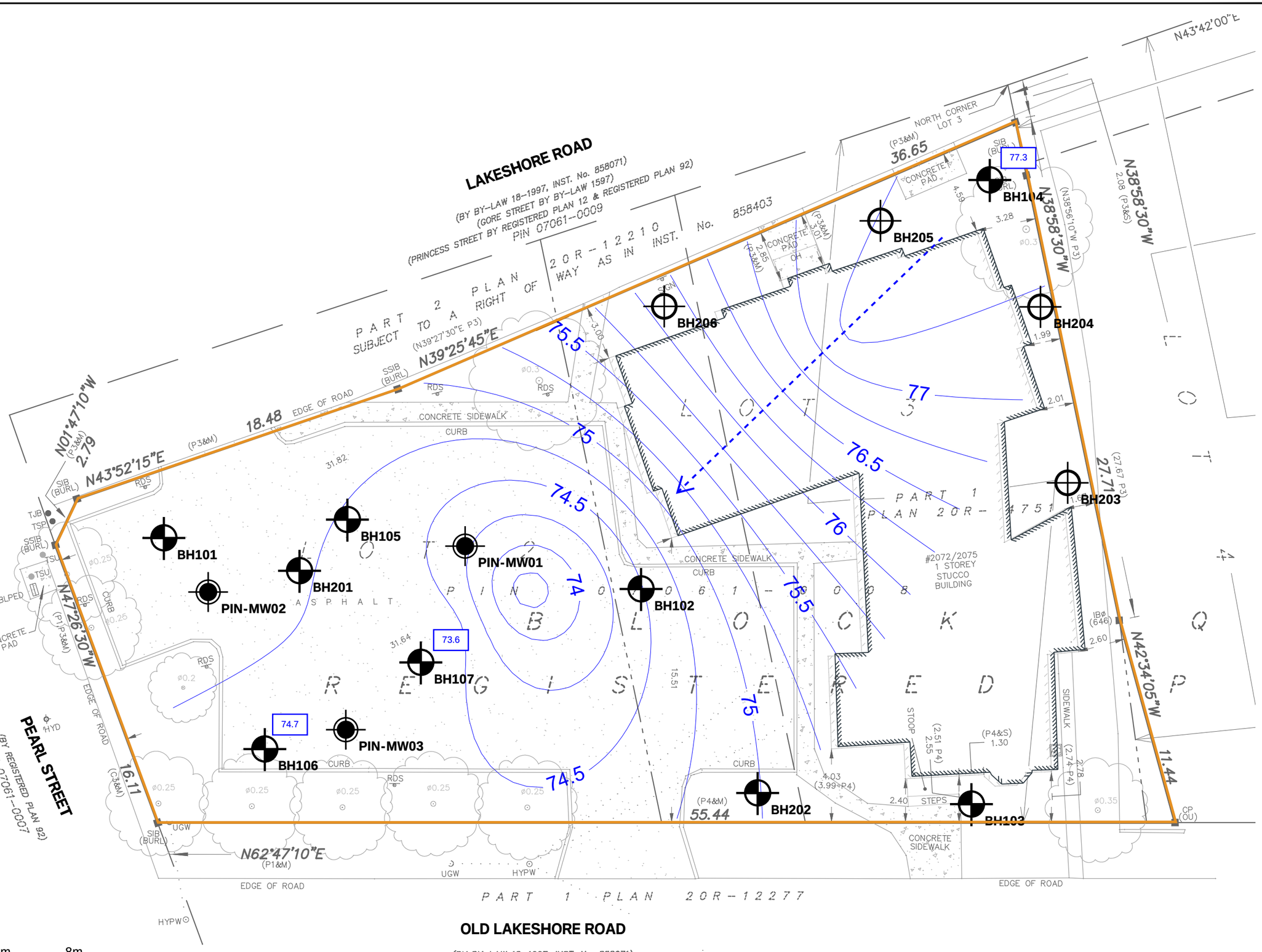
AS INDICATED

Job No

22-282

Figure No

FIGURE 4



GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- 119.4 GROUNDWATER ELEVATIONS (masl)
- —119.4— GROUNDWATER CONTOURS (masl)
- MEASURED GROUNDWATER FLOW DIRECTION

Note
Groundwater elevation data used was collected during the April 03, 2023 monitoring event.

Reference
Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project
2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title
GROUNDWATER ELEVATIONS AND CONTOURS

North

Date
AUGUST 2024

Scale
AS INDICATED

Job No
22-282

Figure No
FIGURE 4

Sample ID	BH201 DP2
Sample Depth (m)	0.8 - 1.5
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-24
Cadmium	1.1
Lead	99
Zinc	660

Sample ID	BH102 SS3A	BH102 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.3	80.1 - 79.5
Lab Job #	C369099	C369099
Sampling Date	2023-03-09	2023-03-09
Cadmium	1.3	0.1
Lead	110	14
Zinc	750	82

Sample ID	BH206 DP3
Sample Depth (m)	1.2 - 1.8
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-25
Cadmium	<0.10
Lead	3.7
Zinc	17

Sample ID	BH205 DP2
Sample Depth (m)	0.6 - 1.2
Sample Elevation (masl)	82.3 - 81.7
Lab Job #	C4J7649
Sampling Date	2024-06-25
Cadmium	<0.10
Lead	3.6
Zinc	17

Sample ID	BH104 SS1	BH104 SS4
Sample Depth (m)	0.0 - 0.6	2.3 - 2.9
Sample Elevation (masl)	82.8 - 82.2	80.5 - 79.9
Lab Job #	C367624	C367624
Sampling Date	2023-03-06	2023-03-06
Cadmium	0.3	<0.10
Lead	31	10
Zinc	97	58

Sample ID	BH101 SS3	BH101 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.1 - 80.5	80.3 - 79.7
Lab Job #	C367624	C367624
Sampling Date	2023-03-07	2023-03-07
Cadmium	1.3	1.3
Lead	120	110
Zinc	720	720

Sample ID	BH105 SS2	BH105 SS4
Sample Depth (m)	0.8 - 1.4	2.3 - 2.9
Sample Elevation (masl)	81.7 - 81.1	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-16	2023-03-16
Cadmium	1.3	0.2
Lead	120	14
Zinc	750	94

Sample ID	MW02-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	B930203
Sampling Date	2019-02-02
Cadmium	NA
Lead	130
Zinc	NA

Sample ID	BH106 SS3	BH106 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.0 - 80.3	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Cadmium	1.2	<0.10
Lead	110	13
Zinc	700	76

Sample ID	MW03-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.5
Lab Job #	B930203
Sampling Date	2019-02-02
Cadmium	NA
Lead	120
Zinc	NA

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Cadmium	1.3	0.3
Lead	110	24
Zinc	710	130

Sample ID	BH202 DP2
Sample Depth (m)	0.8 - 1.5
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-24
Cadmium	<0.10
Lead	24
Zinc	27

Sample ID	BH103 SS3A	BH103 SS4
Sample Depth (m)	1.5 - 2.0	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.4	80.1 - 79.4
Lab Job #	C376739	C376739
Sampling Date	2023-03-15	2023-03-15
Cadmium	<0.10	<0.10
Lead	3.9	10
Zinc	16	64

LAKESHORE ROAD
(BY BY-LAW 18-1997, INST. No. 858071)
(GORE STREET BY BY-LAW 1597)
(WATER STREET BY REGISTERED PLAN 12 & REGISTERED PLAN 92)
PIN 07061-0005

PEARL STREET
(BY REGISTERED PLAN 92)
PIN 07061-0008

PART 1 PLAN 20R-4751

LOT 3

BH101 BH201 BH105 BH107 BH106 PIN-MW01 PIN-MW02 PIN-MW03 BH102 BH206 BH205 BH104 BH204 BH202 BH103 BH203

0m 4m 8m

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- CROSS SECTION LINE
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- SAMPLE MEETS STANDARDS
- SAMPLE EXCEEDS STANDARDS
- LOCATION NOT TESTED
- APPROXIMATE EXTENT OF CONTAMINATION

Note

Parameter	Units	O.Reg.153/04 Table 3 SCS RPI Coarse
Cadmium	µg/g	1.2
Lead	µg/g	120
Zinc	µg/g	340

Reference

Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

METALS EXCEEDANCES IN SOIL - PLAN VIEW

North

Date

AUGUST 2024

Scale

AS INDICATED

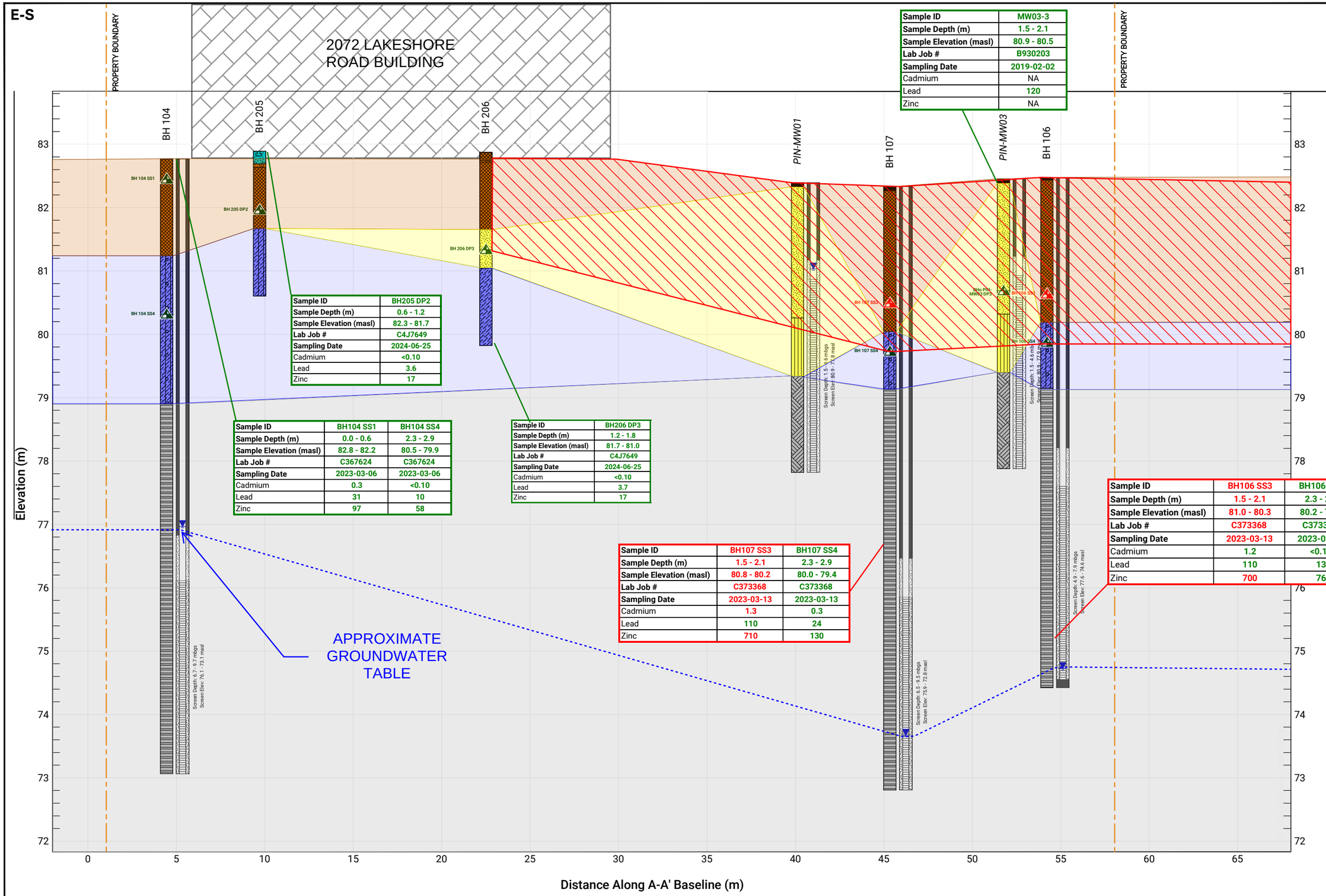
Job No

22-282

Figure No

FIGURE 6

E-S



Sample ID	BH205 DP2
Sample Depth (m)	0.6 - 1.2
Sample Elevation (masl)	82.3 - 81.7
Lab Job #	C4J7649
Sampling Date	2024-06-25
Cadmium	<0.10
Lead	3.6
Zinc	17

Sample ID	BH104 SS1	BH104 SS4
Sample Depth (m)	0.0 - 0.6	2.3 - 2.9
Sample Elevation (masl)	82.8 - 82.2	80.5 - 79.9
Lab Job #	C367624	C367624
Sampling Date	2023-03-06	2023-03-06
Cadmium	0.3	<0.10
Lead	31	10
Zinc	97	58

Sample ID	BH206 DP3
Sample Depth (m)	1.2 - 1.8
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-25
Cadmium	<0.10
Lead	3.7
Zinc	17

Sample ID	MW03-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.5
Lab Job #	B930203
Sampling Date	2019-02-02
Cadmium	NA
Lead	120
Zinc	NA

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Cadmium	1.3	0.3
Lead	110	24
Zinc	710	130

Sample ID	BH106 SS3	BH106 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.0 - 80.3	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Cadmium	1.2	<0.10
Lead	110	13
Zinc	700	76

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

l/rock stratigraphy shown on the cross between borehole locations is interpreted. ual soil/rock conditions may vary.

ence

Parameter	Units	MECP Table 3 2011 Criteria RPI CT	RDL
	µg/g	1.2	0.02
	µg/g	120	0.1
	µg/g	340	0.7

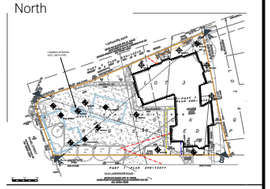
ct

2072 LAKESHORE ROAD
BURLINGTON, ONTARIO

Figure Title

METALS ECXEEDANCES IN SOIL - SECTION A-A'

North



Date

AUGUST 2023

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 7

S-N

2072 LAKESHORE ROAD BUILDING

PROPERTY BOUNDARY

PROPERTY BOUNDARY

BH 103 | BH 202 | BH 102 | BH 107 | PIN-MW01 | BH 105 | BH 201 | PIN-MW02 | BH 101

APPROXIMATE GROUNDWATER TABLE

Sample ID	BH105 SS2	BH105 SS4
Sample Depth (m)	0.8 - 1.4	2.3 - 2.9
Sample Elevation (masl)	81.7 - 81.1	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-16	2023-03-16
Cadmium	1.3	0.2
Lead	120	14
Zinc	750	94

Sample ID	BH201 DP2
Sample Depth (m)	0.8 - 1.5
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-24
Cadmium	1.1
Lead	99
Zinc	660

Sample ID	BH101 SS3	BH101 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.1 - 80.5	80.3 - 79.7
Lab Job #	C367624	C367624
Sampling Date	2023-03-07	2023-03-07
Cadmium	1.3	1.3
Lead	120	110
Zinc	720	720

Sample ID	BH202 DP2
Sample Depth (m)	0.8 - 1.5
Sample Elevation (masl)	81.7 - 81.0
Lab Job #	C4J7649
Sampling Date	2024-06-24
Cadmium	<0.10
Lead	24
Zinc	27

Sample ID	MW02-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	B930203
Sampling Date	2019-02-02
Cadmium	NA
Lead	130
Zinc	NA

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Cadmium	1.3	0.3
Lead	110	24
Zinc	710	130

Sample ID	BH103 SS3A	BH103 SS4
Sample Depth (m)	1.5 - 2.0	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.4	80.1 - 79.4
Lab Job #	C376739	C376739
Sampling Date	2023-03-15	2023-03-15
Cadmium	<0.10	<0.10
Lead	3.9	10
Zinc	16	64

Sample ID	BH102 SS3A	BH102 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.3	80.1 - 79.5
Lab Job #	C369099	C369099
Sampling Date	2023-03-09	2023-03-09
Cadmium	1.3	0.1
Lead	110	14
Zinc	750	82

Elevation (m)

Distance Along B-B' Baseline (m)

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

The soil/rock stratigraphy shown on the cross section between borehole locations is interpreted. The actual soil/rock conditions may vary.

Reference

Parameter	Units	MECP Table 3 2011 Criteria RPI CT	RDL
Cadmium	µg/g	1.2	0.02
Lead	µg/g	120	0.1
Zinc	µg/g	340	0.7

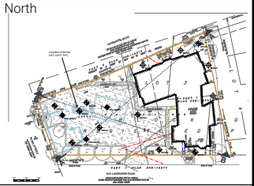
Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

METALS ECXEEDANCES IN SOIL - SECTION B-B'

North



Date

AUGUST 2023

Scale

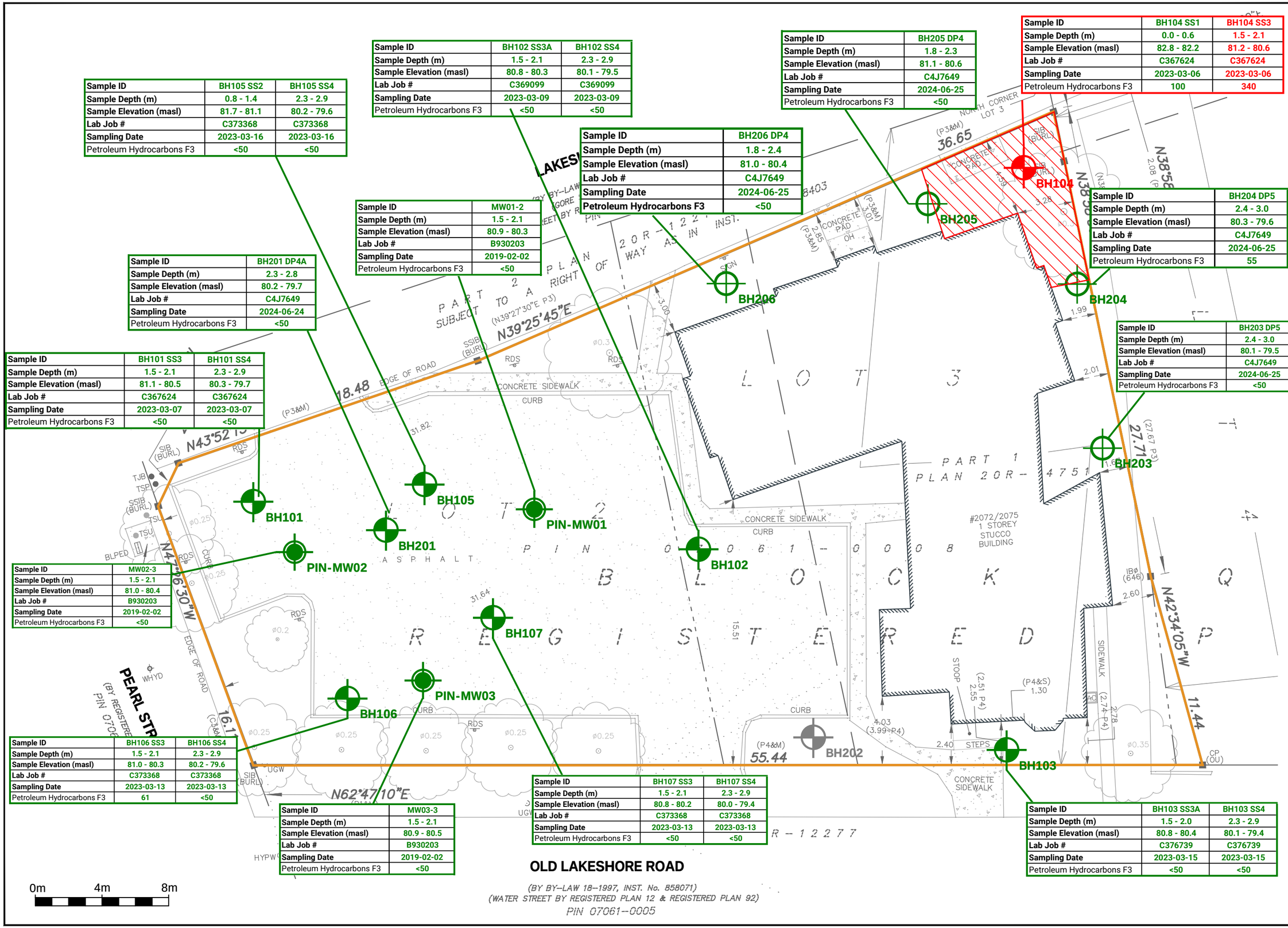
AS INDICATED

Job No

22-282

Figure No

FIGURE 8



Sample ID	BH105 SS2	BH105 SS4
Sample Depth (m)	0.8 - 1.4	2.3 - 2.9
Sample Elevation (masl)	81.7 - 81.1	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-16	2023-03-16
Petroleum Hydrocarbons F3	<50	<50

Sample ID	BH102 SS3A	BH102 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.3	80.1 - 79.5
Lab Job #	C369099	C369099
Sampling Date	2023-03-09	2023-03-09
Petroleum Hydrocarbons F3	<50	<50

Sample ID	BH205 DP4
Sample Depth (m)	1.8 - 2.3
Sample Elevation (masl)	81.1 - 80.6
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	<50

Sample ID	BH104 SS1	BH104 SS3
Sample Depth (m)	0.0 - 0.6	1.5 - 2.1
Sample Elevation (masl)	82.8 - 82.2	81.2 - 80.6
Lab Job #	C367624	C367624
Sampling Date	2023-03-06	2023-03-06
Petroleum Hydrocarbons F3	100	340

Sample ID	BH206 DP4
Sample Depth (m)	1.8 - 2.4
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	<50

Sample ID	MW01-2
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.3
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH204 DP5
Sample Depth (m)	2.4 - 3.0
Sample Elevation (masl)	80.3 - 79.6
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	55

Sample ID	BH201 DP4A
Sample Depth (m)	2.3 - 2.8
Sample Elevation (masl)	80.2 - 79.7
Lab Job #	C4J7649
Sampling Date	2024-06-24
Petroleum Hydrocarbons F3	<50

Sample ID	BH203 DP5
Sample Depth (m)	2.4 - 3.0
Sample Elevation (masl)	80.1 - 79.5
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	<50

Sample ID	BH101 SS3	BH101 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.1 - 80.5	80.3 - 79.7
Lab Job #	C367624	C367624
Sampling Date	2023-03-07	2023-03-07
Petroleum Hydrocarbons F3	<50	<50

Sample ID	MW02-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH106 SS3	BH106 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.0 - 80.3	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Petroleum Hydrocarbons F3	61	<50

Sample ID	MW03-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.5
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Petroleum Hydrocarbons F3	<50	<50

Sample ID	BH103 SS3A	BH103 SS4
Sample Depth (m)	1.5 - 2.0	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.4	80.1 - 79.4
Lab Job #	C376739	C376739
Sampling Date	2023-03-15	2023-03-15
Petroleum Hydrocarbons F3	<50	<50

0m 4m 8m

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- CROSS SECTION LINE
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- SAMPLE MEETS STANDARDS
- SAMPLE EXCEEDS STANDARDS
- LOCATION NOT TESTED
- APPROXIMATE EXTENT OF CONTAMINATION

Note

Parameter	Units	O.Reg.153/04 Table 3 SCS RPI Coarse
Petroleum Hydrocarbons F3	µg/g	300

Reference

Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

PETROLEUM HYDROCARBONS EXCEEDANCES IN SOIL - PLAN VIEW

North

Date

AUGUST 2024

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 9

E-S

PROPERTY BOUNDARY

2072 LAKESHORE ROAD BUILDING

PROPERTY BOUNDARY

BH 104

BH 205

BH 206

PIN-MW01

BH 107

PIN-MW03

BH 106

Sample ID	MW01-2
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.3
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	MW03-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.5
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH106 SS3	BH106 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.0 - 80.3	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Petroleum Hydrocarbons F3	61	<50

Sample ID	BH206 DP4
Sample Depth (m)	1.8 - 2.4
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	<50

Sample ID	BH205 DP4
Sample Depth (m)	1.8 - 2.3
Sample Elevation (masl)	81.1 - 80.6
Lab Job #	C4J7649
Sampling Date	2024-06-25
Petroleum Hydrocarbons F3	<50

Sample ID	BH104 SS1	BH104 SS3
Sample Depth (m)	0.0 - 0.6	1.5 - 2.1
Sample Elevation (masl)	82.8 - 82.2	81.2 - 80.6
Lab Job #	C367624	C367624
Sampling Date	2023-03-06	2023-03-06
Petroleum Hydrocarbons F3	100	340

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Petroleum Hydrocarbons F3	<50	<50

BH 104 SS1

BH 104 SS3

BH 205 DP4

BH 206 DP4

RHo PIN-MW01 DP2

BH 107 SS3

BH 107 SS4

BHo PIN-MW03 DP3

BH 106 SS3

BH 106 SS4

Screen Depth: 6.7 - 9.7 mbgs
Screen Elev.: 76.1 - 73.1 masl

Screen Depth: 1.5 - 4.6 mbgs
Screen Elev.: 80.9 - 77.8 masl

Screen Depth: 1.5 - 4.6 mbgs
Screen Elev.: 80.8 - 77.7 masl

Screen Depth: 4.9 - 7.9 mbgs
Screen Elev.: 77.6 - 74.6 masl

Screen Depth: 6.5 - 9.5 mbgs
Screen Elev.: 75.9 - 72.8 masl

APPROXIMATE GROUNDWATER TABLE

Elevation (m)

83 82 81 80 79 78 77 76 75 74 73 72

0 5 10 15 20 25 30 35 40 45 50 55 60 65

Distance Along A-A' Baseline (m)

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

The soil/rock stratigraphy shown on the cross section between borehole locations is interpreted. The actual soil/rock conditions may vary.

Reference

Parameter	Units	MECP Table 3 2011 Criteria RPI CT	RDL
Petroleum Hydrocarbons F3	µg/g	300	0.05

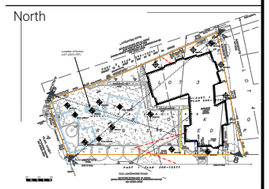
Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

PETROLEUM HYDROCARBONS ECXEEDANCES IN SOIL - SECTION A-A'

North



Date

AUGUST 2023

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 10

S-N

2072 LAKESHORE ROAD BUILDING

PROPERTY BOUNDARY

BH 103 BH 202 BH 102 BH 107 PIN-MW01 BH 105 BH 201 PIN-MW02 BH 101

Sample ID	BH201 DP4A
Sample Depth (m)	2.3 - 2.8
Sample Elevation (masl)	80.2 - 79.7
Lab Job #	C4J7649
Sampling Date	2024-06-24
Petroleum Hydrocarbons F3	<50

Sample ID	BH101 SS3	BH101 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	81.1 - 80.5	80.3 - 79.7
Lab Job #	C367624	C367624
Sampling Date	2023-03-07	2023-03-07
Petroleum Hydrocarbons F3	<50	<50

Sample ID	MW02-3
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	81.0 - 80.4
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH107 SS3	BH107 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.2	80.0 - 79.4
Lab Job #	C373368	C373368
Sampling Date	2023-03-13	2023-03-13
Petroleum Hydrocarbons F3	<50	<50

APPROXIMATE GROUNDWATER TABLE

Sample ID	BH103 SS3A	BH103 SS4
Sample Depth (m)	1.5 - 2.0	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.4	80.1 - 79.4
Lab Job #	C376739	C376739
Sampling Date	2023-03-15	2023-03-15
Petroleum Hydrocarbons F3	<50	<50

Sample ID	MW01-2
Sample Depth (m)	1.5 - 2.1
Sample Elevation (masl)	80.9 - 80.3
Lab Job #	B930203
Sampling Date	2019-02-02
Petroleum Hydrocarbons F3	<50

Sample ID	BH102 SS3A	BH102 SS4
Sample Depth (m)	1.5 - 2.1	2.3 - 2.9
Sample Elevation (masl)	80.8 - 80.3	80.1 - 79.5
Lab Job #	C369099	C369099
Sampling Date	2023-03-09	2023-03-09
Petroleum Hydrocarbons F3	<50	<50

Sample ID	BH105 SS2	BH105 SS4
Sample Depth (m)	0.8 - 1.4	2.3 - 2.9
Sample Elevation (masl)	81.7 - 81.1	80.2 - 79.6
Lab Job #	C373368	C373368
Sampling Date	2023-03-16	2023-03-16
Petroleum Hydrocarbons F3	<50	<50

Elevation (m)

Distance Along B-B' Baseline (m)

GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

The soil/rock stratigraphy shown on the cross section between borehole locations is interpreted. The actual soil/rock conditions may vary.

Reference

Parameter	Units	MECP Table 3 2011 Criteria RPI CT	RDL
Petroleum Hydrocarbons F3	µg/g	300	0.05

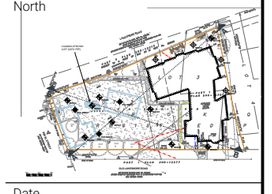
Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

PETROLEUM HYDROCARBONS ECXEEDANCES IN SOIL - SECTION B-B"

North



Date

AUGUST 2023

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 11

MW01 (Screen depth 1.5 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
04-Feb-19	PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI
03-Jul-24	M, H-M, ORPs,PAHs, PHCs, BTEX	< 2011 Table 3 SCS RPI

BH104 (Screen depth 6.7 - 9.7 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

MW02 (Screen depth: 1.6 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	Lead, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

MW03 (Screen depth 1.5 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	Lead, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI
03-Jul-24	M, H-M, ORPs,PAHs, PHCs, BTEX	< 2011 Table 3 SCS RPI

BH106 (Screen depth 4.9 - 7.9 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

BH202 (Screen depth 7.0 - 10.1 m)		
Date	**Parameters Analyzed**	**Result**
02-Jul-24	M, H-M, ORPs, PAHs, PHCs, BTEX	< 2011 Table 3 SCS RPI

BH107 (Screen depth 6.5 - 9.5 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

LAKESHORE ROAD
(BY BY-LAW 18-1997, INST. No. 858071)
(GORE STREET BY BY-LAW 1597)
(PRINCESS STREET BY REGISTERED PLAN 12 & REGISTERED PLAN 92)
PIN 07061-0009

OLD LAKESHORE ROAD
(BY BY-LAW 18-1997, INST. No. 858071)
(WATER STREET BY REGISTERED PLAN 12 & REGISTERED PLAN 92)
PIN 07061-0005

PEARL STREET
(BY REGISTERED PLAN 92)
PIN 07061-0007

PART TO 2 PLAN 20R-12210 RIGHT OF WAY AS IN INST. No. 858403

PART 1 PLAN 20R-4751

PART 1 PLAN 20R-12277

LOT 2 · LOT 3 · LOT 4

BLOCK Q

REGISTERED PLAN

PIN 07061-0008

BH101 · BH102 · BH103 · BH104 · BH105 · BH106 · BH107 · BH202
PIN-MW01 · PIN-MW02 · PIN-MW03

N43°42'00"E
N38°58'30"W
N43°32'15"E
N01°47'10"W
N47°26'30"W
N39°25'45"E
N62°47'10"E
N42°34'05"W

0m 4m 8m

GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND
- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- CROSS SECTION LINE
- MONITORING WELL/BOREHOLE BY GROUNDED
- MONITORING WELL/BOREHOLE BY OTHERS
- SAMPLE MEETS STANDARDS
- LOCATION NOT TESTED

Note

Reference
Topographic Survey, "Plan of Survey of Part of Lots 2, 3 and 4, Registered Plan 92, City of Burlington"; Project No. 19-002, dated February 15, 2019, prepared by Mackay Mackay and Peters Limited.

Project
2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title
SUMMARY OF ANALYSIS IN GROUNDWATER - PLAN VIEW

North

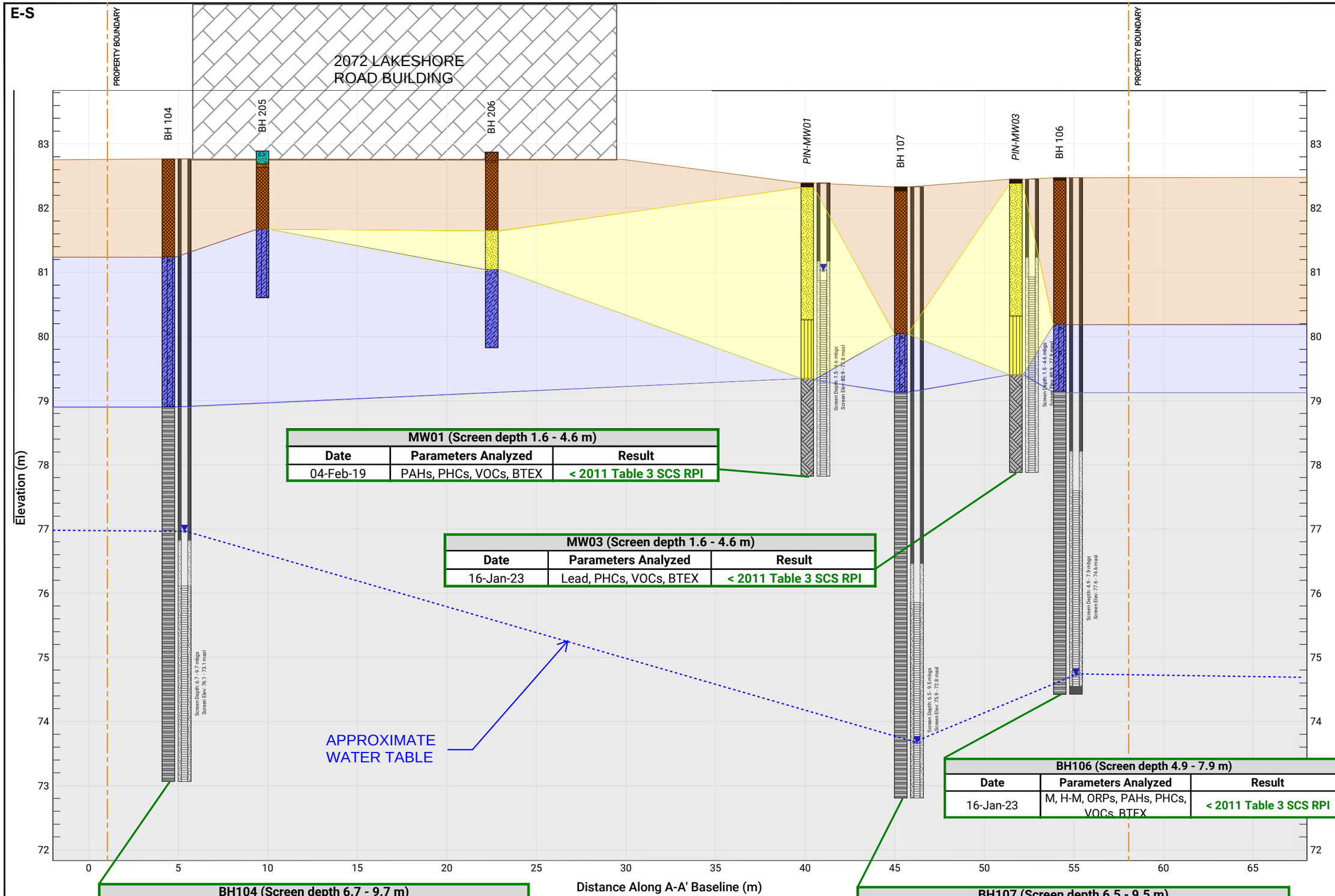
Date
AUGUST 2024

Scale
AS INDICATED

Job No
22-282

Figure No
FIGURE 12

E-S



MW01 (Screen depth 1.6 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
04-Feb-19	PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

MW03 (Screen depth 1.6 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	Lead, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

BH106 (Screen depth 4.9 - 7.9 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

BH104 (Screen depth 6.7 - 9.7 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

BH107 (Screen depth 6.5 - 9.5 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

The soil/rock stratigraphy shown on the cross section between borehole locations is interpreted. The actual soil/rock conditions may vary.

Reference

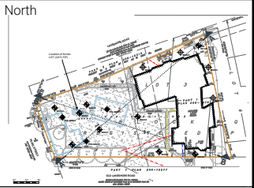
Project

2072 LAKESHORE ROAD
BURLINGTON, ONTARIO

Figure Title

SUMMARY OF ANALYSIS IN GROUNDWATER - SECTION A-A'

North



Date

MAY 2023

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 13

S-N

PROPERTY BOUNDARY

2072 LAKESHORE ROAD BUILDING

PROPERTY BOUNDARY

MW01 (Screen depth 1.6 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
04-Feb-19	PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

BH 103 BH 202 BH 102 BH 107 PIN-MW01 BH 105 BH 201 PIN-MW02 BH 101

Screen Depth: 7.0 - 10.1 mbgs
Screen Elev.: 73.5 - 72.4 masl

Screen Depth: 24.7 - 27.7 mbgs
Screen Elev.: 57.7 - 54.6 masl

Screen Depth: 4.6 - 7.6 mbgs
Screen Elev.: 77.8 - 74.7 masl

Screen Depth: 6.5 - 9.5 mbgs
Screen Elev.: 75.9 - 72.8 masl

Screen Depth: 1.5 - 4.6 mbgs
Screen Elev.: 80.9 - 77.8 masl

Screen Depth: 4.9 - 7.9 mbgs
Screen Elev.: 77.6 - 74.5 masl

Screen Depth: 6.9 - 9.9 mbgs
Screen Elev.: 75.6 - 72.6 masl

Screen Depth: 1.5 - 4.6 mbgs
Screen Elev.: 81.0 - 78.0 masl

Screen Depth: 24.5 - 27.6 mbgs
Screen Elev.: 58.1 - 55.0 masl

APPROXIMATE GROUNDWATER TABLE

BH202 (Screen depth 7.0 - 10.1 m)		
Date	**Parameters Analyzed**	**Result**
02-Jul-24	M, H-M, ORPs, PAHs, PHCs, BTEX	< 2011 Table 3 SCS RPI

BH107 (Screen depth 6.5 - 9.5 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	M, H-M, ORPs, PAHs, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

MW02 (Screen depth: 1.6 - 4.6 m)		
Date	**Parameters Analyzed**	**Result**
16-Jan-23	Lead, PHCs, VOCs, BTEX	< 2011 Table 3 SCS RPI

Elevation (m)

84 82 80 78 76 74 72 70 68 66 64 62 60 58 56 54

0 10 20 30 40 50 60 70

Distance Along B-B' Baseline (m)

GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- FILL
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED/ORGANIC
- Bedrock (cored)
- SS1 SOIL SAMPLE LOCATION MEETS STANDARD
- SS1 SOIL SAMPLE LOCATION EXCEEDS STANDARD
- APPROXIMATE EXTENT OF CONTAMINATION
- water level, stabilized

Note

The soil/rock stratigraphy shown on the cross section between borehole locations is interpreted. The actual soil/rock conditions may vary.

Reference

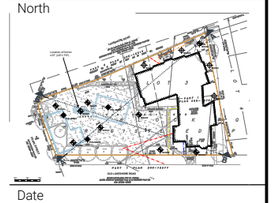
Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO

Figure Title

SUMMARY OF ANALYSIS IN GROUNDWATER - SECTION B-B"

North



Date

MAY 2023

Scale

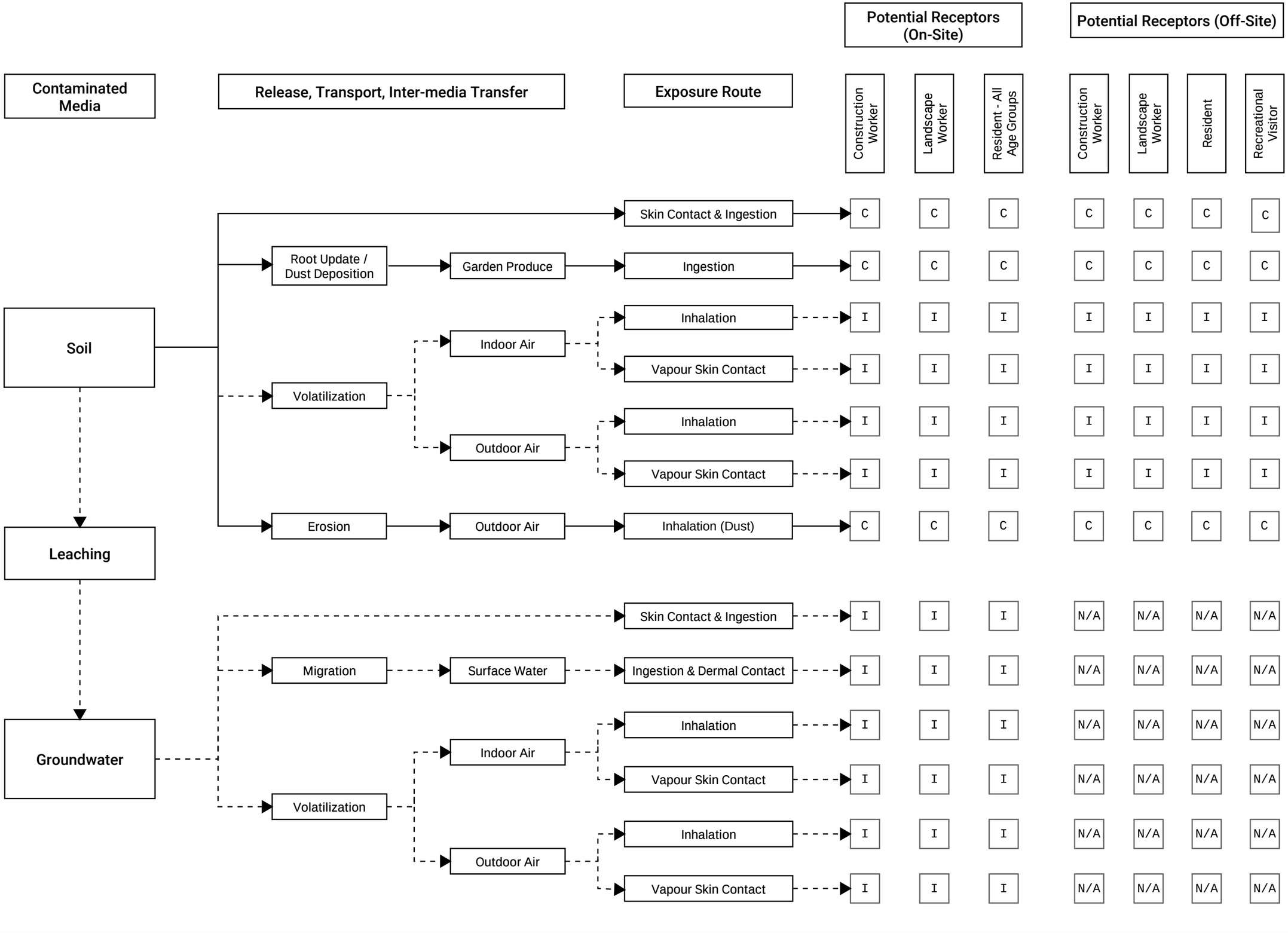
AS INDICATED

Job No

22-282

Figure No

FIGURE 14



GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- C — Pathway Complete
- I — Pathway Incomplete
- X — Pathway Blocked
- N/A — Pathway Not Applicable for Receptor
- Pathway Completed
- Pathway Incompleted

Note

1. Constructions Workers are considered protective of Utility Workers
2. Landscape Workers are considered protective of Trespassers
3. Residents are considered protective of Long Term Workers, Short Term Works and Site Visitors

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO, L7R 1E3

Figure Title

HUMAN HEALTH CSM

Reference

Date

AUGUST 2024

Scale

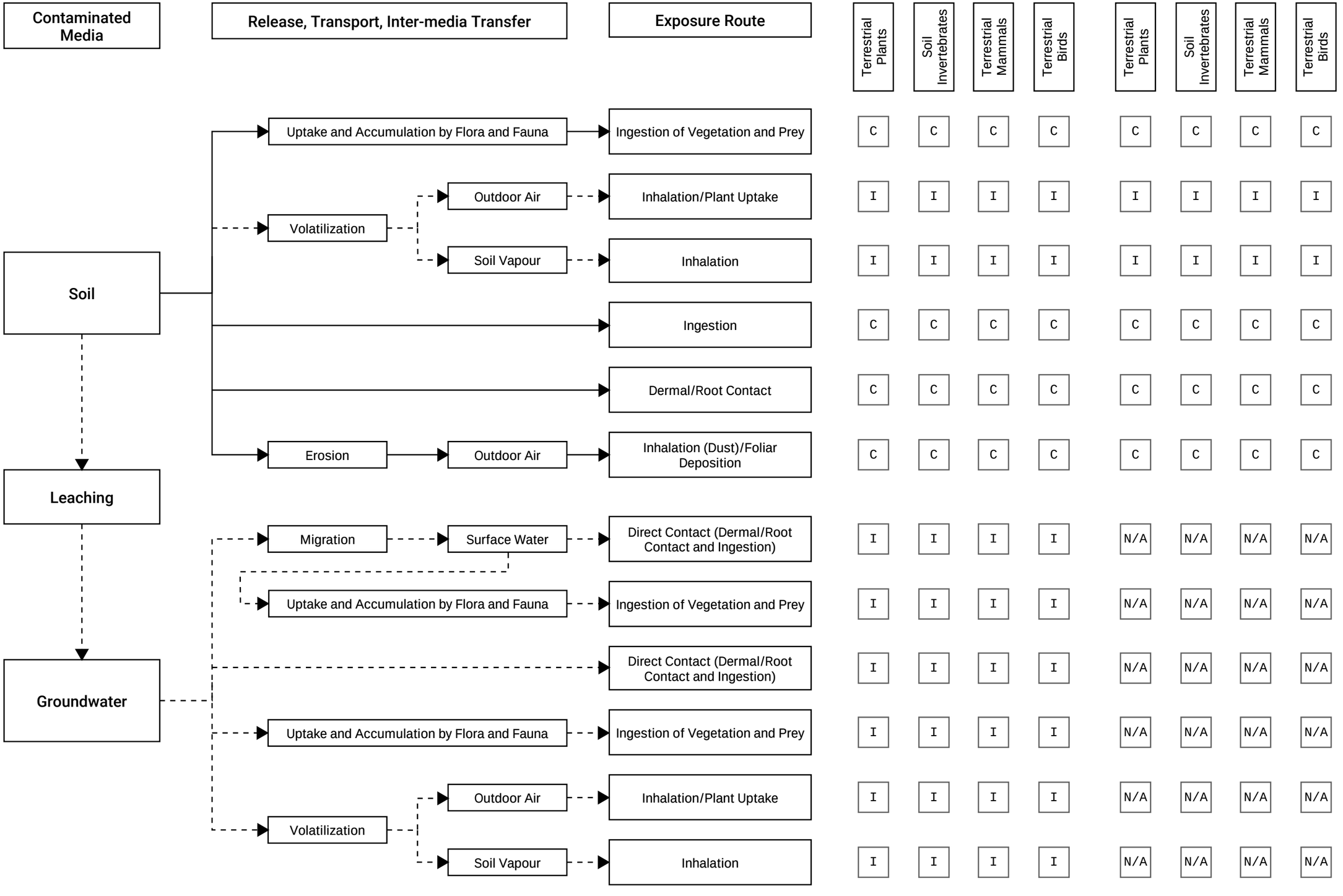
N/A

Job No

19-043

Figure No

FIGURE 15



GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- C — Pathway Complete
- I — Pathway Incomplete
- X — Pathway Blocked
- N/A — Pathway Not Applicable for Receptor
- → Pathway Completed
- - -→ Pathway Incompleted

Note

1. Constructions Workers are considered protective of Utility Workers
2. Landscape Workers are considered protective of Trespassers
3. Residents are considered protective of Long Term Workers, Short Term Works and Site Visitors

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO, L7R 1E3

Figure Title

ECOLOGICAL CSM

Reference

Date

AUGUST 2024

Scale

N/A

Job No

22-282

Figure No

FIGURE 16

TABLES



TABLE 1
GROUNDWATER LEVEL MONITORING SUMMARY
2072 LAKESHORE ROAD
BURLINGTON, ON
22-282

Well ID	Ground Surface Elevation (masl)	Screen Interval (mbgs)	Screen Interval (masl)	Soil Strata	Pinchin				Grounded Engineering							
					February 4, 2019		February 7, 2019		March 20, 2023		April 3, 2023		May 5, 2023		July 3, 2024	
					(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)
BH101	82.6	24.5 - 27.6	58.1 - 55.0	Shale	NA	NA	NA	NA	10.2	72.4	9.9	72.7	NA	NA	NA	NA
BH102	82.4	4.6 - 7.6	77.8 - 74.7	Shale	NA	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA
BH103	82.3	24.7 - 27.7	57.7 - 54.6	Shale	NA	NA	NA	NA	9.3	73.0	9.0	73.3	9.0	73.3	NA	NA
BH104	82.8	6.7 - 9.7	76.1 - 73.1	Shale	NA	NA	NA	NA	5.4	77.4	5.5	77.3	5.7	77.1	NA	NA
BH105	82.5	4.9 - 7.9	77.6 - 74.5	Shale	NA	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA	NA
BH106	82.5	4.9 - 7.9	77.6 - 74.6	Shale	NA	NA	NA	NA	7.8	74.7	7.8	74.7	7.8	74.7	NA	NA
BH107	82.3	6.5 - 9.5	75.9 - 72.8	Shale	NA	NA	NA	NA	8.9	73.4	8.7	73.6	8.6	73.7	NA	NA
BH201	82.5	6.8 - 9.9	75.7 - 72.6	Shale	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Dry	-
BH202	82.5	7.0 - 10.0	75.5 - 72.5	Shale	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9.0	73.5
PIN-MW01	82.4	1.5 - 4.6	80.9 - 77.8	Sand/Silt Till	1.5	80.9	1.4	81.0	NA	NA	NA	NA	NA	NA	1.5	80.9
PIN-MW02	82.5	1.5 - 4.6	81.0 - 78.0	Sand/Silt Till	2.2	80.3	2.2	80.3	NA	NA	NA	NA	NA	NA	NA	NA
PIN-MW03	82.5	1.5 - 4.6	80.9 - 77.9	Sand/Silt Till	1.4	81.1	1.4	81.1	1.1	81.4	1.2	81.3	1.4	81.1	1.7	80.8

mbgs = metres below existing ground surface
masl = metres above sea level
* = unstabilized groundwater level
NA = not available: unable to access monitoring well

TABLE 1
GROUNDWATER LEVEL MONITORING SUMMARY
2072 LAKESHORE ROAD
BURLINGTON, ON
22-282

Well ID	Ground Surface Elevation (masl)	Screen Interval (mbgs)	Screen Interval (masl)	Soil Strata	July 11, 2024		July 24, 2024		December 10, 2024		Minimum Elev. (Lowest)		Maximum Elev. (Highest)		Seasonal Fluctuation
					(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(mbgs)	(masl)	(±m)
BH101	82.6	24.5 - 27.6	58.1 - 55.0	Shale	NA	NA	NA	NA	17.2	65.4	10.2	72.4	9.9	72.7	NA
BH102	82.4	4.6 - 7.6	77.8 - 74.7	Shale	NA	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA
BH103	82.3	24.7 - 27.7	57.7 - 54.6	Shale	16.4	65.9	NA	NA	17.7	64.6	16.4	65.9	9.0	73.3	NA
BH104	82.8	6.7 - 9.7	76.1 - 73.1	Shale	NA	NA	NA	NA	7.2	75.6	5.7	77.1	5.4	77.4	NA
BH105	82.5	4.9 - 7.9	77.6 - 74.5	Shale	NA	NA	NA	NA	Dry	Dry	Dry	Dry	Dry	Dry	NA
BH106	82.5	4.9 - 7.9	77.6 - 74.6	Shale	NA	NA	NA	NA	7.8	74.7	7.8	74.7	7.8	74.7	NA
BH107	82.3	6.5 - 9.5	75.9 - 72.8	Shale	NA	NA	NA	NA	9.1	73.2	8.9	73.4	8.6	73.7	NA
BH201	82.5	6.8 - 9.9	75.7 - 72.6	Shale	Dry	-	Dry	-	9.1	73.4	0.0	0.0	0.0	0.0	NA
BH202	82.5	7.0 - 10.0	75.5 - 72.5	Shale	8.9	73.6	8.9	73.6	10.2	72.3	9.0	73.5	8.9	73.6	NA
PIN-MW01	82.4	1.5 - 4.6	80.9 - 77.8	Sand/Silt Till	NA	NA	NA	NA	1.8	80.6	1.5	80.9	1.4	81.0	0.1
PIN-MW02	82.5	1.5 - 4.6	81.0 - 78.0	Sand/Silt Till	NA	NA	NA	NA	2.2	80.3	2.2	80.3	2.2	80.3	0.0
PIN-MW03	82.5	1.5 - 4.6	80.9 - 77.9	Sand/Silt Till	NA	NA	NA	NA	2.0	80.5	1.7	80.8	1.1	81.4	0.3

mbgs = metres below existing ground surface
masl = metres above sea level
* = unstabilized groundwater level
NA = not available: unable to access monitoring well

Table 2: Summary of Soil Quality Results
Metals and Other Regulated Parameters
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	MW02-3 1.5 - 2.1 81.0 - 80.4 B930203 2019-02-02	MW03-3 1.5 - 2.0 80.9 - 80.5 B930203 2019-02-02	BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624 2023-03-07	BH101 SS4 2.3 - 2.9 80.3 - 79.7 C367624 2023-03-07	BH102 SS3A 1.5 - 2.1 80.8 - 80.3 C369099 2023-03-09	DUP023 BH102 SS3A 1.5 - 2.1 80.8 - 80.3 C369099 2023-03-09	BH102 SS4 2.3 - 2.9 80.1 - 79.5 C369099 2023-03-09	BH103 SS3A 1.5 - 2.0 80.8 - 80.4 C376739 2023-03-15	BH103 SS4 2.3 - 2.9 80.1 - 79.4 C376739 2023-03-15
Site Sensitivity (pH)													
pH (surface soil, <1.5m)	5 to 9	unitless	7-8	02 DP2/BH105									
pH (subsurface soil, >1.5m)	5 to 11	unitless	8-8	04 SS4/BH106			8	8	8	8	8	8	8
Metals													
Barium	390	µg/g	350	BH107 SS4			16	20	14	14	100	17	96
Beryllium	4	µg/g	0.71	BH105 SS4			<0.20	0.21	<0.20	0.21	0.66	<0.20	0.67
Boron (total)	120	µg/g	21	BH107 SS4			8.1	7.7	7.4	7.4	14	<5.0	13
Cadmium	1.2	µg/g	1.3	Multiple			1.3	1.3	1.3	1.3	0.13	<0.10	<0.10
Chromium (total)	160	µg/g	49	DUP041			7.6	9.2	7.8	6.9	22	6.2	23
Cobalt	22	µg/g	13	Multiple			3.7	3.9	3.1	3.2	12	3.4	13
Copper	140	µg/g	33	BH105 SS4			24	22	19	18	29	9.9	32
Lead	120	µg/g	130	MW02-3	130	120	120	120	110	110	14	3.9	10
Molybdenum	6.9	µg/g	1	Multiple			0.66	0.71	0.63	<0.50	0.68	<0.50	0.77
Nickel	100	µg/g	29	Multiple			9.3	9.6	8.8	8.5	26	6.9	29
Silver	20	µg/g	1.4	BH101 SS3			1.4	0.49	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	µg/g	0.11	Multiple			0.098	0.098	0.099	0.099	0.087	<0.050	0.11
Uranium	23	µg/g	0.92	BH104 SS4			0.49	0.5	0.45	0.46	0.6	0.28	0.66
Vanadium	86	µg/g	42	DUP041			14	15	14	13	27	13	29
Zinc	340	µg/g	750	Multiple			720	720	750	730	82	16	64
Hydride-forming Metals													
Antimony	7.5	µg/g	0.44	Multiple			<0.20	0.22	<0.20	<0.20	0.21	<0.20	0.28
Arsenic	18	µg/g	6	BH104 SS4			3.8	4.1	3.6	3.5	4.6	1.5	4.6
Selenium	2.4	µg/g	<0.5	Multiple			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ORPs - Other Regulated Parameters													
Boron (Hot Water Soluble)	1.5	µg/g	0.65	BH107 SS4			0.074	0.071	0.074	0.16	0.38	<0.050	0.37
Chromium VI	8	µg/g	<0.18	Multiple			<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Cyanide (CN-)	0.051	µg/g	<0.01	Multiple			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Electrical Conductivity (EC)	0.7	mS/cm	1.4	Multiple			0.85	1.4	0.33	0.33	0.62	0.24	0.22
Mercury	0.27	µg/g	0.076	DUP041			<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium Adsorption Ratio (SAR	5	unitless	22	BH107 SS3			17	16	5.9	6.1	3	2.2	0.49

Notes:

Blanks indicate not analysed.

'NV ' : No Standard established

Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 2: Summary of Soil Quality Results
Metals and Other Regulated Parameters
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	DUP041 BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	BH104 SS4 2.3 - 2.9 80.5 - 79.9 C367624 2023-03-06	BH105 SS2 0.8 - 1.4 81.7 - 81.1 C373368 2023-03-16	BH105 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-16	BH106 SS3 1.5 - 2.1 81.0 - 80.3 C373368 2023-03-13	BH106 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-13	BH107 SS3 1.5 - 2.1 80.8 - 80.2 C373368 2023-03-13	BH107 SS4 2.3 - 2.9 80.0 - 79.4 C373368 2023-03-13
Site Sensitivity (pH)													
pH (surface soil, <1.5m)	5 to 9	unitless	7-8	02 DP2/BH105	**8**	**8**		**8**					
pH (subsurface soil, >1.5m)	5 to 11	unitless	8-8	04 SS4/BH106			**8**		**8**	**8**	**8**	**8**	**8**
Metals													
Barium	390	µg/g	350	BH107 SS4	46	52	140	16	110	14	140	15	350
Beryllium	4	µg/g	0.71	BH105 SS4	0.34	0.35	0.64	<0.20	0.71	<0.20	0.64	<0.20	0.66
Boron (total)	120	µg/g	21	BH107 SS4	5.2	5.7	14	7.5	15	6.7	16	7.7	21
Cadmium	1.2	µg/g	1.3	Multiple	0.27	0.35	<0.10	1.3	0.15	1.2	<0.10	1.3	0.27
Chromium (total)	160	µg/g	49	DUP041	36	49	22	7.3	22	6.5	20	7.3	20
Cobalt	22	µg/g	13	Multiple	5.1	5.5	11	3.5	13	3.5	12	3.3	12
Copper	140	µg/g	33	BH105 SS4	30	27	31	19	33	18	29	20	13
Lead	120	µg/g	130	MW02-3	31	36	9.9	120	14	110	13	110	24
Molybdenum	6.9	µg/g	1	Multiple	0.96	1	0.78	0.64	0.85	0.52	0.96	0.64	1
Nickel	100	µg/g	29	Multiple	11	13	26	8.4	29	7.9	26	8.6	26
Silver	20	µg/g	1.4	BH101 SS3	0.5	0.56	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	µg/g	0.11	Multiple	0.071	0.083	0.1	0.095	0.11	0.091	0.11	0.1	0.089
Uranium	23	µg/g	0.92	BH104 SS4	0.44	0.47	0.92	0.47	0.6	0.46	0.61	0.52	0.66
Vanadium	86	µg/g	42	DUP041	32	42	31	13	28	12	26	14	25
Zinc	340	µg/g	750	Multiple	97	110	58	750	94	700	76	710	130
Hydride-forming Metals													
Antimony	7.5	µg/g	0.44	Multiple	0.44	0.44	0.28	<0.20	0.22	<0.20	<0.20	<0.20	0.23
Arsenic	18	µg/g	6	BH104 SS4	3.4	3.7	6	3.3	4	3.5	3.5	3.9	4
Selenium	2.4	µg/g	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ORPs - Other Regulated Parameters													
Boron (Hot Water Soluble)	1.5	µg/g	0.65	BH107 SS4	0.27	0.27	0.25	0.063	0.34	0.062	0.52	0.079	0.65
Chromium VI	8	µg/g	<0.18	Multiple	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Cyanide (CN-)	0.051	µg/g	<0.01	Multiple	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Electrical Conductivity (EC)	0.7	mS/cm	1.4	Multiple	0.44	0.36	0.39	0.69	0.77	0.84	1.4	1.2	1.2
Mercury	0.27	µg/g	0.076	DUP041	0.071	0.076	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium Adsorption Ratio (SAR	5	unitless	22	BH107 SS3	0.7	0.65	1.1	10	7.7	13	8.3	22	6.4

Notes:

Blanks indicate not analysed.

'NV ' : No Standard established

Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 2: Summary of Soil Quality Results
Metals and Other Regulated Parameters
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH201 DP2 0.8 - 1.5 81.7 - 81.0 C4J7649 2024-06-25	BH202 DP2 0.8 - 1.5 81.7 - 81.0 C4J7649 2024-06-25	BH205 DP2 0.6 - 1.2 82.3 - 81.7 C4J7649 2024-06-26	BH206 DP3 1.2 - 1.8 81.7 - 81.0 C4J7649 2024-06-26	DUP 263 BH206 DP3 1.2 - 1.8 81.7 - 81.0 C4J7649 2024-06-26
Site Sensitivity (pH)									
pH (surface soil, <1.5m)	5 to 9	unitless	7-8	02 DP2/BH105	**8**	**7**	**8**	**8**	**8**
pH (subsurface soil, >1.5m)	5 to 11	unitless	8-8	04 SS4/BH106					
Metals									
Barium	390	µg/g	350	BH107 SS4	12	44	18	18	16
Beryllium	4	µg/g	0.71	BH105 SS4	<0.20	0.35	0.21	<0.20	<0.20
Boron (total)	120	µg/g	21	BH107 SS4	6.2	<5.0	<5.0	<5.0	<5.0
Cadmium	1.2	µg/g	1.3	Multiple	1.1	<0.10	<0.10	<0.10	<0.10
Chromium (total)	160	µg/g	49	DUP041	6.7	11	6.6	6.3	5.9
Cobalt	22	µg/g	13	Multiple	3.2	3.2	3.4	3.6	3.6
Copper	140	µg/g	33	BH105 SS4	15	4.9	10	10	9.8
Lead	120	µg/g	130	MW02-3	99	24	3.6	3.7	3.3
Molybdenum	6.9	µg/g	1	Multiple	0.52	<0.50	0.5	<0.50	<0.50
Nickel	100	µg/g	29	Multiple	7	6.4	7.2	7.2	6.6
Silver	20	µg/g	1.4	BH101 SS3	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	1	µg/g	0.11	Multiple	0.078	<0.050	<0.050	<0.050	<0.050
Uranium	23	µg/g	0.92	BH104 SS4	0.46	0.62	0.35	0.31	0.28
Vanadium	86	µg/g	42	DUP041	14	21	13	13	12
Zinc	340	µg/g	750	Multiple	660	27	17	17	16
Hydride-forming Metals									
Antimony	7.5	µg/g	0.44	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Arsenic	18	µg/g	6	BH104 SS4	3.1	1.5	1.6	1.3	1.1
Selenium	2.4	µg/g	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
ORPs - Other Regulated Parameters									
Boron (Hot Water Soluble)	1.5	µg/g	0.65	BH107 SS4	0.063	0.18	0.12	0.05	0.052
Chromium VI	8	µg/g	<0.18	Multiple	<0.18	<0.18	<0.18	<0.18	<0.18
Cyanide (CN-)	0.051	µg/g	<0.01	Multiple	<0.01	<0.01	<0.01	<0.01	<0.01
Electrical Conductivity (EC)	0.7	mS/cm	1.4	Multiple	0.45	0.17	0.17	0.094	0.09
Mercury	0.27	µg/g	0.076	DUP041	<0.050	<0.050	<0.050	<0.050	<0.050
Sodium Adsorption Ratio (SAR	5	unitless	22	BH107 SS3	8	1.3	1.7	0.41	0.43

Notes:

Blanks indicate not analysed.

'NV ' : No Standard established

Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 3: Summary of Soil Quality Results
Acid/Base/Neutral Compounds, Polycyclic Aromatic Hydrocarbons, and Chlorophenols
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	MW01-1 0.1 - 1.5 82.3 - 80.9 B930203 2019-02-02	BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624 2023-03-07	BH101 SS4 2.3 - 2.9 80.3 - 79.7 C367624 2023-03-07	BH102 SS2 0.8 - 1.4 81.6 - 81.0 C369099 2023-03-09	DUP 022 BH102 SS2 0.8 - 1.4 81.6 - 81.0 C369099 2023-03-09	BH102 SS4 2.3 - 2.9 80.1 - 79.5 C369099 2023-03-09	BH103 SS2 0.8 - 1.4 81.6 - 81.0 C376739 2023-03-15
PAHs - Polycyclic Aromatic Hydrocarbons											
Acenaphthene	7.9	µg/g	0.016	BH106 SS3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.15	µg/g	0.0065	BH104 SS1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	0.67	µg/g	0.03	BH104 SS1	<0.0050	0.009	<0.0050	<0.0050	<0.0050	<0.0050	0.013
Benz[a]anthracene	0.5	µg/g	0.18	BH104 SS1	<0.0050	0.018	<0.0050	<0.0050	<0.0050	<0.0050	0.068
Benzo[a]pyrene	0.3	µg/g	0.19	BH104 SS1	<0.0050	0.019	<0.0050	<0.0050	<0.0050	<0.0050	0.067
Benzo[b]fluoranthene	0.78	µg/g	0.22	BH104 SS1	<0.0050	0.026	<0.0050	<0.0050	<0.0050	<0.0050	0.085
Benzo[ghi]perylene	6.6	µg/g	0.15	BH104 SS1	<0.0050	0.018	<0.0050	<0.0050	<0.0050	<0.0050	0.037
Benzo[k]fluoranthene	0.78	µg/g	0.089	BH104 SS1	<0.0050	0.0082	<0.0050	<0.0050	<0.0050	<0.0050	0.028
Chrysene	7	µg/g	0.16	BH104 SS1	<0.0050	0.018	<0.0050	<0.0050	<0.0050	<0.0050	0.071
Dibenz[a,h]anthracene	0.1	µg/g	0.028	BH104 SS1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.01
Fluoranthene	0.69	µg/g	0.41	BH104 SS1	<0.0050	0.071	0.0057	0.01	<0.0050	<0.0050	0.14
Fluorene	62	µg/g	0.013	BH104 SS1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno[1,2,3-cd]pyrene	0.38	µg/g	0.16	BH104 SS1	<0.0050	0.017	<0.0050	<0.0050	<0.0050	<0.0050	0.042
Methlynaphthalene, 2-(1-)	0.99	µg/g	<0.0071	Multiple	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Methylnaphthalene, 1-	NV	µg/g	<0.005	Multiple	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Methylnaphthalene, 2-	NV	µg/g	0.0062	BH106 SS3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	0.6	µg/g	0.0075	BH104 SS1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	6.2	µg/g	0.16	BH104 SS1	<0.0050	0.046	<0.0050	0.0055	<0.0050	<0.0050	0.053
Pyrene	78	µg/g	0.33	BH104 SS1	<0.0050	0.055	0.005	0.0077	<0.0050	<0.0050	0.12

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 3: Summary of Soil Quality Results
Acid/Base/Neutral Compounds, Polycyclic Aromatic Hydrocarbons, and Chlorophenols
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH103 SS4 2.3 - 2.9 80.1 - 79.4 C376739 2023-03-15	BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	DUP041 BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	BH104 SS3 1.5 - 2.1 81.2 - 80.6 C367624 2023-03-06	BH105 SS2 0.8 - 1.4 81.7 - 81.1 C373368 2023-03-16	BH105 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-16	BH106 SS3 1.5 - 2.1 81.0 - 80.3 C373368 2023-03-13
PAHs - Polycyclic Aromatic Hydrocarbons											
Acenaphthene	7.9	µg/g	0.016	BH106 SS3	<0.0050	0.013	0.012	<0.0050	<0.0050	<0.0050	0.016
Acenaphthylene	0.15	µg/g	0.0065	BH104 SS1	<0.0050	0.0065	0.0059	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	0.67	µg/g	0.03	BH104 SS1	<0.0050	0.03	0.025	<0.0050	<0.0050	<0.0050	0.0054
Benz[a]anthracene	0.5	µg/g	0.18	BH104 SS1	<0.0050	0.18	0.13	<0.0050	<0.0050	<0.0050	0.0068
Benzo[a]pyrene	0.3	µg/g	0.19	BH104 SS1	<0.0050	0.19	0.15	<0.0050	<0.0050	<0.0050	0.0066
Benzo[b]fluoranthene	0.78	µg/g	0.22	BH104 SS1	<0.0050	0.22	0.19	<0.0050	<0.0050	<0.0050	0.011
Benzo[ghi]perylene	6.6	µg/g	0.15	BH104 SS1	<0.0050	0.15	0.12	<0.0050	<0.0050	<0.0050	0.01
Benzo[k]fluoranthene	0.78	µg/g	0.089	BH104 SS1	<0.0050	0.089	0.063	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	7	µg/g	0.16	BH104 SS1	<0.0050	0.16	0.12	<0.0050	<0.0050	<0.0050	0.0094
Dibenz[a,h]anthracene	0.1	µg/g	0.028	BH104 SS1	<0.0050	0.028	0.022	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	µg/g	0.41	BH104 SS1	<0.0050	0.41	0.34	0.0079	<0.0050	<0.0050	0.034
Fluorene	62	µg/g	0.013	BH104 SS1	<0.0050	0.013	0.0095	<0.0050	<0.0050	<0.0050	0.0076
Indeno[1,2,3-cd]pyrene	0.38	µg/g	0.16	BH104 SS1	<0.0050	0.16	0.13	<0.0050	<0.0050	<0.0050	0.0056
Methlynaphthalene, 2-(1-)	0.99	µg/g	<0.0071	Multiple	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Methylnaphthalene, 1-	NV	µg/g	<0.005	Multiple	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Methylnaphthalene, 2-	NV	µg/g	0.0062	BH106 SS3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0062
Naphthalene	0.6	µg/g	0.0075	BH104 SS1	<0.0050	0.0075	<0.0050	<0.0050	<0.0050	<0.0050	0.0066
Phenanthrene	6.2	µg/g	0.16	BH104 SS1	<0.0050	0.16	0.14	<0.0050	<0.0050	<0.0050	0.032
Pyrene	78	µg/g	0.33	BH104 SS1	<0.0050	0.33	0.28	0.0084	<0.0050	<0.0050	0.026

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 3: Summary of Soil Quality Results
Acid/Base/Neutral Compounds, Polycyclic Aromatic Hydrocarbons, and Chlorophenols
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH106 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-13	BH107 SS3 1.5 - 2.1 80.8 - 80.2 C373368 2023-03-13	BH107 SS4 2.3 - 2.9 80.0 - 79.4 C373368 2023-03-13
PAHs - Polycyclic Aromatic Hydrocarbons							
Acenaphthene	7.9	µg/g	0.016	BH106 SS3	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.15	µg/g	0.0065	BH104 SS1	<0.0050	<0.0050	<0.0050
Anthracene	0.67	µg/g	0.03	BH104 SS1	<0.0050	<0.0050	<0.0050
Benz[a]anthracene	0.5	µg/g	0.18	BH104 SS1	<0.0050	<0.0050	<0.0050
Benzo[a]pyrene	0.3	µg/g	0.19	BH104 SS1	<0.0050	<0.0050	<0.0050
Benzo[b]fluoranthene	0.78	µg/g	0.22	BH104 SS1	<0.0050	<0.0050	<0.0050
Benzo[ghi]perylene	6.6	µg/g	0.15	BH104 SS1	<0.0050	<0.0050	<0.0050
Benzo[k]fluoranthene	0.78	µg/g	0.089	BH104 SS1	<0.0050	<0.0050	<0.0050
Chrysene	7	µg/g	0.16	BH104 SS1	<0.0050	<0.0050	<0.0050
Dibenz[a,h]anthracene	0.1	µg/g	0.028	BH104 SS1	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	µg/g	0.41	BH104 SS1	<0.0050	0.0076	0.0074
Fluorene	62	µg/g	0.013	BH104 SS1	<0.0050	<0.0050	<0.0050
Indeno[1,2,3-cd]pyrene	0.38	µg/g	0.16	BH104 SS1	<0.0050	<0.0050	<0.0050
Methlynaphthalene, 2-(1-)	0.99	µg/g	<0.0071	Multiple	<0.0071	<0.0071	<0.0071
Methylnaphthalene, 1-	NV	µg/g	<0.005	Multiple	<0.0050	<0.0050	<0.0050
Methylnaphthalene, 2-	NV	µg/g	0.0062	BH106 SS3	<0.0050	<0.0050	<0.0050
Naphthalene	0.6	µg/g	0.0075	BH104 SS1	0.0056	<0.0050	<0.0050
Phenanthrene	6.2	µg/g	0.16	BH104 SS1	<0.0050	<0.0050	0.0086
Pyrene	78	µg/g	0.33	BH104 SS1	<0.0050	0.0058	0.0057

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 4: Summary of Soil Quality Results
Petroleum Hydrocarbons and BTEX
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	MW01-2 1.5 - 2.1 80.9 - 80.3 B930203 2019-02-02	MW02-3 1.5 - 2.1 81.0 - 80.4 B930203 2019-02-02	MW03-3 1.5 - 2.0 80.9 - 80.5 B930203 2019-02-02	BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624 2023-03-07	DUP031 BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624 2023-03-07	BH101 SS4 2.3 - 2.9 80.3 - 79.7 C367624 2023-03-07	BH102 SS2 0.8 - 1.4 81.6 - 81.0 C369099 2023-03-09	BH102 SS4 2.3 - 2.9 80.1 - 79.5 C369099 2023-03-09	BH103 SS2 0.8 - 1.4 81.6 - 81.0 C376739 2023-03-15
BTEX - Benzene, Toluene, Ethylbenzene, Xylene													
Benzene	0.21	µg/g	0.13	BH105 SS4	<0.020	<0.020	<0.020	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Ethylbenzene	2	µg/g	0.31	BH106 SS4	<0.020	<0.020	<0.020	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Toluene	2.3	µg/g	0.021	BH105 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene Mixture	3.1	µg/g	0.061	BH106 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene, m- & p-	NV	µg/g	0.061	BH106 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene, o-	NV	µg/g	<0.02	Multiple	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
PHCs - Petroleum Hydrocarbons													
Petroleum Hydrocarbons F1	55	µg/g	13	BH106 SS4	<10	<10	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F2	98	µg/g	11	BH204 DP5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F3	300	µg/g	340	BH104 SS3	<50	<50	<50	<50	<50	<50	<50	<50	<50
Petroleum Hydrocarbons F4	2800	µg/g	400	BH104 SS3	<50	<50	<50	<50	<50	<50	<50	<50	<50
Reached Baseline at C50	NV	NV	0	#N/A	YES	YES	YES	YES	YES	YES	YES	YES	YES

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 4: Summary of Soil Quality Results
Petroleum Hydrocarbons and BTEX
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH103 SS4 2.3 - 2.9 80.1 - 79.4 C376739 2023-03-15	BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	DUP041 BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624 2023-03-06	BH104 SS3 1.5 - 2.1 81.2 - 80.6 C367624 2023-03-06	BH105 SS2 0.8 - 1.4 81.7 - 81.1 C373368 2023-03-16	BH105 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-16	BH106 SS3 1.5 - 2.1 81.0 - 80.3 C373368 2023-03-13	BH106 SS4 2.3 - 2.9 80.2 - 79.6 C373368 2023-03-13	BH107 SS3 1.5 - 2.1 80.8 - 80.2 C373368 2023-03-13
BTEX - Benzene, Toluene, Ethylbenzene, Xylene													
Benzene	0.21	µg/g	0.13	BH105 SS4	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.13	<0.0060	0.019	<0.0060
Ethylbenzene	2	µg/g	0.31	BH106 SS4	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.31	<0.010
Toluene	2.3	µg/g	0.021	BH105 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	0.021	<0.020	<0.020	<0.020
Xylene Mixture	3.1	µg/g	0.061	BH106 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.061	<0.020
Xylene, m- & p-	NV	µg/g	0.061	BH106 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.061	<0.020
Xylene, o-	NV	µg/g	<0.02	Multiple	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
PHCs - Petroleum Hydrocarbons													
Petroleum Hydrocarbons F1	55	µg/g	13	BH106 SS4	<10	<10	<10	<10	<10	<10	<10	13	<10
Petroleum Hydrocarbons F2	98	µg/g	11	BH204 DP5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F3	300	µg/g	340	BH104 SS3	<50	100	77	340	<50	<50	61	<50	<50
Petroleum Hydrocarbons F4	2800	µg/g	400	BH104 SS3	<50	120	98	400	<50	<50	170	<50	<50
Reached Baseline at C50	NV	NV	0	#N/A	YES	YES	YES	YES	YES	YES	YES	YES	YES

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 4: Summary of Soil Quality Results
Petroleum Hydrocarbons and BTEX
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job # Sampling Date	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH107 SS4 2.3 - 2.9 80.0 - 79.4 C373368 2023-03-13	BH201 DP4A 2.3 - 2.8 80.2 - 79.7 C4J7649 2024-06-25	BH203 DP5 2.4 - 3.0 80.1 - 79.5 C4J7649 2024-06-26	BH204 DP5 2.4 - 3.0 80.3 - 79.6 C4J7649 2024-06-26	BH205 DP4 1.8 - 2.3 81.1 - 80.6 C4J7649 2024-06-26	BH206 DP4 1.8 - 2.4 81.0 - 80.4 C4J7649 2024-06-26	DUP 264 BH206 DP4 1.8 - 2.4 81.0 - 80.4 C4J7649 2024-06-26
BTEX - Benzene, Toluene, Ethylbenzene, Xylene											
Benzene	0.21	µg/g	0.13	BH105 SS4	0.0069	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	2	µg/g	0.31	BH106 SS4	<0.010	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	2.3	µg/g	0.021	BH105 SS4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene Mixture	3.1	µg/g	0.061	BH106 SS4	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Xylene, m- & p-	NV	µg/g	0.061	BH106 SS4	<0.020	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Xylene, o-	NV	µg/g	<0.02	Multiple	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
PHCs - Petroleum Hydrocarbons											
Petroleum Hydrocarbons F1	55	µg/g	13	BH106 SS4	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F2	98	µg/g	11	BH204 DP5	<10	<10	<10	11	<10	<10	<10
Petroleum Hydrocarbons F3	300	µg/g	340	BH104 SS3	<50	<50	<50	55	<50	<50	<50
Petroleum Hydrocarbons F4	2800	µg/g	400	BH104 SS3	<50	<50	<50	<50	<50	<50	<50
Reached Baseline at C50	NV	NV	0	#N/A	YES	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 5: Summary of Soil Quality Results
Volatile Organic Compounds and Trihalomethanes
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job #	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	MW01-2 1.5 - 2.1 80.9 - 80.3 B930203	MW02-3 1.5 - 2.1 81.0 - 80.4 B930203	MW03-3 1.5 - 2.0 80.9 - 80.5 B930203	BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624	DUP031 BH101 SS3 1.5 - 2.1 81.1 - 80.5 C367624	BH101 SS4 2.3 - 2.9 80.3 - 79.7 C367624	BH102 SS2 0.8 - 1.4 81.6 - 81.0 C369099	BH102 SS4 2.3 - 2.9 80.1 - 79.5 C369099	BH103 SS2 0.8 - 1.4 81.6 - 81.0 C376739	BH103 SS4 2.3 - 2.9 80.1 - 79.4 C376739
THMs - Trihalomethanes														
Bromodichloromethane	13	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Bromoform	0.27	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dibromochloromethane	9.4	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
VOCs - Volatile Organic Compounds														
Acetone	16	µg/g	1.4	DUP041	<0.50	<0.50	<0.50	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Bromomethane	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chlorobenzene	2.4	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chloroform	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,2-	3.4	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,3-	4.8	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,4-	0.083	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorodifluoromethane	16	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethane, 1,1-	3.5	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethane, 1,2-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Dichloroethylene, 1,1-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethylene, 1,2-cis-	3.4	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethylene, 1,2-trans-	0.084	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloropropane, 1,2-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloropropene, 1,3-	0.05	µg/g	<0.05	Multiple				<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloropropylene, cis-1,3-	NV	µg/g	<0.03	Multiple				<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Dichloropropylene, trans-1,3-	NV	µg/g	<0.04	Multiple				<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylene dibromide	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Hexane (n)	2.8	µg/g	0.46	BH106 SS4	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	16	µg/g	<0.5	Multiple	<0.50	<0.50	<0.50	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl Isobutyl Ketone	1.7	µg/g	<0.5	Multiple	<0.50	<0.50	<0.50	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl tert-Butyl Ether (MTBE)	0.75	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Methylene Chloride	0.1	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Styrene	0.7	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,1,2-	0.058	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,2,2-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethylene	0.28	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethane, 1,1,1-	0.38	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethane, 1,1,2-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethylene	0.061	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	4	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Vinyl Chloride	0.02	µg/g	<0.02	Multiple	<0.020	<0.020	<0.020	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, amended July 1, 2011. (O.Reg.153/04).

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 5: Summary of Soil Quality Results
Volatile Organic Compounds and Trihalomethanes
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Sample Depth (m) mple Elevation (mASL/mAAD) Lab Job #	Table 3 SCS RPI Coarse	Units	Maximum Concentration	Maximum Concentration Sample ID	BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624	DUP041 BH104 SS1 0.0 - 0.6 82.8 - 82.2 C367624	BH104 SS3 1.5 - 2.1 81.2 - 80.6 C367624	BH105 SS2 0.8 - 1.4 81.7 - 81.1 C373368	BH105 SS4 2.3 - 2.9 80.2 - 79.6 C373368	BH106 SS3 1.5 - 2.1 81.0 - 80.3 C373368	BH106 SS4 2.3 - 2.9 80.2 - 79.6 C373368	BH107 SS3 1.5 - 2.1 80.8 - 80.2 C373368	BH107 SS4 2.3 - 2.9 80.0 - 79.4 C373368
THMs - Trihalomethanes													
Bromodichloromethane	13	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Bromoform	0.27	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dibromochloromethane	9.4	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
VOCs - Volatile Organic Compounds													
Acetone	16	µg/g	1.4	DUP041	0.85	1.4	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Bromomethane	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chlorobenzene	2.4	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chloroform	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,2-	3.4	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,3-	4.8	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorobenzene, 1,4-	0.083	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorodifluoromethane	16	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethane, 1,1-	3.5	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethane, 1,2-	0.05	µg/g	<0.05	Multiple	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Dichloroethylene, 1,1-	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethylene, 1,2-cis-	3.4	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloroethylene, 1,2-trans-	0.084	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloropropane, 1,2-	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichloropropene, 1,3-	0.05	µg/g	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichloropropylene, cis-1,3-	NV	µg/g	<0.03	Multiple	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Dichloropropylene, trans-1,3-	NV	µg/g	<0.04	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylene dibromide	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Hexane (n)	2.8	µg/g	0.46	BH106 SS4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.46	<0.040	<0.040
Methyl Ethyl Ketone	16	µg/g	<0.5	Multiple	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl Isobutyl Ketone	1.7	µg/g	<0.5	Multiple	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl tert-Butyl Ether (MTBE)	0.75	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Methylene Chloride	0.1	µg/g	<0.05	Multiple	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Styrene	0.7	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,1,2-	0.058	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,2,2-	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethylene	0.28	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethane, 1,1,1-	0.38	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethane, 1,1,2-	0.05	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethylene	0.061	µg/g	<0.05	Multiple	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	4	µg/g	<0.05	Multiple	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Vinyl Chloride	0.02	µg/g	<0.02	Multiple	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
Table 3 SCS RPI Coarse means Table 3: Full Depth Generic Site Condition Standards for Soil for Residential/ Parkland/ Institutional Property Uses. Coarse soil texture. Per Ontario Ministry of the Environment document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, amended July 1, 2011. (O.Reg.153/04).

100 (shaded fill)	Exceeds Table 3 SCS RPI Coarse
100 (underlined)	Detection Limit Exceeds Table 3 SCS RPI Coarse

Table 6: Summary of Ground Water Quality Results
Metals and Other Regulated Parameters
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Screened Depth (m) Screened Interval (mASL/mAAD) Lab Job # Sampling Date	O.Reg.153/04 Table 3	UNITS	Max. Sample Conc.	Max. Conc. Sample ID	MW01 1.5 - 4.6 80.9 - 77.8 C4K2462 2024-07-03	MW02 1.5 - 4.6 81.0 - 78.0 B935996 2019-02-07	MW03 1.5 - 4.6 80.9 - 77.9 B930145 2019-02-11	MW03 1.5 - 4.6 80.9 - 77.9 C4K2462 2024-07-03	BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20	DUP duplicate of BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20	BH106 4.9 - 7.9 77.6 - 74.5 C379625 2022-03-21	BH107 6.5 - 9.5 75.9 - 72.8 C379625 2022-03-20	BH202 7.0 - 10.1 75.5 - 72.4 C4K2462 2024-07-02	DUP22 BH202 7.0 - 10.1 75.5 - 72.4 C4K2462 2024-07-02
Metals														
Barium (Ba)	29000	µg/L	220	MW03	65			220	150	150	140	92	43	44
Beryllium (Be)	67	µg/L	<0.4	Multiple	<0.40			<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Boron (B)	45000	µg/L	1700	BH107	59			76	340	330	1100	1700	1000	1000
Cadmium (Cd)	2.7	µg/L	1.3	MW03	0.15			1.3	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Chromium (Cr)	810	µg/L	<5	Multiple	<5.0			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cobalt (Co)	66	µg/L	0.52	BH107	<0.50			<0.50	<0.50	<0.50	<0.50	0.52	<0.50	<0.50
Copper (Cu)	87	µg/L	3.7	MW01	3.7			3.2	2.8	2	1.8	1.2	<0.90	<0.90
Lead (Pb)	25	µg/L	1.1	MW03	<0.50	<0.50	1.1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Mercury (Hg)	0.29	µg/L	<0.1	Multiple	<0.10			<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Molybdenum (Mo)	9200	µg/L	7.2	BH202	7			3.6	5.7	5.9	4.1	5.9	7.2	7.1
Nickel (Ni)	490	µg/L	2.2	BH104	<1.0			1.2	2.2	2.1	1.7	1.5	<1.0	<1.0
Silver (Ag)	1.5	µg/L	<0.09	Multiple	<0.090			<0.090	<0.090	<0.090	<0.090	<0.090	<0.090	<0.090
Thallium (Tl)	510	µg/L	0.09	MW03	<0.050			0.09	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Uranium (U)	420	µg/L	20	Multiple	2.8			1.5	20	20	1.2	2.5	4.9	4.7
Vanadium (V)	250	µg/L	<0.5	Multiple	<0.50			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Zinc (Zn)	1100	µg/L	66	MW03	23			66	8.9	8.3	6.5	6.6	<5.0	<5.0
Hydride-forming Metals														
Antimony (Sb)	20000	µg/L	<0.5	Multiple	<0.50			<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Arsenic (As)	1900	µg/L	1.5	BH106	<1.0			<1.0	1.3	1.3	1.5	1.3	1.3	1.2
Selenium (Se)	63	µg/L	3.5	MW01	3.5			<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0

Notes:

Blanks indicate not analysed.

'NV ' : No Standard established

O.Reg.153/04 Table 3 means O.Reg.153/04 Table 3 means: Table 3 Full Depth Generic Site Condition Standards for Ground Water for All Types of Property Uses. Coarse-textured soil. Per Ontario Ministry of the Environment, Conservation and Parks document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, as amended. (O.Reg.153/04).

100 (shaded fill)	Exceeds O.Reg.153/04 Table 3
<100 (underlined)	Detection Limit Exceeds O.Reg.153/04 Table 3

Table 7: Summary of Ground Water Quality Results
Acid/Base/Neutral Compounds, Polycyclic Aromatic Hydrocarbons, and Chlorophenols
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Screened Depth (m) Screened Interval (mASL/mAAD) Lab Job # Sampling Date	O.Reg.153/04 Table 3	UNITS	Max. Sample Conc.	Max. Conc. Sample ID	MW01 1.5 - 4.6 80.9 - 77.8 B930145 2019-02-04	MW03 1.5 - 4.6 80.9 - 77.9 C4K2462 2024-07-03	BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20	DUP duplicate of BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20
PAHs - Polycyclic Aromatic Hydrocarbons								
Acenaphthene	600	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	1.8	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Anthracene	2.4	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Benz[a]anthracene	4.7	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Benzo[a]pyrene	0.81	µg/L	0.047	BH107	<0.0090	<0.0090	<0.0090	<0.0090
Benzo[b]fluoranthene	0.75	µg/L	0.096	BH107	<0.050	<0.050	<0.050	<0.050
Benzo[ghi]perylene	0.2	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Benzo[k]fluoranthene	0.4	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Chrysene	1	µg/L	0.064	BH107	<0.050	<0.050	<0.050	<0.050
Dibenz[a,h]anthracene	0.52	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Fluoranthene	130	µg/L	0.19	BH107	0.11	<0.050	<0.050	<0.050
Fluorene	400	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Indeno[1,2,3-cd]pyrene	0.2	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Methlynaphthalene, 2-(1-)	1800	µg/L	<0.071	Multiple	<0.071	<0.071	<0.071	<0.071
Methylnaphthalene, 1-	NV	µg/L	0.055	BH106	<0.050	<0.050	<0.050	<0.050
Methylnaphthalene, 2-	NV	µg/L	<0.05	Multiple	<0.050	<0.050	<0.050	<0.050
Naphthalene	1400	µg/L	0.16	BH106	0.05	<0.050	0.05	0.05
Phenanthrene	580	µg/L	0.097	BH107	0.044	<0.030	<0.030	0.032
Pyrene	68	µg/L	0.13	BH107	<0.050	<0.050	<0.050	<0.050

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
O.Reg.153/04 Table 3 means O.Reg.153/04 Table 3 means: Table 3 Full Depth Generic Site Condition Standards for Ground Water for All Types of Property Uses. Coarse-textured soil. Per Ontario Ministry of the Environment, Conservation and Parks document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, as amended. (O.Reg.153/04).

100 (shaded fill)	Exceeds O.Reg.153/04 Table 3
100 (bolded)	#N/A
<100 (underlined)	Detection Limit Exceeds O.Reg.153/04 Table 3
<100 (italicized)	#N/A

Table 8: Summary of Ground Water Quality Results
Petroleum Hydrocarbons and BTEX
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Screened Depth (m) Screened Interval (mASL/mAAD) Lab Job # Sampling Date	O.Reg.153/04 Table 3	UNITS	Max. Sample Conc.	Max. Conc. Sample ID	MW01 1.5 - 4.6 80.9 - 77.8 B930145 2019-02-04	MW01 1.5 - 4.6 80.9 - 77.8 C4K2462 2024-07-03	MW02 1.5 - 4.6 81.0 - 78.0 B935996 2019-02-07	MW03 1.5 - 4.6 80.9 - 77.9 B930145 2019-02-11	MW03 1.5 - 4.6 80.9 - 77.9 C4K2462 2024-07-03	BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20	DUP duplicate of BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20
BTEX - Benzene, Toluene, Ethylbenzene, X											
Benzene	44	µg/L	2.2	MW02	<0.17	<0.20	2.2	<0.17	<0.20	<0.17	<0.17
Ethylbenzene	2300	µg/L	0.64	MW02	<0.20	<0.20	0.64	<0.20	<0.20	<0.20	<0.20
Toluene	18000	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Xylene Mixture	4200	µg/L	<0.4	Multiple	<0.20	<0.40	0.31	<0.20	<0.40	<0.20	<0.20
Xylene, m- & p-	NV	µg/L	<0.4	Multiple	<0.20	<0.40	0.31	<0.20	<0.40	<0.20	<0.20
Xylene, o-	NV	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
PHCs - Petroleum Hydrocarbons											
Petroleum Hydrocarbons F1	750	µg/L	<25	Multiple	<25	<25	<25	<25	<25	<25	<25
Petroleum Hydrocarbons F1-BTEX	750	µg/L	<25	Multiple	<25	<25	<25	<25	<25	<25	<25
Petroleum Hydrocarbons F2	150	µg/L	<100	Multiple	<100	<100	<100	<100	<100	<100	<100
Petroleum Hydrocarbons F3	500	µg/L	<200	Multiple	<200	<200	<200	<200	<200	<200	<200
Petroleum Hydrocarbons F4	500	µg/L	<200	Multiple	<200	<200	<200	<200	<200	<200	<200
Reached Baseline at C50	NV	0	0	#N/A	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
O.Reg.153/04 Table 3 means O.Reg.153/04 Table 3 means: Table 3 Full Depth Generic Site Condition Standards for Ground Water for All Types of Property Uses. Coarse-textured soil. Per Ontario Ministry of the Environment, Conservation and Parks document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, as amended. (O.Reg.153/04).

100 (shaded fill)	Exceeds O.Reg.153/04 Table 3
100 (bolded)	#N/A
<u>≤100 (underlined)</u>	Detection Limit Exceeds O.Reg.153/04 Table 3
<100 (italicized)	#N/A

Table 8: Summary of Ground Water Quality Results
Petroleum Hydrocarbons and BTEX
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Screened Depth (m) Screened Interval (mASL/mAAD) Lab Job # Sampling Date	O.Reg.153/04 Table 3	UNITS	Max. Sample Conc.	Max. Conc. Sample ID	BH106 4.9 - 7.9 77.6 - 74.5 C379625 2022-03-21	BH107 6.5 - 9.5 75.9 - 72.8 C379625 2022-03-20	BH202 7.0 - 10.1 75.5 - 72.4 C4K2462 2024-07-02	DUP22 BH202 7.0 - 10.1 75.5 - 72.4 C4K2462 2024-07-02
BTEX - Benzene, Toluene, Ethylbenzene, X								
Benzene	44	µg/L	2.2	MW02	<0.17	<0.17	<0.20	<0.20
Ethylbenzene	2300	µg/L	0.64	MW02	<0.20	<0.20	<0.20	<0.20
Toluene	18000	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20
Xylene Mixture	4200	µg/L	<0.4	Multiple	<0.20	<0.20	<0.40	<0.40
Xylene, m- & p-	NV	µg/L	<0.4	Multiple	<0.20	<0.20	<0.40	<0.40
Xylene, o-	NV	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20
PHCs - Petroleum Hydrocarbons								
Petroleum Hydrocarbons F1	750	µg/L	<25	Multiple	<25	<25	<25	<25
Petroleum Hydrocarbons F1-BTEX	750	µg/L	<25	Multiple	<25	<25	<25	<25
Petroleum Hydrocarbons F2	150	µg/L	<100	Multiple	<100	<100	<100	<100
Petroleum Hydrocarbons F3	500	µg/L	<200	Multiple	<200	<200	<200	<200
Petroleum Hydrocarbons F4	500	µg/L	<200	Multiple	<200	<200	<200	<200
Reached Baseline at C50	NV	0	0	#N/A	Yes	Yes	Yes	Yes

Notes:

Blanks indicate not analysed.

'NV ' : No Standard established

O.Reg.153/04 Table 3 means O.Reg.153/04 Table 3 means: Table 3 Full Depth Generic Site Condition Standards for Ground Water for All Types of Property Uses. Coarse-textured soil. Per Ontario Ministry of the Environment, Conservation and Parks document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, as amended. (O.Reg.153/04).

100 (shaded fill)	Exceeds O.Reg.153/04 Table 3
100 (bolded)	#N/A
<u>≤100 (underlined)</u>	Detection Limit Exceeds O.Reg.153/04 Table 3
<100 (italicized)	#N/A

Table 9: Summary of Ground Water Quality Results
Volatile Organic Compounds and Trihalomethanes
2072 Lakeshore Road, Burlington, ON

Sample ID Sample Note Screened Depth (m) Screened Interval (mASL/mAAD) Lab Job # Sampling Date	O.Reg.153/04 Table 3	UNITS	Max. Sample Conc.	Max. Conc. Sample ID	MW01 1.5 - 4.6 80.9 - 77.8 B930145 2019-02-04	MW02 1.5 - 4.6 81.0 - 78.0 B935996 2019-02-07	MW03 1.5 - 4.6 80.9 - 77.9 B930145 2019-02-11	BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20	DUP duplicate of BH104 6.7 - 9.7 76.1 - 73.1 C379625 2022-03-20
VOCs - Volatile Organic Compounds									
Acetone	130000	µg/L	17	MW02	<10	17	<10	<10	<10
Bromodichloromethane	85000	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	380	µg/L	<1	Multiple	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	5.6	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.79	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	630	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	2.4	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	82000	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylene dibromide	0.25	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorobenzene, 1,2-	4600	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorobenzene, 1,3-	9600	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorobenzene, 1,4-	8	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	4400	µg/L	<1	Multiple	<1.0	<1.0	<1.0	<1.0	<1.0
Dichloroethane, 1,1-	320	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethane, 1,2-	1.6	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichloroethylene, 1,1-	1.6	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloroethylene, 1,2-cis-	1.6	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichloroethylene, 1,2-trans-	1.6	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Dichloropropane, 1,2-	16	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Dichloropropylene, cis-1,3-	NV	µg/L	<0.3	Multiple	<0.30	<0.30	<0.30	<0.30	<0.30
Dichloropropylene, trans-1,3	NV	µg/L	<0.4	Multiple	<0.40	<0.40	<0.40	<0.40	<0.40
Hexane (n)	51	µg/L	<1	Multiple	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl Ethyl Ketone	470000	µg/L	<10	Multiple	<10	<10	<10	<10	<10
Methyl Isobutyl Ketone	140000	µg/L	<5	Multiple	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl tert-Butyl Ether (MTBE)	190	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	NV	µg/L	<2	Multiple	<2.0	<2.0	<2.0	<2.0	<2.0
Styrene	1300	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethane, 1,1,1,2-	3.3	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethane, 1,1,2,2-	3.2	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	1.6	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethane, 1,1,1-	640	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethane, 1,1,2-	4.7	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	1.6	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	2500	µg/L	<0.5	Multiple	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl Chloride	0.5	µg/L	<0.2	Multiple	<0.20	<0.20	<0.20	<0.20	<0.20

Notes:
Blanks indicate not analysed.
'NV ' : No Standard established
O.Reg.153/04 Table 3 means O.Reg.153/04 Table 3 means: Table 3 Full Depth Generic Site Condition Standards for Ground Water for All Types of Property Uses. Coarse-textured soil. Per Ontario Ministry of the Environment, Conservation and Parks document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, " March 2004, as amended. (O.Reg.153/04).

100 (shaded fill)	Exceeds O.Reg.153/04 Table 3
100 (bolded)	#N/A
<u><100 (underlined)</u>	Detection Limit Exceeds O.Reg.153/04 Table 3
<100 (italicized)	#N/A

APPENDIX A



File No. 22-282
May 2023

Phase One Environmental Conceptual Site Model

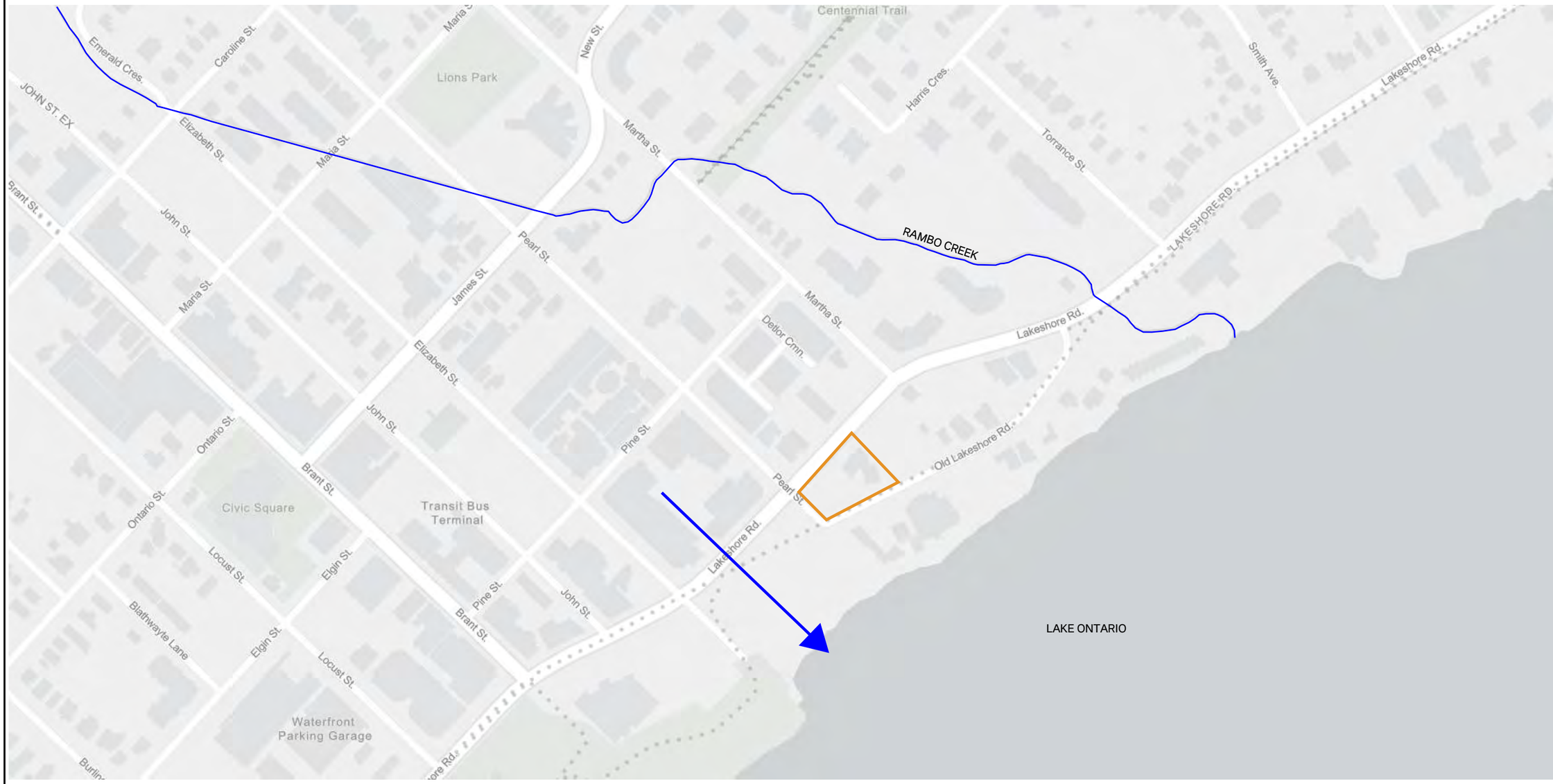
2072 Lakeshore Road, Burlington, Ontario

Phase One ESA including Figures of the Phase One Study Area, which identify the following:	**Phase One ESA Information:**
Existing buildings and structures	Existing building and structures are presented in Figure 2.
Water bodies located in whole or in part on the Phase One Study Area	All water bodies on the Phase One Property and Phase One Study Area are shown on Figure 3.
Areas of Natural Significance located in whole or in part on the Phase One Study Area	No Life Science ANSIs were identified on the property or within the study area. No Earth Science ANSIs were identified on the property or within the study area.
Roads (including names) within the Phase One Study Area	All roads within the Phase One Study Area are shown on Figure 3.
Use of properties adjacent to the Phase One Property	The land use of properties adjacent to the Phase One Property is shown on Figure 3.
Location of drinking water wells on the Phase One Property	No drinking water wells were present on the Phase One Property.
Areas where any PCA has occurred, and locations of tanks in the Phase One Study Area	The location of PCAs and tanks, if any, is shown on Figure 4.
APECs on the Phase One Property	The location of APECs on the Phase One Property is shown on Figure 5.
Narrative Description and Assessments	
Any areas where Potentially Contaminating Activity (PCAs) on, or potentially affecting, the Phase One Property have occurred	<u>On-site PCAs Associated with **APEC 1**:</u> • #28$_A$ – Gasoline and Associated Products Storage in Fixed Tanks <u>On-site PCAs Associated with **APEC 2**:</u> • #30$_A$ – Importation of Fill Material of Unknown Quality <u>On-site PCAs Associated with **APEC 3**:</u> • #Other1$_A$ – De-icing Activities

	Off-site PCAs Associated with **APEC 4**: • #34_A – Metal Fabrication Off-site PCAs Associated with **APEC 5**: • #28_C – Gasoline and Associated Products Storage in Fixed Tanks
Any Contaminants of Potential Concerns (CoPCs)	CoPCs Associated with **APEC 1**: • PAHs, BTEX, PHCs, and VOCs in soil and groundwater CoPCs Associated with **APEC 2**: • Metals, As, Sb, Se, CN-, Hg, Cr(VI), pH, PAHs, BTEX, and PHCs in soil and groundwater • B-HWS in soil CoPCs Associated with **APEC 3**: • EC and SAR in soil • Na and Cl in groundwater CoPCs Associated with **APEC 4**: • Metals, As, Sb, Se, Hg, BTEX, PHCs, and VOCs in groundwater CoPCs Associated with **APEC 5**: • PAHs, BTEX, PHCs, and VOCs in groundwater
The potential of underground utilities (if any present) to affect contaminant distribution and transport	Buried hydro, gas, communication, water and electrical all run through the Property. Based on these observations, there is the potential for underground utilities to affect the distribution and transportation of contaminants underneath the Property.
Available regional or site specific geological and hydrogeological information	Topography: • The site has an approximate ground surface elevation of 82 - 83 masl and is generally flat lying. Hydrology: • The nearest body of water is Lake Ontario, located approximately 50 m south of the Property. The Property is located within the Lower Rambo Creek Watershed. • Surface water flow is expected to flow to the municipal catch basins located on the Property and the adjacent roadways of the Property. Groundwater is expected to flow south, towards Lake Ontario. Overburden:

	• The overburden soils are composed of clay to silt textured till derived from glacioclustrine deposits or shale, underlain by bedrock. <u>Bedrock:</u> • Bedrock beneath the site is composed of shale, limestone, dolostone and siltstone and are part of the Queenston Formation. • Based on well records within the Study Area, bedrock is encountered at approximately 4 mbgs.
Any uncertainty or absence of information obtained in the Phase One ESA that could affect the validity of the CSM	No uncertainty or absence of information obtained in the Phase One ESA is identified to have an effect on the validity of the CSM.

Figure 1 – Site Location Plan
Figure 2 – Phase One Property
Figure 3 – Phase One Study Area
Figure 4 – PCA Locations
Figure 5 – APEC Locations



0m 50m 100m

GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- INFERRED GROUNDWATER FLOW DIRECTION

Note

Reference

ArcGIS Map

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

SITE LOCATION PLAN

North

TRUE PROJECT

Date

MARCH 2023

Scale

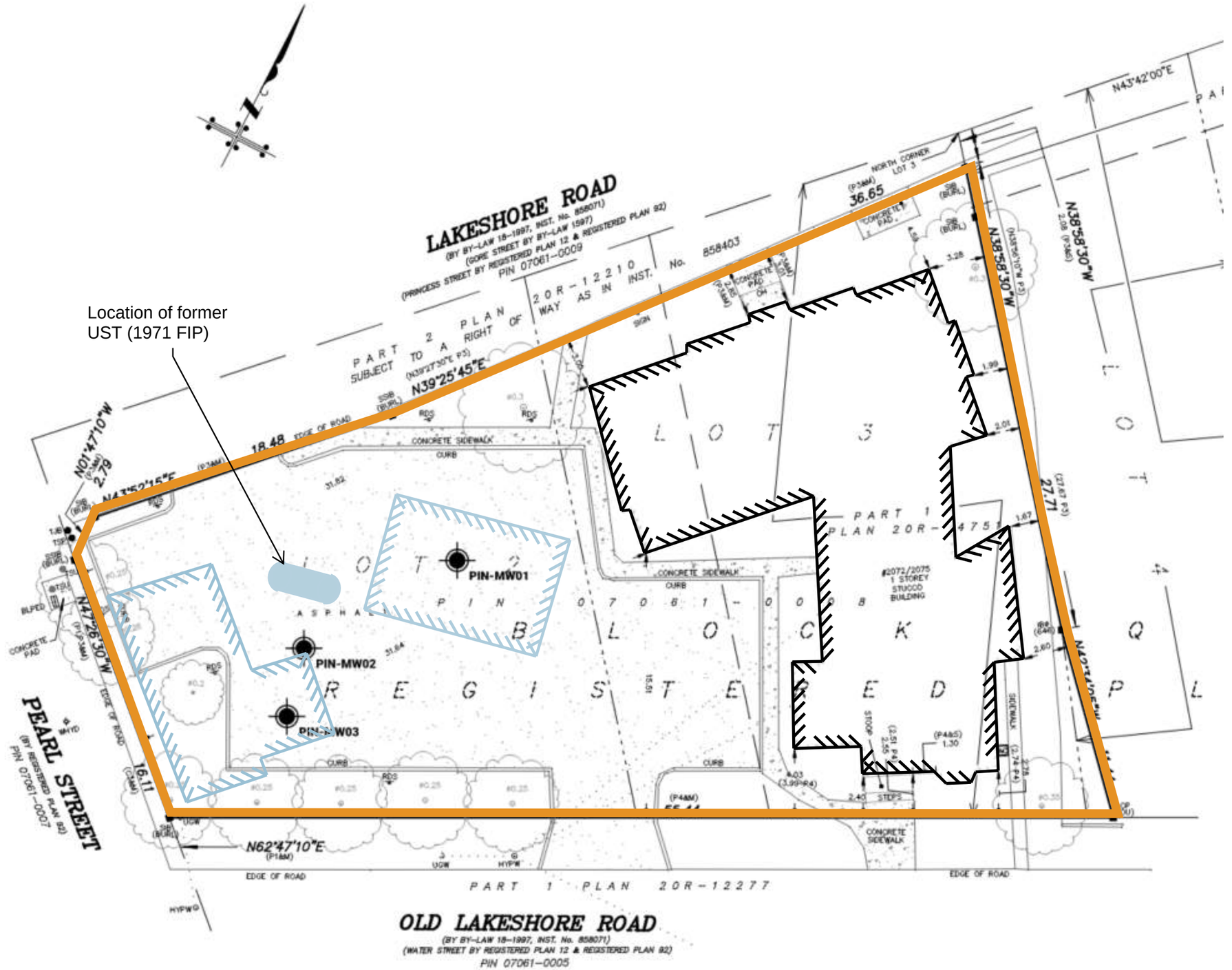
AS INDICATED

Job No

22-282

Figure No

FIGURE 1



GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- FORMER BUILDING STRUCTURE
- MONITORING WELL/BOREHOLE BY OTHERS
- GAS — GAS
- E — ELECTRICAL
- H — BURIED HYDRO
- WM — WATER
- COMM — COMMUNICATION
- MH — MANHOLE
- CB — CATCH BASIN

Note

Reference

Survey Drawing no. 35165.
Certificate date: November 21, 2016.
Prepared by A.T. McLaren Limited.
Received on April 13, 2022.

Project

2072 LAKESHORE ROAD BURLINGTON, ONTARIO,

Figure Title

PHASE ONE PROPERTY

North

TRUE
PROJECT

Date

MARCH 2023

Scale

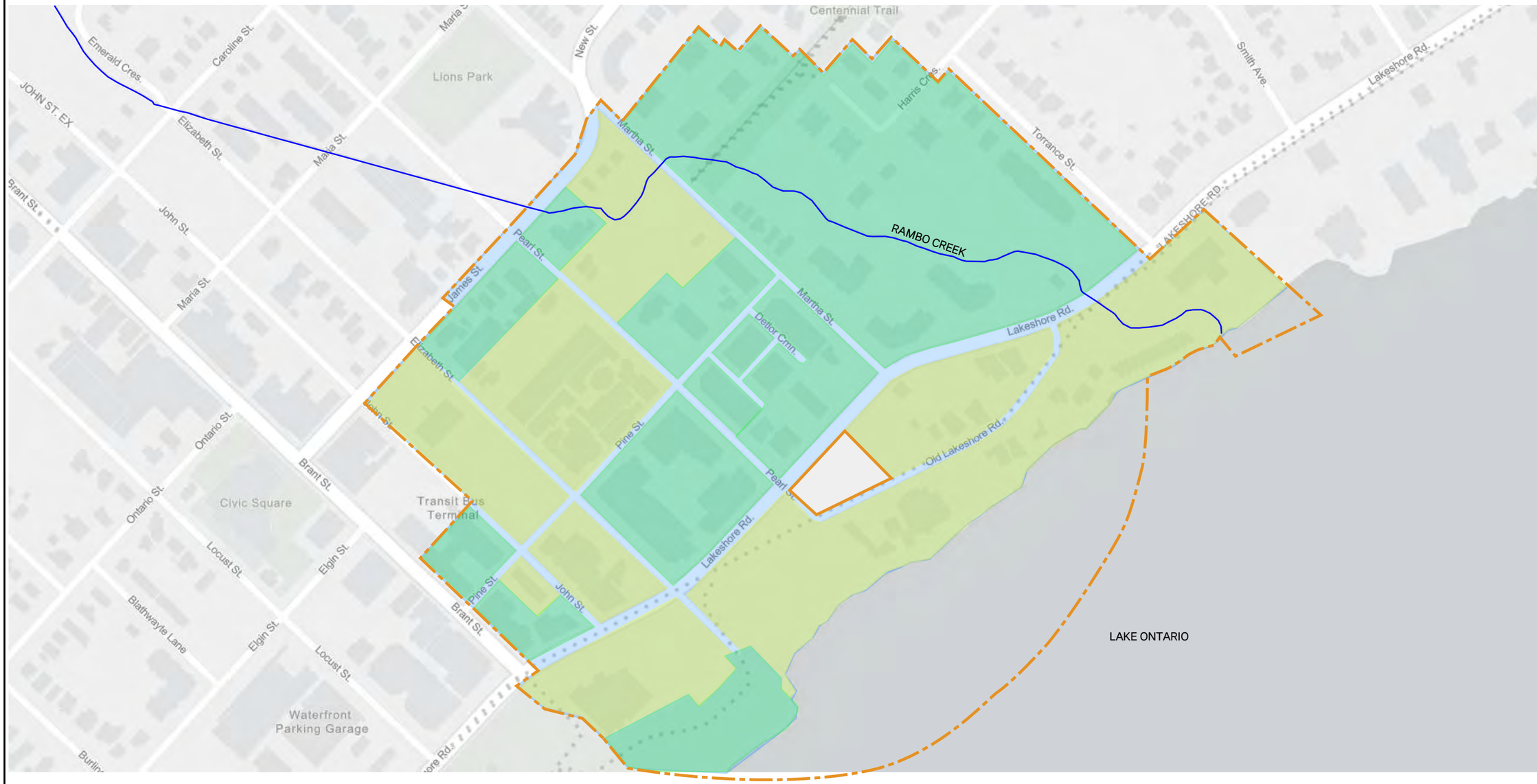
AS INDICATED

Job No

22-282

Figure No

FIGURE 2



GROUNDED ENGINEERING

1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- STUDY AREA (250 m RADIUS)
- AGRICULTURAL OR OTHER LAND USE
- COMMERCIAL LAND USE
- COMMUNITY LAND USE
- INDUSTRIAL LAND USE
- RESIDENTIAL, PARKLAND, AND INSTITUTIONAL LAND USE

Note

Reference

ArcGIS Map

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

PHASE ONE STUDY AREA

North

TRUE

PROJECT

Date

MARCH 2023

Scale

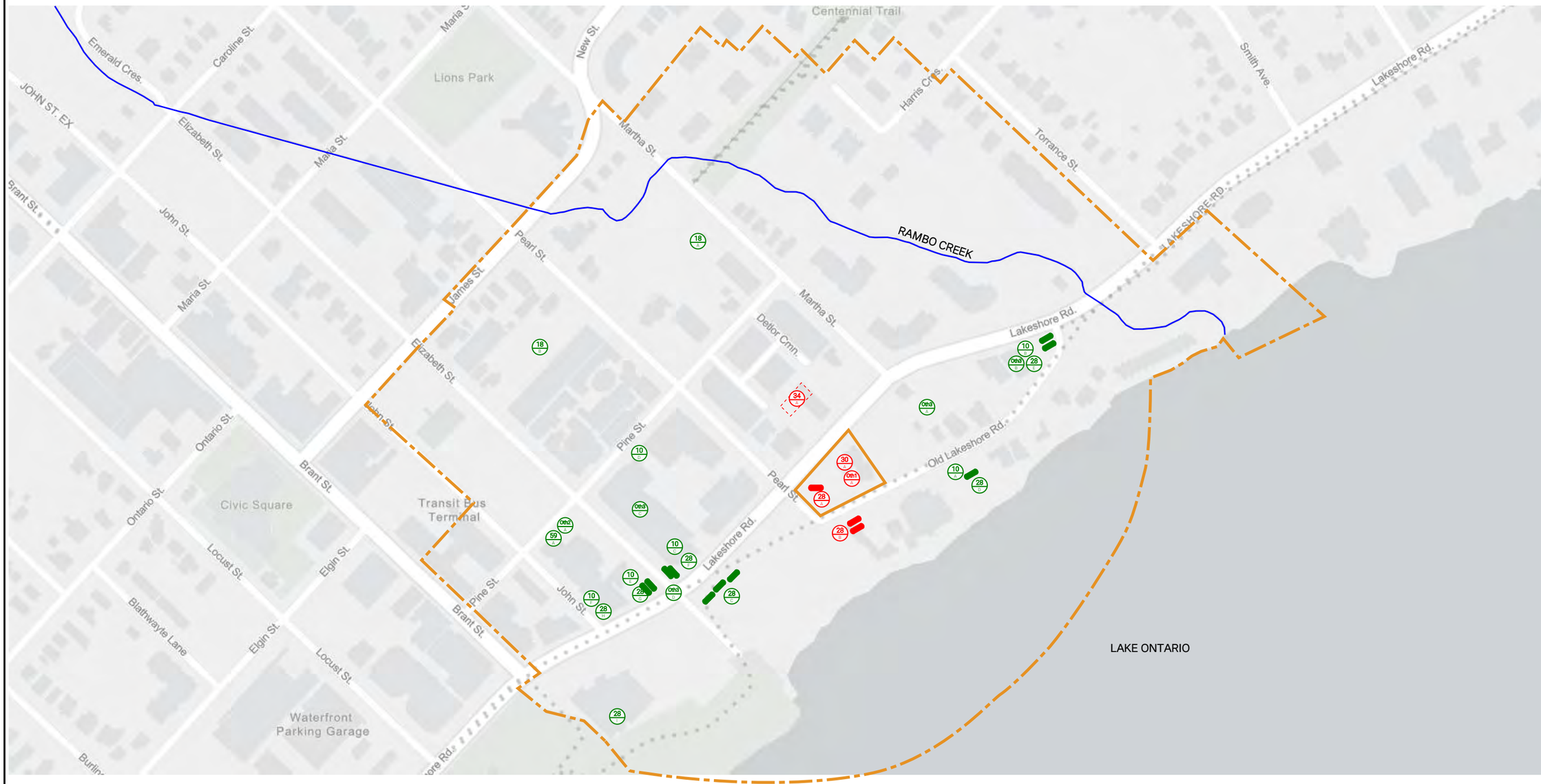
AS INDICATED

Job No

22-282

Figure No

FIGURE 3



GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- STUDY AREA (250 m RADIUS)

#10 – Commercial Autobody Shops
#18 – Electricity Generation, Transformation and Power Stations
#28 – Gasoline and Associated Products Storage in Fixed Tanks
#30 – Importation of Fill Material of Unknown Quality
#34 – Metal Fabrication
#59 – Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
#01 – De-icing Activities
#02 – Coal Storage
#03 – Ontario Spills

- PROPERTY/BUILDING OUTLINE WHERE APEC-CAUSING PCA OCCURRED
- UNDERGROUND FUEL STORAGE TANK - Historic

Note

GREEN - PCA NOT CAUSING APEC
RED - PCA CAUSING APEC

Reference

ArcGIS Map

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

PCA LOCATIONS

North

Date

FEBRUARY 2023

Scale

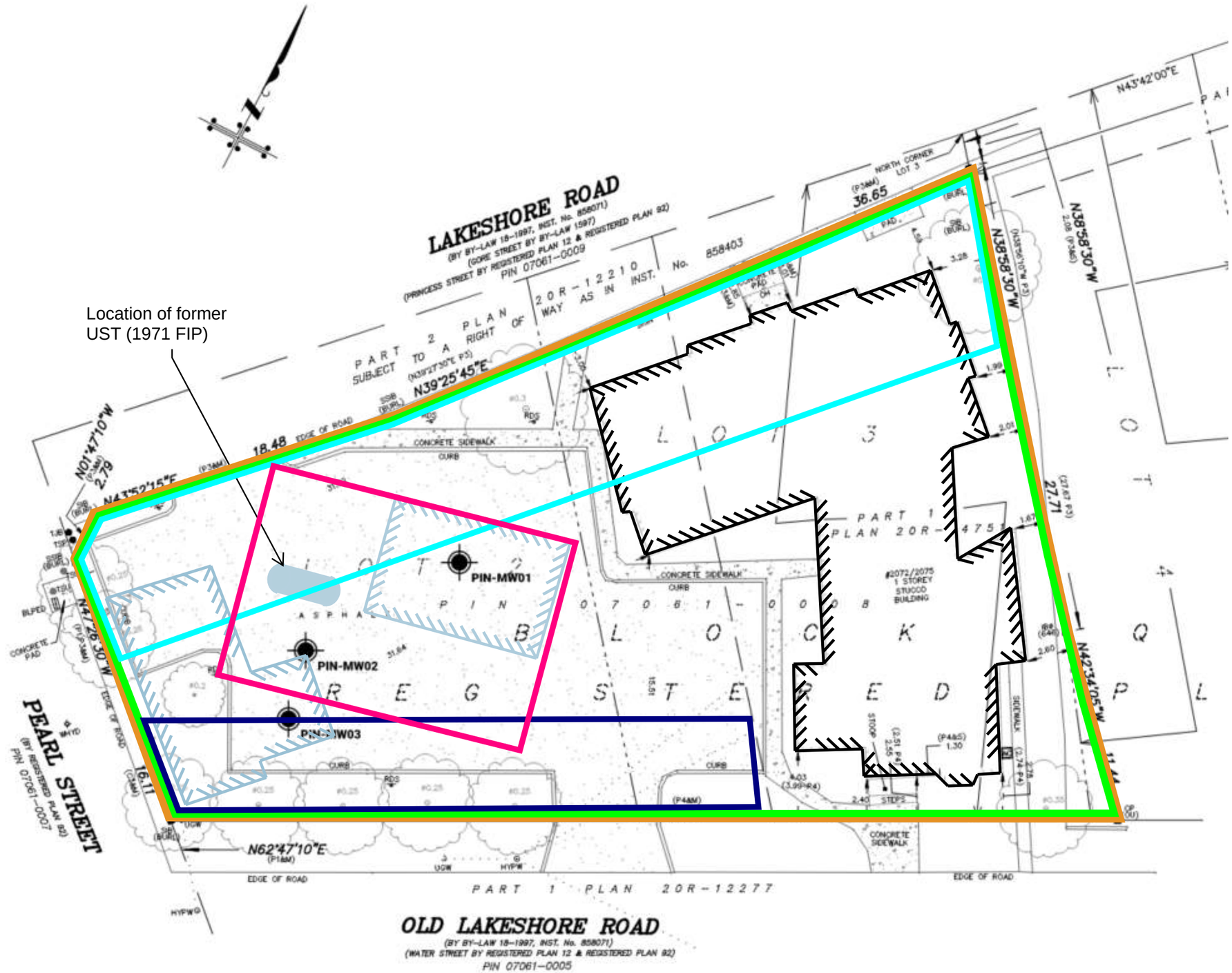
AS INDICATED

Job No

22-282

Figure No

FIGURE 4



GROUNDED ENGINEERING
1 BANIGAN DRIVE, TORONTO, ONT., M4H 1G3
www.groundedeng.ca

LEGEND

- PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- MONITORING WELL/BOREHOLE BY OTHERS
- APEC 1
- APEC 2 & 3
- APEC 4
- APEC 5
- FORMER BUILDING STRUCTURE

Note

Reference

Survey Drawing no. 35165.
Certificate date: November 21, 2016.
Prepared by A.T. McLaren Limited.
Received on April 13, 2022.

Project

2072 LAKESHORE ROAD, BURLINGTON, ONTARIO

Figure Title

APEC LOCATIONS

North

Date

MARCH 2023

Scale

AS INDICATED

Job No

22-282

Figure No

FIGURE 5

Appendix B: Sampling and Analysis Plan

Areas of Potential Environmental Concern (APECs) & Location	Potentially Contaminating Activities (PCAs)	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)	Borehole or Monitoring Well Associated	Rationale
APEC 1 (Central Portion of the Property)	#28$_A$ – Gasoline and Associated Products Storage in Fixed Tanks	PHCs BTEX PAHs	Soil & Groundwater	PIN-MW01 BH105 BH107 BH201	• To assess if the soil and groundwater within the APEC was impacted due to historical gasoline station. • To determine depth to groundwater and direction of flow.
APEC 2 (Entire Phase One Property)	#30$_A$ - Importation of Fill Material of Unknown Quality	Metals As, Sb, SE CN- Hg Cr(VI) PAHs PHCs VOCs BTEX	Soil & Groundwater	PIN-MW01 – PIN-MW03 BH101 – BH107 BH201- BH206	• To assess if the soil and groundwater within the APEC was impacted due to historical use of fill of unknown quality. • To determine depth to groundwater and direction of flow.
		B-HWS Low or High pH	Soil		
APEC 3 (Exterior Portions of Phase One Property)	#Other1$_A$ - De-icing Activities	EC SAR	Soil	BH101 – BH107 BH201- BH206	• To assess if the soil and groundwater within the APEC was impacted due to current and historical use of de-icing activities. • To determine depth to groundwater and direction of flow.
		Cl Na	Groundwater		
APEC 4 (Northern Portion of the Phase One Property)	#34$_A$ – Metal Fabrication	Metals As, Sb, Se, Hg Cr(VI) PHCs VOCs BTEX	Groundwater	PIN-MW02 BH101 BH104 BH105	• To assess if the groundwater within the APEC was impacted due to historical machine shop located off-site.

Areas of Potential Environmental Concern (APECs) & Location	Potentially Contaminating Activities (PCAs)	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)	Borehole or Monitoring Well Associated	Rationale
APEC 5 (Southwestern Portion of the Phase One Property)	#28_B – Gasoline and Associated Products Storage in Fixed Tanks	PHCs VOCs BTEX PAHs	Groundwater	PIN-MW03 BH106 BH202	• To assess if the groundwater within the APEC was impacted due to historical tanks located off-site. • To determine the potential presence of LNAPLs onsite that may have migrated to the Property from off-site historical tanks.

Boreholes BH203 to BH206 were advanced to horizontally delineate the PHC (F3) impacts in BH104, identified during Grounded's 2023 investigation.

APPENDIX B



Appendix B: Sampling and Analysis Plan

Areas of Potential Environmental Concern (APECs) & Location	Potentially Contaminating Activities (PCAs)	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)	Borehole or Monitoring Well Associated	Rationale
APEC 1 (Central Portion of the Property)	#28$_A$ – Gasoline and Associated Products Storage in Fixed Tanks	PHCs BTEX PAHs	Soil & Groundwater	PIN-MW01 BH105 BH107 BH201	• To assess if the soil and groundwater within the APEC was impacted due to historical gasoline station. • To determine depth to groundwater and direction of flow.
APEC 2 (Entire Phase One Property)	#30$_A$ - Importation of Fill Material of Unknown Quality	Metals As, Sb, SE CN- Hg Cr(VI) PAHs PHCs VOCs BTEX	Soil & Groundwater	PIN-MW01 – PIN-MW03 BH101 – BH107 BH201- BH206	• To assess if the soil and groundwater within the APEC was impacted due to historical use of fill of unknown quality. • To determine depth to groundwater and direction of flow.
		B-HWS Low or High pH	Soil		
APEC 3 (Exterior Portions of Phase One Property)	#Other1$_A$ - De-icing Activities	EC SAR	Soil	BH101 – BH107 BH201- BH206	• To assess if the soil and groundwater within the APEC was impacted due to current and historical use of de-icing activities. • To determine depth to groundwater and direction of flow.
		Cl Na	Groundwater		
APEC 4 (Northern Portion of the Phase One Property)	#34$_A$ – Metal Fabrication	Metals As, Sb, Se, Hg Cr(VI) PHCs VOCs BTEX	Groundwater	PIN-MW02 BH101 BH104 BH105	• To assess if the groundwater within the APEC was impacted due to historical machine shop located off-site.

Areas of Potential Environmental Concern (APECs) & Location	Potentially Contaminating Activities (PCAs)	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)	Borehole or Monitoring Well Associated	Rationale
APEC 5 (Southwestern Portion of the Phase One Property)	#28_B – Gasoline and Associated Products Storage in Fixed Tanks	PHCs VOCs BTEX PAHs	Groundwater	PIN-MW03 BH106 BH202	• To assess if the groundwater within the APEC was impacted due to historical tanks located off-site. • To determine the potential presence of LNAPLs onsite that may have migrated to the Property from off-site historical tanks.

Boreholes BH203 to BH206 were advanced to horizontally delineate the PHC (F3) impacts in BH104, identified during Grounded's 2023 investigation.

APPENDIX C



SOIL SAMPLING GUIDE

The procedures outlined in this guide are designed to ensure that the collected soil samples are representative of current site conditions at that time. Soil samples can be collected for onsite screening or for laboratory analysis.

This guideline is written for the sole use of the company employees and will be revised periodically to reflect updates to company policies, work practices, and applicable provincial / territorial and / or federal guidance.

ACRONYMS AND ABBREVIATIONS

A list of common acronyms and abbreviations:

°C	Degrees Celsius	TOV	Total Organic Vapour
PPE	Personal Protective Equipment	IDW	Investigation Derived Waste
CGD	Combustible Gas Detector	QAPP	Quality Assurance Project Plan
TCV	Total Combustible Vapour	QA/QC	Quality Assurance / Quality Control
CGD	Combustible Gas Detector	MIT	Massachusetts Institute of Technology Soil Classification System
PID	Photoionization Detector		

PREPARING FOR SOIL SAMPLING EVENT

When preparing for the soil sampling event, field staff are reminded to:

- Review project scope of work (e.g., proposal) with Project Manager to ensure project requirements are understood
- Review the soil sampling guideline
- Prepare / obtain / rent equipment as needed, including:
    - Field Book
    - PPE (Change disposable gloves for each sample, to limit the possibility for cross-contamination)
    - Field screening equipment (e.g., CGD, PID, etc.)
    - Sample containers
    - Hand tools (e.g., knife, trowel, pocket penetrometer, etc.)
    - Tape measure
    - Sampling equipment (see potential options below)
    - Decontamination supplies (Use lab grade soap and distilled water)

SAMPLING PROGRAM

When preparing for the sampling event, it is appropriate to consider the sampling equipment to be used and the depth of the sample(s) required (e.g., surface, or subsurface). Below is a list of common sampling equipment and approaches:

SAMPLING APPROACH	TO CONSIDER
BOREHOLE 	▪ Borehole to be generally completed by a subcontracted driller unless completed by hand augering which may be done by Grounded staff. ▪ Typical sampling devices include spilt spoons and polyethylene liners. ▪ Sample intervals are project specific to be defined by the Project Manager.
TEST PITS 	▪ NEVER enter a trench, test pit or excavation unless authorized by the Project Manager. ▪ Trench, test pit or excavation to be completed by a subcontractor ▪ A trowel or hand auger may be used within the test pit if it safe to enter. ▪ Sample from the excavator's bucket if the test pit is not safe to enter. Ensure the bucket is at rest and the machinery is turned off when collecting the sample. Always maintain eye contact with the operator when machinery is on. ▪ Log the entire soil stratigraphy within the test pit.
STOCKPILES 	▪ Stockpiles can be sampled either via machinery, hand, or a combination of the two. ▪ Sample the stockpile as directed by the Project Manager. Note there are defined provincial and federal sample requirements.

MACHINERY / DRILL RIG **refer to drilling standard operating procedure for further details	
SAMPLING APPROACH	**TO CONSIDER**
EXCAVATOR 	▪ The excavator shall only be operated by a trained person. Grounded staff shall NOT operate the equipment under any circumstance. ▪ Grounded staff shall have completed training in relation to working around heavy equipment prior to undertaking work. ▪ The operator shall collect the sample and bring to Grounded staff. ▪ The excavator shall not be in operation when Grounded staff are collecting a sample. ▪ The sample shall be collected from within the excavator bucket away from the edges and excavator teeth. ▪ The sample shall be collected away or upwind of fuel-powered equipment (e.g., drill rigs, excavators, backhoes, etc.) and upwind of other site activities (e.g., purging, sampling, decontamination) that could influence the sample.
BACKHOE 	▪ The backhoe shall only be operated by a trained person. Grounded staff shall NOT operate the equipment under any circumstance. ▪ Grounded staff shall have completed training in relation to working around heavy equipment prior to undertaking work. ▪ The operator shall collect the sample and bring to Grounded staff. ▪ The backhoe shall not be in operation when Grounded staff are collecting a sample. ▪ The sample shall be collected from within the backhoe bucket away from the edges and backhoe teeth. ▪ The sample shall be collected away or upwind of fuel-powered equipment (e.g., drill rigs, excavators, backhoes, etc.) and upwind of other site activities (e.g., purging, sampling, decontamination) that could influence the sample.

PIONJAR ® 	▪ Specialized equipment used in limited access conditions (e.g., cramped quarters, low height clearance, restricted access, etc.). ▪ Equipment varies depending on drilling contractor (e.g., PionJar®, tripod, portable with power pack, etc.). ▪ Be aware of limitations of equipment and note limited access rigs are not meant for deep investigative work.
HILTI 	▪ Specialized equipment used in limited access conditions (e.g., cramped quarters, low height clearance, restricted access, etc.). ▪ Equipment varies depending on drilling contractor (e.g., PionJar®, tripod, portable with power pack, etc.). ▪ Hilti drilling has mud rotary and rock coring capabilities. ▪ Be aware of limitations of equipment.
K40 	▪ Specialized equipment used in limited access conditions (e.g., cramped quarters, low height clearance, restricted access, etc.). ▪ Equipment varies depending on drilling contractor (e.g., PionJar®, tripod, portable with power pack, etc.). ▪ K40 drilling has mud rotary and rock coring capabilities. ▪ Be aware of limitations of equipment.
LIMITED ACCESS RIG (LAR) 	▪ Specialized equipment used in limited access conditions (e.g., cramped quarters, low height clearance, restricted access, etc.). ▪ Equipment varies depending on drilling contractor (e.g., PionJar®, tripod, portable with power pack, etc.). ▪ Limited Access Rig (LAR) drilling has mud rotary and rock coring capabilities ▪ Be aware of limitations of equipment.
DIRECT PUSH 	▪ Generally preferred for environmental investigations, provides continuous undisturbed soil samples. ▪ Has ability to auger, but strengths lie in direct push capabilities. ▪ Limitations based on soil conditions. ▪ Equipment varies depending on drilling contractor (e.g., track mount, truck mount, skid steer mount, etc.). ▪ Recent developments with equipment allow SPT sampling and rock coring capabilities (dependent on drill rig and drilling contractor).

CONVENTIONAL 	▪ Generally preferred for geotechnical investigations as it provides SPT values and generally more powerful as compared to direct push drill rigs, provides continuous undisturbed soil samples. ▪ Limitations based on height restrictions. ▪ Equipment varies depending on drilling contractor (e.g., track mount, truck mount, barge mount, etc.). ▪ Very versatile as many drilling options available including: SPT, mud rotary, triconing, telescopic drilling, etc.
SONIC 	▪ Specialized equipment used in adverse drilling conditions (e.g., flowing sands, rock core spoils, etc.). ▪ High hourly rates. ▪ Requires significant height clearance. ▪ Versatile drill rig like a conventional drill rig capability.

SAMPLERS	TO CONSIDER
SPLIT SPOON 	▪ Sample can be obtained from the following above mentioned drill rigs: limited access, direct push, conventional. ▪ Sample to be collected by a licensed driller, who will provide the sample to Grounded, post sample collection. ▪ Sampler is decontaminated between samples. ▪ Sampler shall only be opened by the driller to prevent injury to Grounded staff. ▪ The sample shall be collected away or upwind of fuel-powered equipment (e.g., drill rigs, excavators, backhoes, etc.) and upwind of other site activities (e.g., purging, sampling, decontamination) that could influence the sample.
SHOVEL 	▪ Shovel is in good condition with no noticeable defects. ▪ Shovel is made of non-reactive and non-leachable materials which are compatible with the chemical constituents at the site. E.g. Stainless steel, not plastic. ▪ Decontamination equipment is present to decontaminate between samples. ▪ Preferred depth of sample is achievable with shovel. Ideal for shallow grab samples or confirmatory sampling in excavations that are < 1m.

TROWEL 	▪ Trowel is in good condition with no noticeable defects. ▪ Trowel is made of non-reactive and non-leachable materials which are compatible with the chemical constituents at the site e.g., stainless steel. ▪ Decontamination equipment is present to decontaminate between samples. ▪ Only shallow samples shall be obtained using a trowel (<1ft). Ideal for stockpile or surface grab sampling.
HAND AUGER 	▪ Hand auger is in good condition with no noticeable defects. ▪ Decontamination equipment is present to decontaminate between samples. ▪ Preferred depth of sample is achievable with hand auger extension poles and sampling device (i.e. < 2 m). Ideal for shallow borehole drilling or subsurface grab samples. *NOTE: the sample collection device on the auger is dependent on the soil to be sampled.*
POLYETHYLENE LINER 	▪ Sample can be obtained from a direct push drill rig mentioned above. ▪ Sample to be collected by a licensed driller, who will provide the sample to Grounded, post sample collection. ▪ A new liner is used for each sample collected. ▪ Liner shall only be opened by the driller to prevent injury to Grounded staff. *NOTE: sharp edges may be present along cut liner edges, be aware.* ▪ The sample shall be collected away or upwind of fuel-powered equipment (e.g., drill rigs, excavators, backhoes, etc.) and upwind of other site activities (e.g., purging, sampling, decontamination) that could influence the sample.
SHELBY TUBE 	▪ Sample can be obtained from a conventional drill rig mentioned above. ▪ Typically used for geotechnical sampling (e.g., porosity, permeability) of undisturbed soils. ▪ Once material is sampled, the tube is: capped or sealed (to maintain the sample in its relatively undisturbed state), labelled with the sample name, orientation of the sample (e.g., top and bottom), depth interval and shipped to the appropriate geotechnical laboratory.

DRILLING TECHNIQUES	TO CONSIDER
ROTARY	
SOLID STEM AUGERS 	PROS: ▪ Good for drilling in cohesive soils ▪ Does not require use of drilling fluids ▪ Minimal drilling cuttings generated ▪ Fast production rate ▪ Can be completed with direct push, conventional and some limited access drill rigs CONS: ▪ Unconsolidated soils cause issues for sampling and well installs
HOLLOW STEM AUGER 	PROS: ▪ Good for unconsolidated soils ▪ Allows for good sand pack around wells ▪ Does not require use of drilling fluids ▪ Can be completed with conventional and some direct push drill rigs CONS: ▪ Slower production rate ▪ Increased soil cuttings generated
SLURRY SUPPORTED (e.g., mud, bentonite, grout, polymer) 	PROS: ▪ Ability to sample a wide range of soil conditions ▪ Completed with conventional drill rigs CONS: ▪ Management of drilling fluid ▪ Slower rate of production

PERCUSSION (aka air rotary) 	PROS: ▪ Ability to sample a wide range of soil conditions ▪ Fast production ▪ Cleans borehole ▪ Completed with conventional drill rigs CONS: ▪ Samples become disturbed
VIBRATORY (aka Sonic) 	PROS: ▪ Ability to sample a wide range of soil / bedrock conditions ▪ Does not require use of drilling fluids ▪ Ability for continuous sampling ▪ Large sample volumes CONS: ▪ Hourly rates ($300+ / hour)

SOIL SAMPLING

Reference relevant SOP to start.

Obtain Sample

- Push or drive one of the above-mentioned pieces of equipment into the soil to the desired sampling depth.
- Then withdraw the equipment opening the sample (where appropriate) and collect the sample safely changing nitrile gloves between each sample.
- Proceed to document the following in the site-specific field book:
    - Date, time, location
    - Weather conditions and temperature
    - Field staff
    - Sampling equipment used, including refusal if encountered (e.g., on concrete)
    - Depth interval through which the sampler was advanced
    - Blow counts (if using a split spoon sampler)
    - Sample recovery (e.g., 75% or 20 of 60 cm) (where applicable)
    - Describe the soil using the preferred soil classification system (e.g., MIT)
    - Describe any markings / staining's / odours or debris noted in the recovered sample including depth intervals
- Where additional soil is required to provide sufficient sample volume, repeat the above steps taking care to ensure that the same depth interval is collected during the resampling. *NOTE: consider using core catchers if sample recovery is poor during drilling.*

SAMPLE CONTAINERS

Sample containers are dependent on the proposed laboratory analysis as well as the specific laboratory. It is prudent to understand what parameters are to be analyzed to ensure appropriate sample containers are available. Sample containers include:

SAMPLE CONTAINER	SPECIAL CONSIDERATIONS
PLASTIC CONTAINER 	▪ Plastic containers may / may not react with certain contaminants. ▪ The container size is dependent on the proposed analysis. ▪ Generally, for geotechnical not environmental purposes.
GLASS CONTAINER 	▪ Glass containers may / may not react with certain contaminants. ▪ Dependent on the proposed laboratory analysis, the containers may be clear or amber coloured. ▪ The container size is dependent on the proposed analysis. ▪ The container will or must contain a Teflon ® liner if volatile analysis is intended.
METHANOL VIALS 	▪ Used for volatile sampling and analysis. ▪ Vial is filled with a predetermined volume of methanol as recorded on the vial and linked through the sample label (e.g., barcode). ▪ Vial is filled with a select portion of soil (usually ~5 grams) using a laboratory provided sample retrieve (e.g., syringe, TerraCore ®). ▪ Ensure when filling out the sample label the barcode is not covered. ▪ For volatile sampling a glass container must also be submitted with each sample.

RESEALABLE BAGS 	▪ Used for quick grab samples, shale samples for excess soil, and geotechnical samples. ▪ Usually used to collect samples for volatile pre-screening using a PID or CGD. These results are used for determining “worst case” soil samples for analysis. ▪ NOT to be submitted for laboratory analysis.
PLASTIC PAIL 	▪ Used when large volumes of soil are to be analyzed (usually for geotechnical purposes). ▪ Exercise proper lifting techniques when moving / transporting the pail.
PROCTOR BAGS 	▪ Used when large volumes of soil are to be analyzed (usually for geotechnical purposes). ▪ Exercise proper lifting techniques when moving / transporting the pail.

PARAMETERS	TRIAGE

METALS & INORGANICS (M&I)

	▪ **General lab requirements** = 1 x 250 mL jar.
	▪ Avoid sampling material with aggregate.
	▪ Submit worst case sample (e.g., most debris in fill).
	▪ If fill material encountered, submit native samples for vertical delineation.
	▪ O.Reg. 153/04 requires soil samples for pH at:
	  ○ <1.5 m below ground surface.
	  ○ >1.5 m below ground surface.

POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)  	▪ **General lab requirements** = 1 x 120 mL jar. ▪ Avoid sampling material with asphalt. ▪ Submit worst case sample (e.g., most debris in fill). ▪ If fill material encountered, submit native samples for vertical delineation. ▪ PAHs include by-products of incomplete combustion. If ash/cinders encountered, analyze for PAHs.
POLYCHLORINATED BIPHENYLS (PCBs) 	▪ **General lab requirements** = 1 x 120 mL jar. ▪ Submit worst case sample (e.g., black staining). ▪ If fill material encountered, submit native samples for vertical delineation. However, PCBs are generally not mobile, and any impacts are contained to the upper limit (either fill or native). ▪ Sample from fill material as well; worst-case sample by appearance.

PETROLEUM HYDROCARBONS (PHCs)
&
VOLATILE ORGANIC COMPOUND (VOCs)
 
	▪ **General lab requirements** = 1-2 40 mL methanol vials x 120 mL jar.
	▪ Odourous and stained soils should be analyzed for PHCs and VOCs.
	▪ Generally, sweet/solvent smell (VOCs), petroleum smell (PHCs).
	▪ Submit worst case sample (e.g., odour, black staining, highest CGD or PID reading).
	▪ Concerns around water table, remember:
	  ○ PHCs generally float.
	  ○ VOCs generally sink.

VOLATILE ORGANIC COMPOUND SAMPLING

Analytical soil samples for VOC analysis should be collected promptly after the sample has been collected to avoid loss of constituents to the atmosphere. Transfer the soil from the portion of the soil core to be sampled (usually the area where the highest PID or CGD readings were observed) directly into the sample containers, do not homogenize soils for VOC analysis. To reduce volatilization the generally accepted method includes placing a portion of the soil into either a methanol preserved vial using a syringe / TerraCore ® sampler or into an Encore ® sampler. In addition, soil is also placed in a jar for moisture analysis. Note the sample containers are dependent on the selected laboratory.

SOIL HEADSPACE ANALYSIS

Collect soil samples for field-based headspace analysis, if required as part of the project specific work plan, after collecting the VOC sample. First, examine the soil and remove large aggregate (e.g., cobble), organic matter (e.g., roots, grass and woody material) and any other debris. Transfer the soil from the portion of the soil core to be sampled and place in a heavy-duty resealable bag and seal it. Label the sample indicating location, depth and date. Shake the sample vigorously for approximately 15 seconds to disaggregate the sample and expose as much surface area of the soil as possible (to release VOCs to the atmosphere within the bag). If necessary, warm the sample to room temperature (20˚C) by placing the bag in a heated room or vehicle. This step is critical when the ambient temperature is below 0˚C.

The VOCs, if present will volatilize into the sealed bag. Allow the bag to stand (to achieve equilibrium) for approximately 15 minutes. Carefully open the bag slightly and place the tip of the CGD / PID into the opening. Do not insert the tip of the probe into the soil material and avoid uptake of water droplets. Allow the CGD / PID to equilibrate and record the highest TCV / TOV measurement(s) noted. Erratic TCV / TOV responses may result from high organic vapour concentrations or elevated headspace moisture. If these conditions exist, qualify the headspace data in the field book. It is also important to record the ambient temperature, humidity and whether moisture was present in the plastic bag.

SEMI- AND NON-VOLATILE ANALYTICAL SAMPLE COLLECTION

Collect remaining organic samples and then inorganic samples in the following order of volatilization sensitivity:

- Extractable organics, petroleum hydrocarbons and oil & grease
- Metals
- Inorganic nonmetallic and physical and aggregate properties
- Microbiological samples
- Radionuclides

HOMOGENOUS SAMPLES

If homogenization is required, mix the soils (using stainless steel bowls and spoons or other appropriate equipment) to a homogenous particle size and texture. Transfer the soils from the sampler or mixing bowl to the sample container using decontaminated or dedicated stainless steel spoon or spatula.

Discrete Sampling

When sampling for volatiles, discrete sampling shall be completed. Discrete sampling involves sampling from a certain point at a certain location (e.g., methanol vials, encore samplers, etc.).

Composite Soil Samples

If approved by the regulatory agency and specified in the project-specific work plan, composite soil samples can be collected to minimize the total number of analytical samples. Composite samples consist of equal aliquots (same sample size) of soil from each location being sampled (e.g., from each borehole or from multiple areas of a soil pile), by mixing the soil to a homogenous particle size and texture using new or decontaminated stainless-steel bowls and a stainless-steel spoon or trowel. Transfer the contents to the appropriate laboratory supplied sample container using a stainless-steel spoon.

FIELD DUPLICATES

Duplicates are used for QA/QC purposes and generally assess analytical precision, field precision and sample homogeneity. Field duplicates are prepared in the field and are submitted as "blind" duplicates to the lab. Field duplicates shall be collected same time and location, under the same conditions and submitted in separate containers. Where possible, duplicates should be homogenized (e.g., mixed). **NOTE: volatile samples CANNOT be homogenized.**

Approach:

1. Determine naming convention (e.g., Dup 1, etc.). Some Project Managers having specific naming conventions.
2. Collect equal aliquots from the same location into each the original and duplicate sample container.
3. Document in field notes original sample location along with duplicate and ID.
4. Duplicates shall be taken at a rate of 10% per parameter group per media (e.g., soil, sediment, groundwater) unless communicated otherwise by the Project Manager.

STANDARD OPERATING PROCEDURE
CASING VOLUME CALCULATION -

1 Introduction

Casing volume is an important calculation to determine the volume of water required to be removed from the monitoring well during well development or prior to sampling. The casing volume is defined as the volume of water within the case of the monitoring well. It does not include the volume of water withing the sand pack of the monitoring well. The volumetric units for a casing volume are typically specified in liters (L).

Typical monitoring well diameters:

- 1” (25 mm or 2.5 cm)
- 1.25” (32 mm or 3.2 cm)
- 1.5” (38 mm or 3.8 cm)
- 2” (50 mm or 5 cm)
- 4” (100 mm or 10 cm)
- 6” (150 mm or 15 cm)

2 Equipment Required

- Interface or Water Level Meter
- Field Notebook and/or Field Sheets
- Well Keys or Tools Required
- Access Agreements (if required)

3 Procedure

1. Coordinate with project manager and clients, as required, for site access
2. Review monitoring well locations
3. Review borehole logs and determine monitoring well depths and well screen locations
4. Perform a general site survey in accordance with any applicable site-specific health and safety plans
5. Identify and mark all monitoring wells

6. Open the monitoring well and take water level and well depth reading. Record them the field notebook
7. Take a second water level reading to confirm the initial reading. The readings should be within ± 1 cm. If the second reading is not within this range take additional readings. Record them the field notebook
8. Calculate the height of water column
    a. Well Depth – Water Level = Height of Water Column (h)
    b. Record in the field notebook
9. Determine the diameter of the monitoring well and record in the field notebook
10. Calculate the volume of water within the monitoring well by the following formula. Make sure you record the calculation in the field notebook and that units are consistent

- h – Height of Water Column in cm
- d – Diameter of monitoring well in cm
- V – casing volume in L

$$V = \pi * h * 0.001 * (d/2)^2$$

STANDARD OPERATING PROCEDURE
USING A FIELD FILTER

1 Introduction

Filtering groundwater can vary by jurisdiction, but generally, groundwater samples are allowed to pass through a 0.45 micron pore size filter. The filter removes suspended particulate matter from the groundwater that may contain or carry contaminants. It is deemed that these potential contaminants are not likely part of the normal groundwater flow but are rather a by-product of establishing wells and sampling groundwater.

2 Equipment Required

- Field filter (Disposable – Single Use)
- Interface meter *or* water level meter
- Waterra
- Foot valve
- Waterra cutters
- Well keys/Ratchet set/Allen keys
- Deionized or distilled water/Alconox (for cleaning probe in between wells)
- Field notebook/field forms
- Nitrile gloves
- Batteries (9 V)
- First Aid Kit
- Garbage bags/plastic bags
- Lab sample bottles, cooler(s), and ice

3 Procedure

3.1 Before Going to Site

1. Review monitoring well locations and BH logs to determine well screen depths and screened strata
2. Carry out site specific health and safety plan
3. Coordinate site access with PM/client

3.2 On-Site Activities

When using a field filter be certain to **only filter parameters that require filtration**. **Metals, Mercury and Chromium VI** are sensitive to turbidity in groundwater and need filtration. Other parameters may be filtered on an as needed basis at the discretion of the Project Manager. **Note: PAHs are the one parameter group that may not be field filtered.**

Filters are single use and should be disposed of after sampling each well.

1. After groundwater stabilization has been achieved in the well (refer to GW Stabilization [Hanna Pen or YSI] SOP), attach the filter to the top of the sampling discharge line (i.e., top of waterra)
2. Collect filtered groundwater samples for appropriate parameters from well using the sampling discharge line and lab sample bottles (refer to GW Sampling SOP)
3. When sampling is complete, remove used filter from sampling discharge line. Dispose used filter and any associated disposable items

4 References

1) Maxim Environmental. Environmental Sampling. Retrieved from: https://www.maximenvironmental.com/sales-environmental-sampling
2) Waterra Pumps Limited. Ultraclean Waterra 0.45 Micron Groundwater Filters For Metals Analysis. Retrieved from: https://waterra.com/waterra-0-45-micron-groundwater-filters/
3) "Protocol for Analytical Methods Used in the Assessment of Properties Properties under Part XV.1 of the *Environmental Protection Act* and Excess Soil Quality" Ministry of the Environment, Laboratory Services Branch, amended February 19, 2021. Retrieved from: https://www.ontario.ca/page/updated-protocol-analytical-methods-used-assessment-properties-under-part-xv1-environmental

STANDARD OPERATING PROCEDURE
USING A HANNA METER (GW STABILIZATION)

1 Introduction

Hanna multiparameter meters (e.g., HI 98129 pocket meter) can be used to measure water quality parameters including temperature, pH, specific conductivity, and/or total dissolved solids prior to groundwater sampling to ensure that the samples are truly representative of fresh formation groundwater.

2 Equipment Required

- Interface meter *or* water level meter
- Waterra/Foot valve *or* bailer
- Waterra cutters (if necessary)
- Well keys/Ratchet set/Allen keys
- Lab sample bottle/jar (no preservatives)
- Deionized or distilled water/Alconox (for cleaning probe in between wells)
- Field notebook/field forms
- Nitrile gloves
- Batteries (9 V)
- First Aid Kit
- Garbage bags/plastic bags

3 Procedure

3.1 Before Going to Site

1. Review monitoring well locations and BH logs to determine well screen depths and screened strata
2. Carry out site specific health and safety plan
3. Coordinate site access with PM/client
4. Calibrate Hanna Meter instrument (refer to instruction manual)

3.2 On-Site Activities

Groundwater stabilization within a monitoring well needs to be completed within 24 hours prior to taking a groundwater quality sample from the well (not required for sewer use sampling).

1. Take water level and well depth measurements from the well (refer to Water Levels SOP)
2. Calculate casing volume of the well (refer to Casing Volume SOP)
3. Purge one (1) casing volume from the well at a time using either a bailer or waterra with a foot valve
4. For every one (1) casing volume purged from the well, fill your empty sample jar/bottle with purge water
5. Take off probe cap, turn Hanna meter on, and place the probe in the jar/bottle filled with groundwater
6. Wait until the water quality measurements have stabilized on the Hanna meter prior to recording measurements, as indicated by when the stability indicator (hour glass/stopwatch symbol) disappears on the screen
7. Measure and record groundwater stabilization parameters (temperature, pH, and conductivity) for each casing volume purged until stabilization criteria is met (refer to table below) **OR** the well goes dry
    a. A minimum of three (3) sets of purged casing volumes and associated stabilization parameter measurements are required to achieve groundwater stabilization in the well

Stabilization Guide:			
Parameter	Temperature	pH	Electrical Conductivity
Units	°C	pH Units	µS or mS (circle one)
Tolerance	± 0.2	± 0.1	± 3% of value

    b. Between each set of measurements, make sure to dispose of the groundwater in the sample bottle/jar and rinse it out with latest purge water
    c. Note that temperature readings are susceptible to change due to exterior weather conditions (e.g., sunlight) when working outside
8. Record total volume of groundwater purged once stabilization has been achieved
9. Turn off probe, decontaminate the probe with Alconox and deionized water, and place probe cap back on the probe

4 References

1) Maxim Environmental. Rentals; HI 98129 Pocket Meter. Retrieved from: https://www.maximenvironmental.com/product/r-hi98129.
2) Hanna Instruments Inc. Multiparameter Testers. Retrieved from: https://hannacan.com/hi98129-ph-ec-tds-tester.html

STANDARD OPERATING PROCEDURE
LASER LEVEL SURVEYING

1 Introduction

Grounded uses typically uses a rotary laser level to survey elevations.

All field staff are trained in the use of the laser level. It is the Engineer's responsibility to ensure that field staff are fully trained prior to any field work. Training involves an hour of in-office training, followed by completing the loop around the building. Once the loop is done, and closed to 5± mm, the survey is uploaded to the server and provides a training record.

2 Equipment Required



- Laser Level and Receiver (big yellow case) – includes extra batteries
- Tripod/Legs (there are two options: silver or yellow)
- Grade Rod (an extendable metre stick)
- Paper/field book for recording survey measurements

If you change batteries in anything, confirm that we have more. If not, inform the appropriate person that they need to be ordered, or replace them yourself.

Laser level takes four '**D**' batteries.

- Rechargeable batteries = 45 mins of rotational time
- Alkaline batteries = 90 mins of rotational time
- Always have a spare set of batteries when going to the field
- Operating time may be reduced by:
    - frequent leveling,
    - wind & vibration,
    - extreme temperatures,
    - old rechargeable batteries, and
    - using different kinds of batteries in the 4 battery set.

Receiver takes two '**AA**' batteries.

The unit is most sensitive to **temperature changes!** Don't leave it in the car to be exposed to extreme heat. Avoid dropping the unit - but if it is dropped an accuracy test should be conducted to check the leveling accuracy. It's mostly waterproof and can be used in the rain.

Do not use harsh chemicals on the unit. If it is dirty, it can be cleaned with a wet smooth cloth. The glass may be cleaned with cotton swabs.

The accuracy of the unit may be effected by extreme temperature, rain, wind influence, or dirt/water on the glass.

Safety Notes:

- Class 2 laser product - **do not stare into the laser beam**, even at a great distance
- Do not remove warning labels from the unit
- Always operate the unit in a way that prevents the laser beam from getting into people's eyes
- Don't remove anything from the device (glass, outer protective cover, etc.). Removal must only be performed by trained factory professionals. Note: This does not apply to the battery cover which must be removed to switch the batteries.

3 Procedure

The Benchmark (BM) is included in the Field Package. It is good to choose a landmark easy to locate in the field and one that is accessible, such as a manhole cover. We typically use the COSINE website to find public benchmarks.

Record the following information in your field book before starting the survey:

- Project name
- Project number
- Date & time
- Description of what the BM is (e.g. City of Toronto Vertical BM, or off survey, etc.) and general location.
- The BM datum (read this off the COSINE report, or the site survey, or ask the PM).

Create the following table to record your surveyed station starting with the BM:

Station	Height of Laser Level (m)	Back Site (m)	Intermediate Site (m)	Fore Site (m)	Elevation (m)
CoT BM					100.000

***NOTE: all measurements reported to 0.001 m
BM info entered is an example.

- Set up the legs/tripod in a location where the BM and at least one of the “stations” are visible (the more the better).

- Screw the laser level securely onto the stand from the underside of the tripod.
- Reposition the laser level & tripod to be on even ground. Push all the legs of the tripod into the ground (if sod) to further stabilize the unit from moving during the survey.
- Press the power button (red) to turn on the laser level. This will initialize the self-leveling procedure of the laser level, after which the laser will turn on and start spinning. If the laser level can't self-level, it won't start spinning and hopefully it makes an alarming beeping noise.
- Attach the Receiver to the flat side of the grade rod.

Before starting, refer to the rules at the bottom of this SOP.

The first step is to find the **Height of Instrument elevation** of the laser level.

- Position the rod with the attached receiver on the chosen BM.
- With the receiver facing towards the laser, slide it up/down rod until it pickup the laser (it will start beeping and arrows will indicate whether the receiver needs to be moved up/down to the exact elevation of the laser.
- Once a solid beep sound and line appears across the receiver screen, fasten the receive in place

The measurement is read at the top of the grey receiver holder, which is in line with the digital bar that the receiver shows. Read the elevation of the receiver from the rods, and record it as the Back Site of you BM (see below)

STN	HI	BS	IS	FS	ELEV
BM		2.000			100.000

- Using the Back Site (BS) measured from the BM, and the elevation of the BM itself, you can back calculate the Height of Instrument (HI) of the laser level. The HI is the elevation of the laser level plane, which is now used to measure elevations of all subsequent Stations until the laser level is moved (i.e. on the other side of a hill, around the corner of a building, etc)
- ***HI = ELEVATION + BS → we are going up, so we add***

STN	HI	BS	IS	FS	ELEV
BM	102.000	2.000			100.000

- You can now go to any Station (e.g. borehole) within sight of the current position of the laser level and measure Intermediate Sites (IS). For example, stand the rod onto a borehole location and adjust receiver until it is in line with the laser. Record this height as the intermediate site (IS) for the station and continue to the next Station and repeat.
- ***ELEVATION = HI – IS → we are going down, so we subtract***

STN	HI	BS	IS	FS	ELEV
BM	102.000	2.000			100.000
BH1	102.000			1.500	100.500
BH2	102.000			1.250	100.750

Now that you've surveyed all Stations within sight of the current position of the laser level, the laser level may need to be moved to a new location to be within sight of other Stations onsite. To complete this move, you need to have a fore site (FS) – this has to be a station which is in direct line of sight of the current location and desired new location of the laser level. For example: BH3 is going to be your FS location or TURNING POINT, to move the laser level to location #2. Take the height of the Station as you have for all those before but record the height in the column labelled "fore site".

ELEVATION = HI – FS → we are going down, so we subtract

STN	HI	BS	IS	FS	ELEV
BM	102.000	2.000			100.000
BH1	102.000			1.500	100.500
BH2	102.000			1.250	100.750
BH3	102.000		1.000		101.000

Now you can move the laser level to a new position. We typically call these "Turning Points" (e.g. TP1). Do not confuse this with Test Pit (also TPs). If you have test pits, you may want to say "P1" for these instead, or some other name.

Re-measure the laser height on the turning point (i.e. BH3) and record it as the Back Site of the same station.

STN	HI	BS	IS	FS	ELEV
BM	102.000	2.000			100.000
BH1				1.500	100.500
BH2				1.250	100.750
BH3			1.000		101.000
TP1/P1/Susan	102.250	1.250			101.000

- Use the calculated elevation of the turning point elevation and the Back Site (BS) to determine the new height of the (i.e. 101.000m + 1.250m = 102.250 m)
- The new height of the laser level (height of instrument = HI) is used to measure the elevation of the remaining stations within site of its location. The laser level can be moved as many times as necessary to capture all stations onsite.
- **TO END THE SURVEY** – using however many Turning Points you need, survey back to the original benchmark and resurvey it. This is called "closing the loop". Your measurement of the original benchmark should be within about ±5 mm of its real elevation. If you close the loop to within ±5 mm, that means there were no math/field errors and the survey is good! If it's within ±10 mm, it might be ok, ask the PM. If it's within ± 20 mm or more, you made a mistake, and the survey has to be done again.

STN	HI	BS	IS	FS	ELEV
BM	102.000	2.000			100.000
BH1				1.500	100.500
BH2				1.250	100.750
BH3			1.000		101.000
TP1/P1/Susan	102.250	1.250			101.000 (BH3)
BH4				1.500	100.750
Susan2	101.750	1.000			100.750 (BH4)
BM CLOSE			1.751		99.999
					DELTA = 0.001 OK

Because borehole elevations are among the most critical measurements that we make, it is very important to do them right. To that end:

Always close the loop – Regardless of whether or are using turning points or not, always end a loop by re-measuring the benchmark you started with. This tells us that the instrument didn't move, that it wasn't kicked, that it was calibrated properly, that the tech knew what they were doing. If we haven't closed the loop, we haven't done a survey!

Always check the accuracy – After you close the loop, check to see how far off the elevation of the benchmark is from what you started with. Ideally you close with a delta under 5 mm. If you don't move the level (i.e. no turning points) you should close with a delta of ±2 mm.

Always upload your very valuable survey – Whether it's done in your field book or on a separate sheet of paper, ensure that it gets scanned and saved to the server ASAP to avoid a redo.

Fully and completely record measurements – Every survey has to be reviewed for accuracy and quality, so the survey must be written exactly as it is shown above and with enough detail and clarity that anyone can check the measurements to confirm that it was done properly. If another person can't check and confirm your survey (no measurements, loop not closed, benchmark unclear, handwriting messy, etc.) it will have to be completely redone.

In these cases, it is always helpful to assume that the person checking your survey is a Principal with no knowledge of the details of the project (this is not an arbitrate assumption – all field surveys will be checked as part of report review). So make sure you include enough detail that it can be checked!

STANDARD OPERATING PROCEDURE
MEASURING A WATER LEVEL

1 Introduction

An electrical sounder (interface meter/water level meter) is one of several different methods used to determine the depth of water in a well. It consists of a weighted probe suspended on stranded insulated wire with marked tape/line that is fitted on a reel with a grounding cable attached. Current that is supplied by a 9 V battery flows through the circuit when the end of the probe contacts a water surface, activating a loud buzzer and a light. The depth of the water level can then be determined by taking a reading from the tape at the top of the well. The use of an interface meter or water level meter is widely considered to be the most practical method used for measuring well water levels in the field.

2 Equipment Required

- Interface meter *or* water level meter (Solinst Operating instructions attached)
    - Interface meter (IM) – detects both water & free product
    - Water level meter (WLM) – detects water only
- Deionized or distilled water/Alconox (for cleaning probe between wells)
- Batteries (9V)
- Nitrile gloves
- Field notebook/field forms
- Well keys/Ratchet set/Allen keys
- Wire coat hanger or bucket handle (for pulling waterra from well casing)
- Garbage bags
- First Aid Kit

3 Procedure

3.1 Before Going to Site

1. Review monitoring well locations and BH logs to determine well screen depths and screened strata
2. Carry out site specific health and safety plan
3. Coordinate site access with PM/client

3.2 On-Site Activities

When measuring a water level/well depth, be certain to establish a measuring reference point (typically top of well casing or top of pipe). Document the distance between ground surface and the measuring point (aka stick-up). All water level measurements should be conducted before removing/adding any water in the well or pulling waterra from the well.

1. Remove well lock or well cap casing, and well pipe cap (e.g., J-plug)
2. Using notebook/field forms, note project name and number, well ID, date, time, and weather
3. Test probe by activating the test (ON/OFF) switch
    a. If loud buzzer/light is not activated during the test, replace the 9V battery in the WLM/IM
4. Measure the stick-up/depth of the measuring point
5. Attach grounding cable clamp to well flushmount/monument (needs to be conductive material)
6. Take a water level reading from the measuring point by slowly lowering probe into the well until contact with the water surface is indicated. Repeat measurement one (1) minute later to ensure initial reading is static
    a. When using IM, also measure the depth/thickness of any free product encountered, which includes both light (floating) non-aqueous phase liquids (LNAPL), and dense (sinking) non-aqueous phase liquids (DNAPL). If free product is encountered, repeat depth measurements to verify results
        i. When a product interface is detected, the IM will have a steady light and buzzer tone
        ii. When a water interface is detected, the IM will have an intermittent light and buzzer tone
    b. If no water is detected within the well, note that the well is “dry”
7. Turn off probe and measure the well depth by slowly lowering the probe into the well until the tip of the probe is touching the bottom of the well (point right after the tape/line is no longer taught from the weight of the probe)
    a. Be sure that probe is not stuck along the side of the well pipe prior to reading the measurement. Repeat well depth measurement to verify results
8. Remove probe slowly from well while being careful that tape is not scraping sides of the well pipe
9. Remove grounding cable from grounding point (e.g., flushmount, monument)
10. Place/tighten well cap (e.g., J-plug) back on top of well pipe
11. Secure flushmount/monument using appropriate tooling or close lock
12. Decontaminate the probe/tape with Alconox and deionized or distilled water. Place probe in holder and tighten reel once complete

4 References

1) ASTM International. Designation: D4750-87 (Reapproved 2001); Standard Test Method for Determining Subsurface Liquid Levels in a Borehole or Monitoring Well (Observation Well).

STANDARD OPERATING PROCEDURE
WELL DEVELOPMENT

1 Introduction

Monitoring well development is necessary to ensure that complete hydraulic connection is made – and maintained – between the well and the aquifer material surrounding the well screen and filter pack. The appropriate development method should be selected for each project based on the circumstances, lithology, objectives, and requirements of that project. If drilling muds are used during well installation, well development should occur within 24 hours following well installation so that the drilling mud does not settle in the well screen. Generally, a phased process is used to develop wells, starting with a gentle bailing phase to remove sand, followed by a surging phase, and then a pumping phase after the well begins to clear up.

2 Equipment Required

- Interface meter *or* water level meter
- Waterra
- Foot valves
- Surge blocks
- Waterra cutters
- Well keys/Ratchet set/Allen keys
- Deionized or distilled water/Alconox (for cleaning probe in between wells)
- Field notebook/field forms
- Nitrile gloves
- Graduated bucket
- Garbage bags
- Batteries (9 V)
- First Aid Kit
- Purge Drums (as necessary for contaminated sites)

3 Procedure

3.1 Before Going to Site

1. Review monitoring well locations and BH logs to determine well screen depths and screened strata
2. Carry out site specific health and safety plan
3. Coordinate site access with PM/client

3.2 On-Site Activities

When developing a well, be aware of the drilling method used (e.g., drilling mud) and the local soil conditions (potential recharge rate) as this can dramatically influence the well development methods.

1. Remove well lock or well cap casing, and well pipe cap (e.g., J-plug).
2. Using notebook/field forms, note project name and number, well ID, date, time, and weather.
3. Record water level, well depth, and well stick-up (refer to water level SOP).
4. Calculate casing volume of well (refer to casing volume SOP).
5. Use the calculated casing volume to determine total volume of water to be purged:
    - For initial (new) well development, when **FLUID** is used, purge ten (10) casing volumes, or purge until the well is dry.
    - For initial (new) well development, when **NO FLUID**, purge five (5) casing volumes, or purge until the well is dry.
    - For well development of **a previous consultants' well**, purge five (5) casing volumes, or purge until the well is dry.
    - For **subsequent well development**, purge three (3) casing volumes for redevelopment, or purge until the well is dry.
6. Attach foot valve to the bottom end of the waterra. Slowly lower the bottom of the waterra into the well. Once the foot valve touches the bottom, leave extra waterra above ground so you can pump water from the well.
7. If surging the monitoring well is required, complete the following:
    - Remove the waterra from the well. Remove foot valve from bottom of the waterra.
    - Slide a surge block onto the bottom of the waterra. Reconnect the foot valve to the waterra. Fasten the surge block to the foot valve.
    - Lower the waterra into the monitoring well until well screen is reached. You should be able to feel the well screen with the surge block attached.
    - Lift the waterra up and down along the screen for 5 to10 minutes.
8. Remove the pre-determined number of casing volumes from the monitoring well or until the well is dry (*see step 5*).
    - If well goes dry during development: remove waterra from well, drain remaining fluid in waterra, and reinstall waterra in the well.
9. Record field observations regarding the purge water. (i.e., total volume purged, clarity, appearance, odour)
10. Discard purge water into drums if contamination of the property is known or suspected (discuss with PM). Otherwise, dispose of water at least 5 metres away from the well in a best management approach and as noted in the field package.
11. See Groundwater Stabilization SOP before collecting groundwater samples from wells.

STANDARD OPERATING PROCEDURE
BLADDER PUMP SAMPLING

1 Introduction

Low flow purging and sampling involves extracting groundwater at rates comparable to ambient groundwater flow (typically less than 500 mL/min), so that the drawdown of the water level is minimized, and the mixing of stagnant water, with water from the screened intake area in a well is reduced.

Stabilization parameters of the purged water are monitored before a sample is taken, thus low flow methods facilitate equilibrium with the surrounding formation water and produces samples that are representative of the formation water.

Bladder pump sampling causes the least amount of alteration in sample integrity as compared to other sample retrieval methods. Fluid enters the pump through the fluid inlet check valve at the bottom of the pump body via hydrostatic pressure. The pump MUST be submerged to operate. The bladder then fills with fluid. Compressed air enters the space between the bladder and the interior of the pump housing. The intake check valve closes, and the discharge check valve (top) opens. Compressed air squeezes the bladder, pushing the fluid to the surface. The discharge check valve prevents back flow from the discharge tubing. Air does not contact the sample. The bladder prevents contact between the pump driven air and the sample. All wetted pump parts are 316 Grade stainless steel to ensure the purity of the sample is maintained. Water comes into contact with the inside of the bladder (Teflon) and sample tubing. One bladder (Teflon) is dedicated to each well and the pump is cleaned thoroughly after every well.

2 Equipment Required

- Interface or water level meter
- Batteries (9 V)
- Bladder Pump (appropriate size for MW)
- Controller Unit and Battery with charger
- Bladders (enough for all MWs)
- Waterra (appropriate size for air/water connections)
- Hanna Pen/YSI/Horiba
- Lab Sampling Bottles and Ice
- String/Rope for safety loop
- Deionized or distilled water/Alconox (cleaning probe between wells)
- Nitrile gloves
- Stopwatch

- Bucket
- Graduated Cylinder
- Field notebook/field forms
- Well keys/Ratchet set/Allen keys
- Garbage bags
- First Aid Kit
- Field package and access agreements as needed

3 Procedure

3.1 Before Going to Site

1. Review monitoring well locations and BH logs to determine well depth and screen locations
2. Carry out site specific health and safety plan
3. Coordinate site access with PM/client

3.2 On-Site Activities

When sampling using a bladder pump be sure to place the pump in the middle to upper screen. This ensures formation water is entering the pump and reducing the mix of stagnant water into the sample

1. Decontaminate all non disposable field equipment with Alconox and deionized or distilled water
2. Remove lock or well cap casing and casing cap
3. Using notebook/field forms to note project #, well ID, date and time
4. Record water level (refer to water level SOP)
5. Start sampling at the least contaminated monitoring well based on previous sampling events or olfactory/visual observations during well development
6. Before deploying the sampling pump, secure a safety cable from an anchoring point at or near the wellhead to the top of the pump
7. Attach waterra (usually ¼") to the air line fitting and water (discharge) fitting.
8. Carefully lower the bladder pump into the well using the reverse coil method to avoid kinking, until the desired depth is achieved.
9. Attach power supply and turn on the pump. Purge well until field parameters have stabilized. (refer to Hanna Meter – GW Stabilization SOP).

   *Note - When field parameters are measured record the measurements, the elapsed time, the flow rate and the water level in the monitoring well. Do not allow the pump to run dry. If the pumping rate exceeds the well recharge rate, decrease the fill/discharge time. Only lower the pump further into the well screen if needed, and continue pumping

- If the calculated purge volume is small, the measurements should be taken frequently to provide enough measurements to evaluate stability (every 15-30 seconds). If the purge volume is large, measurements taken every 3-5 minutes may be sufficient
- Stabilization occurs when:
    - Temperature is within (3%)
    - pH (+/- 0.1 unit)
    - Conductivity is within (3%)

10. Collect and dispose of purge water as specified in the site specific sampling plan
11. Assemble the appropriate lab supplied bottles
12. Turn pump on, increase the cycle time and reduce the pressure to the minimum that will allow the sample to come to the surface and not induce significant drawdown
13. Collect samples in the lab supplied bottles
14. Cap the sample bottle tightly and place labeled sample container in cooler
15. On completion, remove the pump/tubing from the well and clean the pump thoroughly with de-ionized water and alconox solution prior to moving to the next well
16. Replace the tubing and bladder with new dedicated tubing and bladder for each well
17. Package samples and complete necessary paperwork
18. Decontaminate all non disposable field equipment with de-ionized water and alconox solution prior to moving to the next well
19. Replace the well cap and secure casing

4 References

Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.

APPENDIX D



GROUNDED ENGINEERING

Date Started : Mar 7, 2023
Position : E: 597841, N: 4797701 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 101

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *LC rig*

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

elev depth (m)	description	graphic log	number	type	SPT N-value
82.6	**GROUND SURFACE**				
	50mm **ASPHALT**				
	FILL, sand, some gravel, trace to some silt, compact, brown, moist ...at 0.4 m, trace asphalt fragments		1	SS	18
			2	SS	24
			3	SS	26
			4	SS	22
79.6 3.0	...at 3.0 m, inferred concrete obstruction		5	SS	50 / 50mm
			6	SS	65 / 275mm
79.1 3.5	**CLAYEY SILT**, trace shale fragments, trace sand, trace gravel, hard, reddish brown, moist (GLACIAL TILL)				
	QUEENSTON FORMATION (See rock core log for details)		2	RUN	
			3	RUN	
			4	RUN	
			5	RUN	
			6	RUN	
			7	RUN	
			8	RUN	
			9	RUN	

depth scale (m): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

well details

elevation (m): 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

5.0 m (Elev. 77.6 m): transition to sound bedrock

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS3: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs
3.0m: auger grinding and sampler bouncing with practical refusal, re-located borehole and re-drilled to depth, resumed sampling
3.3m: Run 1 encountered inferred caved materials overlapping with the SS6 interval

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

(continued next page)

Date Started : Mar 7, 2023
Position : E: 597841, N: 4797701 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 101

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : LC rig

rock coring (HQ) OD=96 mm

elev depth (m)	description	graphic log	number	type	SPT N-value
	(continued)				
	QUEENSTON FORMATION (See rock core log for details) *(continued)*		9	RUN	
			10	RUN	
			11	RUN	
			12	RUN	
			13	RUN	
			14	RUN	
			15	RUN	
			16	RUN	
			17	RUN	
54.8 27.8	**END OF BOREHOLE**				

depth scale (m): 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27

well details

elevation (m): 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57, 56, 55

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
△ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

Contained drill water upon completion of drilling. Unstabilized water level and cave not measured.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	10.2	72.4
Apr 3, 2023	9.9	72.7
Jun 9, 2023	10.1	72.5
Dec 10, 2024	17.2	65.4

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

GROUNDED ENGINEERING

Date Started : Mar 9, 2023
Position : E: 597865, N: 4797712 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 102

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : LC rig

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

elev depth (m)	description	graphic log	number	type	SPT N-value	depth scale (m)	elevation (m)	lab data and comments
82.4	**GROUND SURFACE**					0	82	
	50mm **ASPHALT**		1	SS	18			
	FILL, sand, some gravel, trace to some silt, moderate petroleum hydrocarbon odour, compact, brown, moist ...at 0.4 m, trace asphalt fragments		2	SS	15	1	81	SS2: BTEX, PAHs, PHCs, VOCs
	...at 1.5 m, dense		3A	SS	33	2	80	3A: EC/SAR, H-Ms, Metals, ORPs, pH
80.3 2.1	**CLAYEY SILT**, some gravel, trace sand, moderate petroleum hydrocarbon odour, hard, reddish brown, moist (GLACIAL TILL) ...at 2.6 m, layer of silt and sand glacail till, some gravel, some clay, dense, reddish brown, moist		3B					12 37 40 11
			4	SS	30	3	79	SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs
79.2 3.2			5	SS	50 / 125mm			**3.0m:** auger grinding
	QUEENSTON FORMATION (See rock core log for details)		1	RUN		4	78	**4.2 m (Elev. 78.2 m): transition to sound bedrock**
			2	RUN		5	77	
			3	RUN		6	76	
			4	RUN		7	75	
			5	RUN		8	74	
			6	RUN		9	73	
			7	RUN		10	72	RUN7: BTEX, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs
			8	RUN		11	71	
			9	RUN		12	70	
						13	69	
						14	68	

well details

undrained shear strength (kPa): unconfined, field vane, pocket penetrometer, Lab Vane; 40 80 120 160

SPT N-values (bpf): dynamic cone; 10 20 30 40

headspace vapour (ppm): hexane, isobutylene, methane; 100 200 300

moisture / plasticity: PL MC LL; 10 20 30

unstabilized water level

grain size distribution (%) (MIT): GR SA SI CL

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

(continued next page)

GROUNDED ENGINEERING

Date Started : Mar 9, 2023
Position : E: 597865, N: 4797712 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 102

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *LC rig*
rock coring (HQ) OD=96 mm

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
	(continued)				
	QUEENSTON FORMATION (See rock core log for details) *(continued)*		9	RUN	
			10	RUN	
			11	RUN	
			12	RUN	
			13	RUN	
			14	RUN	
			15	RUN	
			16	RUN	
56.1 26.3	**END OF BOREHOLE**				

depth scale (m): 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26
well details
elevation (m): 67, 66, 65, 64, 63, 62, 61, 60, 59, 58, 57

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
△ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments
grain size distribution (%) (MIT)
GR SA SI CL

Contained drill water upon completion of drilling. Unstabilized water level and cave not measured.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	dry	n/a
Apr 3, 2023	dry	n/a
May 5, 2023	dry	n/a
Jun 9, 2023	dry	n/a

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

BOREHOLE LOG 103

Date Started : Mar 15, 2023
Position : E: 597887, N: 4797709 (UTM 17T)
Elev. Datum : Geodetic

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : LC rig

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

elev / depth (m)	description	graphic log	number	type	SPT N-value
82.3	**GROUND SURFACE**				
82.1 / 0.2	150mm **TOPSOIL**				
	FILL, sand, trace silt, trace rock fragments, trace rootlets, loose, blackish brown, moist		1	SS	5
81.5 / 0.8	**SAND**, some silt, trace gravel, loose to compact, brown, moist to wet		2	SS	6
			3A	SS	11
80.3 / 2.0	**CLAYEY SILT**, trace sand, trace gravel, very stiff, reddish brown, moist (GLACIAL TILL)		3B		
			4	SS	20
	...at 3.0 m, layer of sandy silt glacial till, some clay, some gravel, some shale fragments, hard, reddish brown, moist		5	SS	66 / 175mm
78.9 / 3.4			1	RUN	
	QUEENSTON FORMATION (See rock core log for details)		2	RUN	
			3	RUN	
			4	RUN	
			5	RUN	
			6	RUN	
			7	RUN	
			8	RUN	
			9	RUN	

depth scale (m): 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

well details

elevation (m): 82 81 80 79 78 77 76 75 74 73 72 71 70 69 68

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

3.9 m (Elev. 78.4 m): transition to sound bedrock

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS2: BTEX, PAHs, PHCs, VOCs

3A: EC/SAR, H-Ms, Metals, ORPs, pH

10 26 45 19

SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

file: 22-282 - gint.gpj

Tech : CSH | **PM** : NN | **Rev** : NN

(continued next page)

GROUNDED ENGINEERING

Date Started : Mar 15, 2023
Position : E: 597887, N: 4797709 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 103

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : LC rig

rock coring (HQ) OD=96 mm

elev depth (m)	description (continued)	graphic log	number	type	SPT N-value
	QUEENSTON FORMATION (See rock core log for details) *(continued)*		9	RUN	
			10	RUN	
			11	RUN	
			12	RUN	
			13	RUN	
			14	RUN	
			15	RUN	
			16	RUN	
			17	RUN	
54.4					
27.9	**END OF BOREHOLE**				

depth scale (m): 15 16 17 18 19 20 21 22 23 24 25 26 27

well details

elevation (m): 67 66 65 64 63 62 61 60 59 58 57 56 55

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
△ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

RUN12: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

Borehole was filled with drill water upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	10.4	71.9
Apr 3, 2023	10.1	72.2
May 5, 2023	9.0	73.3
Jun 9, 2023	9.2	73.1
Dec 10, 2024	17.7	64.6

file: 22-282 - gint.gpj

Tech : CSH | **PM** : NN | **Rev** : NN

GROUNDED ENGINEERING

Date Started : Mar 6, 2023
Position : E: 597872, N: 4797741 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 104

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

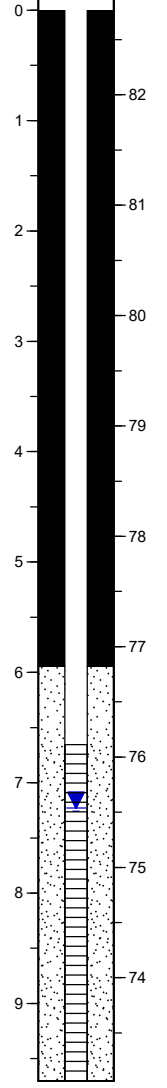
drill method : LC rig

elev depth (m)	description	graphic log	number	type	SPT N-value
82.8	**GROUND SURFACE**				
	FILL, silt, some sand, some gravel, some rootlets, trace clay, trace topsoil inclusions, loose, brownish black, moist		1	SS	6
	...at 0.2 m, sand fill, some gravel, trace silt, brown with oxidation staining, moist to wet		2A	SS	7
	...at 0.9 m, no topsoil inclusions, mottled brownish grey		2B		
81.3					
1.5	**CLAYEY SILT**, sandy, trace gravel, hard, reddish brown, moist (GLACIAL TILL)		3	SS	43
			4	SS	45
			5	SS	32
	...at 3.0 m, sandy silt, clayey, trace gravel, trace shale fragments		1	RUN	
78.9					
3.9	**QUEENSTON FORMATION** (See rock core log for details)		2	RUN	
			3	RUN	
			4	RUN	
			5	RUN	
73.1					
9.7					

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

depth scale (m) | well details | elevation (m)

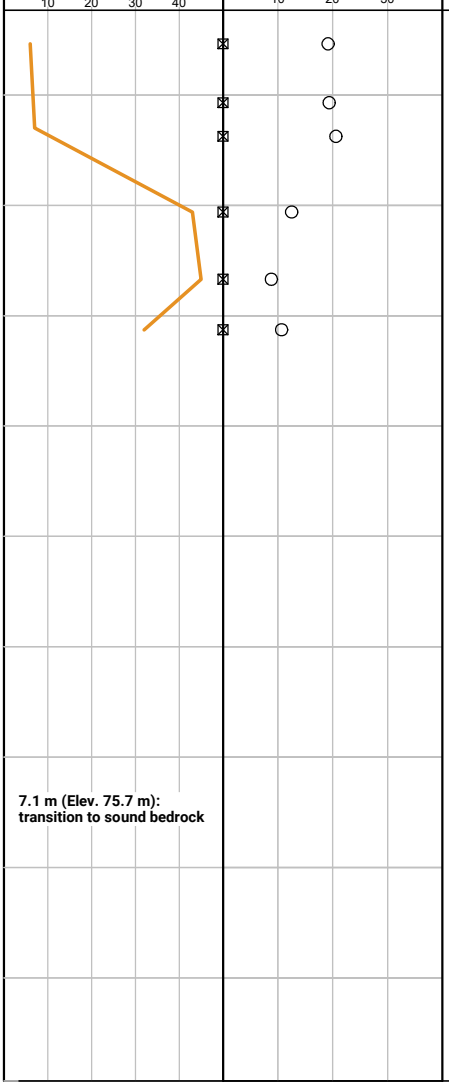


undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
△ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30



unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS1: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

SS3: BTEX, PAHs, PHCs, VOCs
1.8m: auger grinding
5 27 48 20

SS4: EC/SAR, H-Ms, Metals, ORPs, pH
2.6m: auger grinding with refusal, and Run 1 encountered inferred caved materials overlapping with the SS4 and SS5 intervals

END OF BOREHOLE

Contained drill water upon completion of drilling. Unstabilized water level and cave not measured.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	5.4	77.4
Apr 3, 2023	5.5	77.3
May 5, 2023	5.7	77.1
Jun 9, 2023	5.8	77.0
Dec 10, 2024	7.2	75.6

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

Date Started : Mar 14, 2023
Position : E: 597849, N: 4797707 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 105

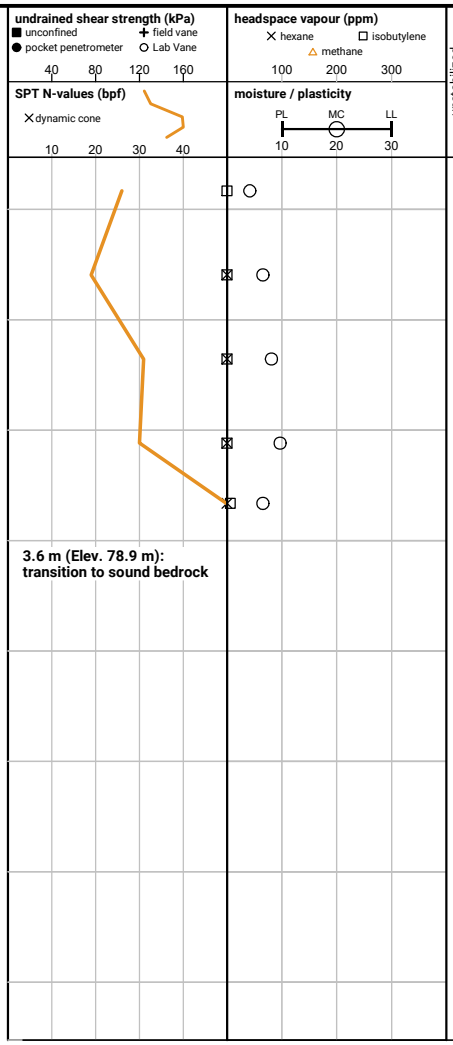
File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *LC rig*

elev depth (m)	description	number	type	SPT N-value
82.5	**GROUND SURFACE**			
	50mm **ASPHALT**	1	SS	26
	FILL, gravelly sand, trace to some silt, faint petroleum hydrocarbon odour, compact to dense, brownish grey, moist	2	SS	19
		3	SS	31
80.2 2.3	**CLAYEY SILT**, some gravel, trace sand, hard, brownish red, moist (GLACIAL TILL)	4	SS	30
79.3 3.2	...at 3.1 m, some shale fragments, faint petroleum hydrocarbon odour	5	SS	50 / 25mm
		1	RUN	
	QUEENSTON FORMATION (See rock core log for details)	2	RUN	
		3	RUN	
		4	RUN	
74.5 8.0	**END OF BOREHOLE**			

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm



unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS2: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

3.2m: sampler bouncing

RUN3: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

Water level and cave not measured upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	dry	n/a
Apr 3, 2023	dry	n/a
May 5, 2023	dry	n/a
Jun 9, 2023	dry	n/a
Dec 10, 2024	dry	n/a

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

BOREHOLE LOG 106

Date Started : Mar 13, 2023
Position : E: 597852, N: 4797695 (UTM 17T)
Elev. Datum : Geodetic

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

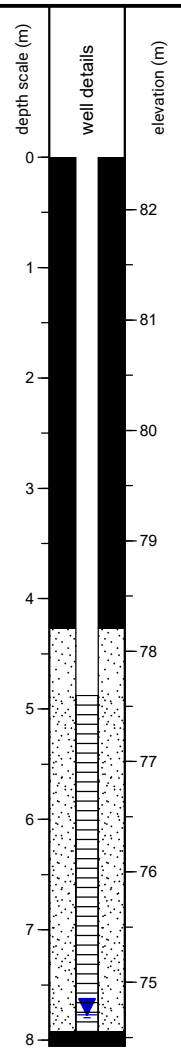
drill method : *LC rig*

elev depth (m)	description	graphic log	number	type	SPT N-value
82.5	**GROUND SURFACE**				
	40mm **ASPHALT**		1	SS	22
	FILL, sand, some gravel, trace to some silt, moderate petroleum hydrocarbon odour, compact to dense, brown, moist		2	SS	22
			3	SS	31
80.2 / 2.3	**CLAYEY SILT**, some gravel, trace sand, trace shale fragments, very stiff to hard, brownish red, moist (GLACIAL TILL)		4	SS	29
			5	SS	50 / 125mm
79.2 / 3.3	...at 3.2 m, layer of gravelly sand, trace silt, moderate petroleum hydrocarbon odour, very dense, grey, wet		1	RUN	
	QUEENSTON FORMATION (See rock core log for details)		2	RUN	
			3	RUN	
			4	RUN	
74.4 / 8.1	**END OF BOREHOLE**				

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

depth scale (m) / well details / elevation (m)

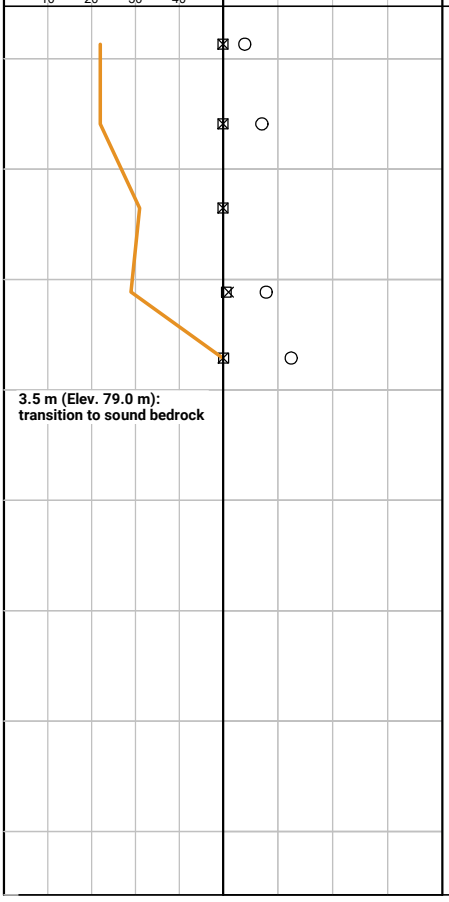


undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30



3.5 m (Elev. 79.0 m): transition to sound bedrock

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS3: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

2.4m: auger grinding

SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs
2.9m: auger grinding
3.0m: Run 1 encountered inferred caved materials overlapping with the SS5 interval

Contained drill water upon completion of drilling. Unstabilized water level and cave not measured.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	7.8	74.7
Apr 3, 2023	7.8	74.7
May 5, 2023	7.8	74.7
Jun 9, 2023	7.8	74.7

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

BOREHOLE LOG 107

Date Started : Mar 13, 2023
Position : E: 597857, N: 4797703 (UTM 17T)
Elev. Datum : Geodetic

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *LC rig*

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
82.3	**GROUND SURFACE**				
	65mm **ASPHALT**				
	FILL, sand, some gravel, trace silt, faint petroleum hydrocarbon odour, compact to dense, brown, moist		1	SS	28
			2	SS	19
			3	SS	33
80.0					
2.3	**CLAYEY SILT**, some gravel, trace sand, trace shale fragments, hard, reddish brown, moist (GLACIAL TILL)		4	SS	33
79.1			5	SS	50 / 150mm
3.2	**QUEENSTON FORMATION** (See rock core log for details)		1	RUN	
			2	RUN	
			3	RUN	
			4	RUN	
			5	RUN	
72.8					
9.5	**END OF BOREHOLE**				

hollow stem augers OD=215 mm

rock coring (HQ) OD=96 mm

depth scale (m): 0 1 2 3 4 5 6 7 8 9

well details

elevation (m): 82 81 80 79 78 77 76 75 74 73

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

3.6 m (Elev. 78.7 m): transition to sound bedrock

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS3: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs

2.4m: auger grinding

SS4: BTEX, EC/SAR, H-Ms, Metals, ORPs, PAHs, pH, PHCs, VOCs
3.0m: sampler bouncing
3.1m: Run 1 encountered inferred caved materials overlapping with the SS5 interval

Water level and cave not measured upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Mar 20, 2023	8.9	73.4
Apr 3, 2023	8.7	73.6
May 5, 2023	8.6	73.7
Jun 9, 2023	8.7	73.6
Dec 10, 2024	9.1	73.2

file: 22-282 - gint.gpj

Tech : CSH/MW | **PM** : NN | **Rev** : NN

BOREHOLE LOG 201

Date Started : Jun 25, 2024
Position : E: 597846, N: 4797704 (UTM 17T)
Elev. Datum : Geodetic

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : Geoprobe

elev depth (m)	description	graphic log	number	type	SPT N-value
82.5	**GROUND SURFACE**				
82.1	425mm **AGGREGATE**		1	DP	
0.4	**FILL**, gravelly sand, trace silt, trace rock fragments, brown, moist		2	DP	
			3	DP	
79.7			4A	DP	
2.8			4B		
79.5	**CLAYEY SILT**, some gravel, trace sand, some rock fragments, brownish red, moist (GLACIAL TILL)		5	DP	
3.0					
79.3	**SHALE FRAGMENTS**, trace gravel, red, moist				
3.2					

direct push OD=50 mm

solid stem augers OD=150 mm

depth scale (m): 0 1 2 3 4 5 6 7 8 9 10

elevation (m): 82 81 80 79 78 77 76 75 74 73

well details

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
△ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP2: H-Ms, Metals, ORPs

4A: BTEX, PHCs

END OF BOREHOLE

Borehole was dry and caved to 9.9 m below ground surface upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Jul 3, 2024	dry	n/a
Jul 11, 2024	9.4	73.1
Jul 27, 2024	dry	n/a
Dec 10, 2024	9.1	73.4

file: 22-282 - gint.gpj

Tech : MW | **PM** : LL | **Rev** : FS

GROUNDED ENGINEERING

Date Started : Jun 25, 2024
Position : E: 597876, N: 4797705 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 202

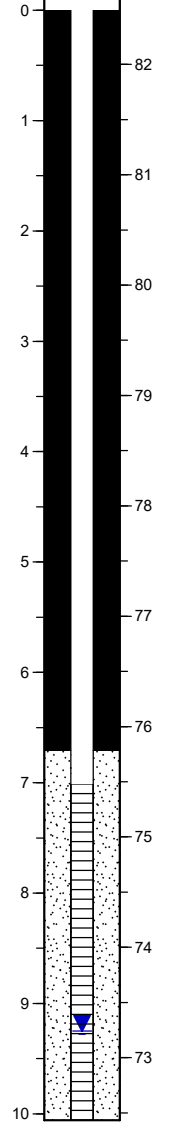
File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

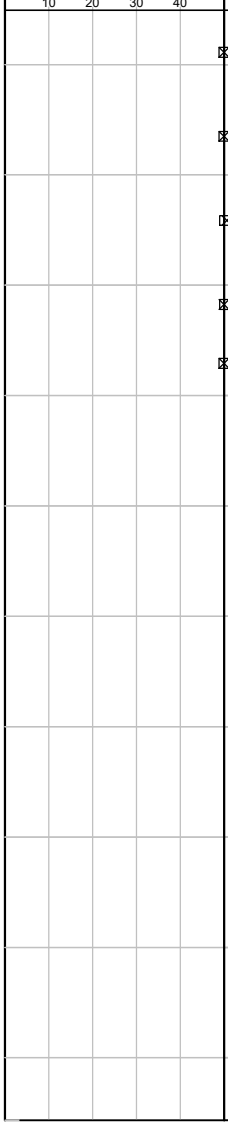
drill method : *Geoprobe*

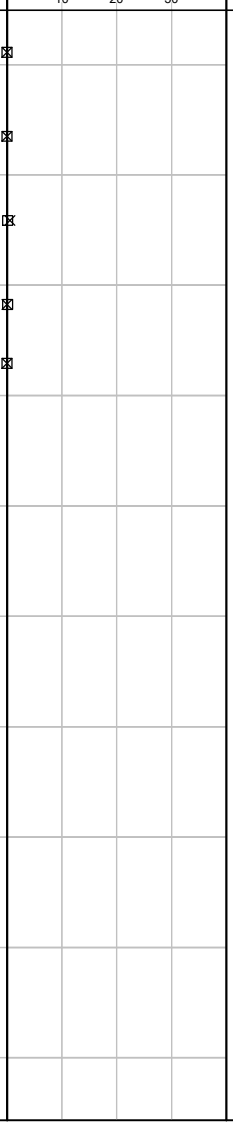
elev depth (m)	description	graphic log	number	type	SPT N-value
82.5	**GROUND SURFACE**				
	125mm **TOPSOIL**				
	FILL, sand, some silt, trace to some gravel, trace rootlets, light brown, moist		1	DP	
			2	DP	
81.0					
1.5	**CLAYEY SILT**, some gravel, trace sand, reddish brown, moist (GLACIAL TILL)		3	DP	
			4	DP	
79.1			5	DP	
3.4					

direct push OD=50 mm

solid stem augers OD=150 mm







unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP2: H-Ms, Metals, ORPs

END OF BOREHOLE

Borehole was dry upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

date	depth (m)	elevation (m)
Jul 3, 2024	9.0	73.5
Jul 11, 2024	8.9	73.6
Jul 24, 2024	8.9	73.6
Dec 10, 2024	9.3	73.2

file: 22-282 - gint.gpj

Tech : MW | **PM** : LL | **Rev** : FS

GROUNDED ENGINEERING

Date Started : Jun 26, 2024
Position : E: 597884, N: 4797729 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 203

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *Geoprobe*

direct push OD=50 mm

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
82.6	**GROUND SURFACE**				
82.4 / 0.2	100mm **TOPSOIL** 75mm **AGGREGATE**		1	DP	
	FILL, sand, some silt, trace gravel, brown, moist		2	DP	
	...at 1.2 m, reddish brown		3	DP	
80.8 / 1.8	**CLAYEY SILT**, trace sand, trace gravel, reddish brown, moist (GLACIAL TILL)		4	DP	
			5	DP	
79.6 / 3.0	**END OF BOREHOLE**				

depth scale (m): 0, 1, 2, 3

well details

elevation (m): 82, 81, 80

undrained shear strength (kPa)
■ unconfined ● pocket penetrometer + field vane ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP5: BTEX, PHCs

Unstabilized water level measured at 1.2 m below ground surface upon completion of drilling.

GROUNDED ENGINEERING

Date Started : Jun 26, 2024
Position : E: 597878, N: 4797737 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 204

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *Geoprobe*

direct push OD=50 mm

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
82.7	**GROUND SURFACE**				
82.5 / 0.2	175mm **TOPSOIL**				
	FILL, sand, some silt, trace gravel, reddish brown, moist		1	DP	
			2	DP	
	...at 1.2 m, trace clay pockets		3A	DP	
81.2 / 1.5	**CLAYEY SILT**, trace sand, trace gravel, brownish grey, moist (GLACIAL TILL)		3B		
	...at 1.8 m, reddish brown		4	DP	
			5	DP	
79.7 / 3.0	**END OF BOREHOLE**				

Borehole was dry upon completion of drilling.

depth scale (m): 0, 1, 2, 3

well details

elevation (m): 82, 81, 80

undrained shear strength (kPa)
■ unconfined + field vane
● pocket penetrometer ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP5: BTEX, PHCs

file: 22-282 - gint.gpj

Tech : MW | **PM** : LL | **Rev** : FS

GROUNDED ENGINEERING

Date Started : Jun 26, 2024
Position : E: 597868, N: 4797737 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 205

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *Geoprobe*

direct push OD=50 mm

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
82.9	**GROUND SURFACE**				
82.7 / 0.2	230mm **TOPSOIL**				
82.6 / 0.3	25mm **AGGREGATE**		1	DP	
	FILL, sand, some gravel, trace silt, brown, moist ...at 0.6 m, trace organics		2	DP	
81.7 / 1.2	**CLAYEY SILT**, some gravel, trace sand, brownish grey, moist (GLACIAL TILL) ...at 1.8 m, reddish brown		3	DP	
80.6 / 2.3			4	DP	

depth scale (m): 0, 1, 2

well details

elevation (m): 82, 81

undrained shear strength (kPa)
■ unconfined ● pocket penetrometer + field vane ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP2: H-Ms, Metals, ORPs

DP4: BTEX, PHCs

END OF BOREHOLE

Borehole was dry upon completion of drilling.

file: 22-282 - gint.gpj

Tech : MW | **PM** : LL | **Rev** : FS

GROUNDED ENGINEERING

Date Started : Jun 26, 2024
Position : E: 597858, N: 4797727 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 206

File No. : 22-282 **Project** : 2072 Lakeshore Road, Burlington, ON **Client** : Trinity Point

drill method : *Direct Push*

elev depth (m)	description	graphic log	samples: number	samples: type	samples: SPT N-value
82.9	**GROUND SURFACE**				
82.7 / 0.2	125mm **TOPSOIL**				
	25mm **AGGREGATE**		1	DP	
	FILL, silt, trace to some sand, trace gravel, brown, moist		2	DP	
81.7 / 1.2	...at 0.6 m, reddish light brown				
	SAND, some silt, light brown, moist		3	DP	
81.1 / 1.8	**CLAYEY SILT**, some gravel, trace sand, reddish brown, moist (GLACIAL TILL)		4	DP	
			5	DP	
79.9 / 3.0	**END OF BOREHOLE**				

direct push OD=50 mm

depth scale (m): 0, 1, 2, 3

well details

elevation (m): 82, 81, 80

undrained shear strength (kPa)
■ unconfined ● pocket penetrometer + field vane ○ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene △ methane
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

DP3: H-Ms, Metals, ORPs

DP4: BTEX, PHCs

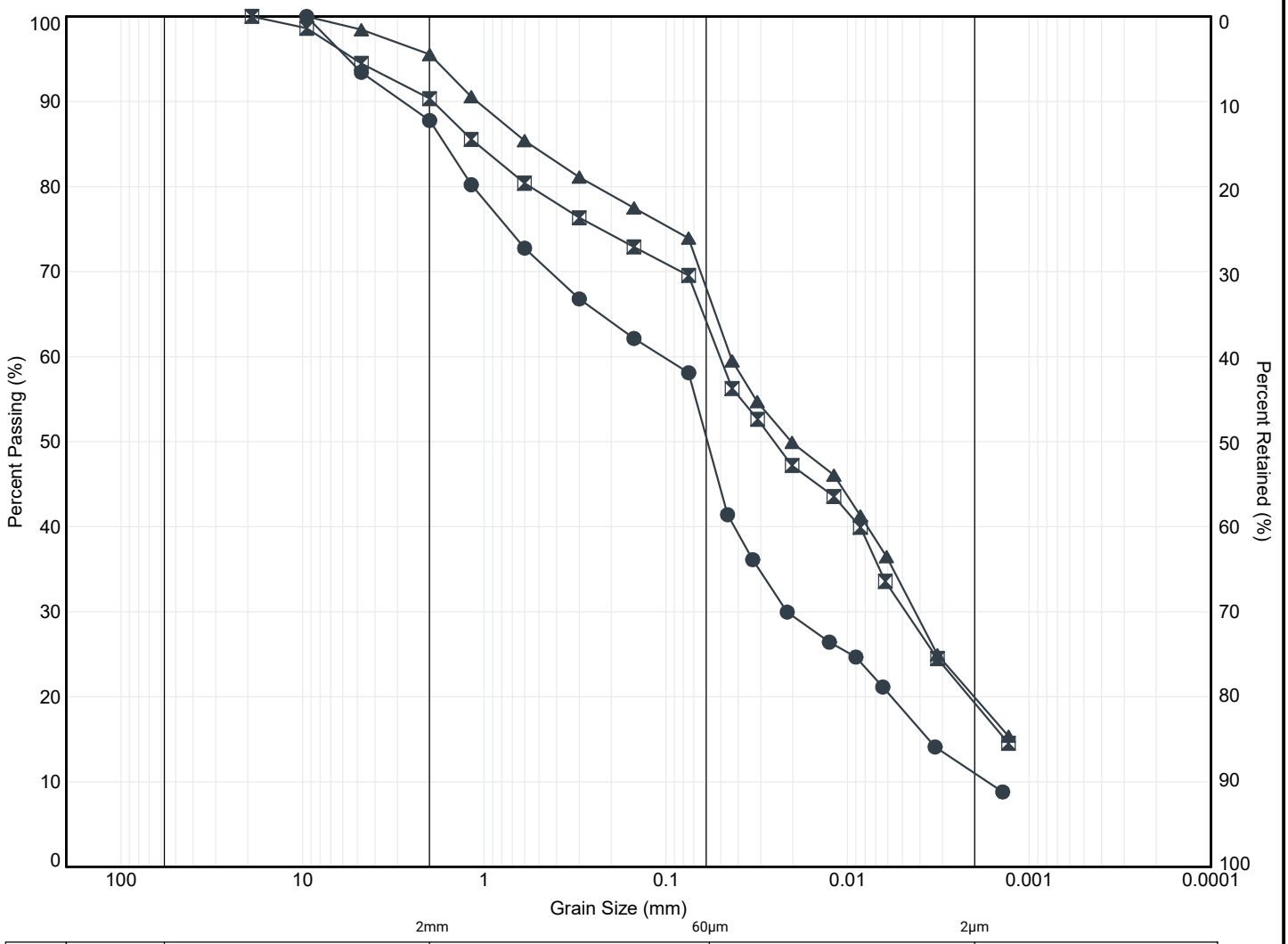
Unstabilized water level measured at 1.2 m below ground surface upon completion of drilling.

file: 22-282 - gint.gpj

Tech : MW | **PM** : LL | **Rev** : FS

APPENDIX E





MIT SYSTEM	COBBLES	GRAVEL			SAND			SILT	CLAY
		COARSE	MEDIUM	FINE	COARSE	MEDIUM	FINE		

MIT SYSTEM

	Borehole	Sample	Depth (m)	Elev. (m)	Gravel (%)	Sand (%)	Silt (%)	Clay (%)
●	**102**	SS4	2.6	79.8	12	37	40	11
⊠	**103**	SS4	2.6	79.8	10	26	45	19
▲	**104**	SS4	2.6	80.2	5	27	48	20

GROUNDED ENGINEERING

Title: **GRAIN SIZE DISTRIBUTION GLACIAL TILL**

File No.: **22-282**

file: 22-282 - gint.gpj

APPENDIX F



Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Your C.O.C. #: 923799-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/16
Report #: R7548627
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C367624
Received: 2023/03/09, 15:16

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	5	N/A	2023/03/14	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	5	2023/03/14	2023/03/15	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	6	N/A	2023/03/15		EPA 8260C m
Free (WAD) Cyanide	5	2023/03/13	2023/03/14	CAM SOP-00457	OMOE E3015 m
Conductivity	5	2023/03/14	2023/03/14	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	5	2023/03/13	2023/03/14	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	6	2023/03/13	2023/03/14	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	5	2023/03/14	2023/03/14	CAM SOP-00447	EPA 6020B m
Moisture	7	N/A	2023/03/11	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	5	2023/03/12	2023/03/13	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	5	2023/03/14	2023/03/14	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	5	N/A	2023/03/15	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	6	N/A	2023/03/14	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, MELCC, EPA, APHA.

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.

Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Your C.O.C. #: 923799-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/16
Report #: R7548627
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C367624
Received: 2023/03/09, 15:16

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VGD136		VGD137			VGD137		
Sampling Date			2023/03/06 18:30		2023/03/06 18:30			2023/03/06 18:30		
	UNITS	Criteria	BH104 SS1	QC Batch	DUP041	RDL	QC Batch	DUP041 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	0.70	8544279	0.65		8544279			
Inorganics										
Conductivity	mS/cm	0.7	0.44	8550727	0.36	0.002	8550727			
Available (CaCl2) pH	pH	-	7.54	8550740	7.57		8550790			
WAD Cyanide (Free)	ug/g	0.051	<0.01	8549026	<0.01	0.01	8549026			
Chromium (VI)	ug/g	8	<0.18	8548888	<0.18	0.18	8548888			
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	0.27	8550550	0.27	0.050	8550550			
Acid Extractable Antimony (Sb)	ug/g	7.5	0.44	8550409	0.44	0.20	8550409	0.39	0.20	8550409
Acid Extractable Arsenic (As)	ug/g	18	3.4	8550409	3.7	1.0	8550409	3.5	1.0	8550409
Acid Extractable Barium (Ba)	ug/g	390	46	8550409	52	0.50	8550409	49	0.50	8550409
Acid Extractable Beryllium (Be)	ug/g	4	0.34	8550409	0.35	0.20	8550409	0.35	0.20	8550409
Acid Extractable Boron (B)	ug/g	120	5.2	8550409	5.7	5.0	8550409	<5.0	5.0	8550409
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.27	8550409	0.35	0.10	8550409	0.28	0.10	8550409
Acid Extractable Chromium (Cr)	ug/g	160	36	8550409	49	1.0	8550409	46	1.0	8550409
Acid Extractable Cobalt (Co)	ug/g	22	5.1	8550409	5.5	0.10	8550409	5.1	0.10	8550409
Acid Extractable Copper (Cu)	ug/g	140	30	8550409	27	0.50	8550409	24	0.50	8550409
Acid Extractable Lead (Pb)	ug/g	120	31	8550409	36	1.0	8550409	33	1.0	8550409
Acid Extractable Molybdenum (Mo	ug/g	6.9	0.96	8550409	1.0	0.50	8550409	0.87	0.50	8550409
Acid Extractable Nickel (Ni)	ug/g	100	11	8550409	13	0.50	8550409	11	0.50	8550409
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	8550409	<0.50	0.50	8550409	<0.50	0.50	8550409
Acid Extractable Silver (Ag)	ug/g	20	0.50	8550409	0.56	0.20	8550409	0.67	0.20	8550409
Acid Extractable Thallium (Tl)	ug/g	1	0.071	8550409	0.083	0.050	8550409	0.066	0.050	8550409
Acid Extractable Uranium (U)	ug/g	23	0.44	8550409	0.47	0.050	8550409	0.45	0.050	8550409
Acid Extractable Vanadium (V)	ug/g	86	32	8550409	42	5.0	8550409	40	5.0	8550409
Acid Extractable Zinc (Zn)	ug/g	340	97	8550409	110	5.0	8550409	120	5.0	8550409
Acid Extractable Mercury (Hg)	ug/g	0.27	0.071	8550409	0.076	0.050	8550409	0.070	0.050	8550409

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VGD139		VGD140		VGD141		
Sampling Date			2023/03/06 18:30		2023/03/07 18:00		2023/03/07 18:00		
	UNITS	Criteria	BH104 SS4	QC Batch	BH101 SS3	QC Batch	BH101 SS4	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0	1.1	8544279	**17**	8544279	**16**		8544279
Inorganics									
Conductivity	mS/cm	0.7	0.39	8550727	**0.85**	8550727	**1.4**	0.002	8550727
Available (CaCl2) pH	pH	-	7.74	8550740	7.97	8550790	8.06		8550740
WAD Cyanide (Free)	ug/g	0.051	<0.01	8549034	<0.01	8549026	<0.01	0.01	8549026
Chromium (VI)	ug/g	8	<0.18	8549146	<0.18	8548888	<0.18	0.18	8548888
Metals									
Hot Water Ext. Boron (B)	ug/g	1.5	0.25	8550550	0.074	8550550	0.071	0.050	8550550
Acid Extractable Antimony (Sb)	ug/g	7.5	0.28	8550409	<0.20	8550409	0.22	0.20	8550409
Acid Extractable Arsenic (As)	ug/g	18	6.0	8550409	3.8	8550409	4.1	1.0	8550409
Acid Extractable Barium (Ba)	ug/g	390	140	8550409	16	8550409	20	0.50	8550409
Acid Extractable Beryllium (Be)	ug/g	4	0.64	8550409	<0.20	8550409	0.21	0.20	8550409
Acid Extractable Boron (B)	ug/g	120	14	8550409	8.1	8550409	7.7	5.0	8550409
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	8550409	**1.3**	8550409	**1.3**	0.10	8550409
Acid Extractable Chromium (Cr)	ug/g	160	22	8550409	7.6	8550409	9.2	1.0	8550409
Acid Extractable Cobalt (Co)	ug/g	22	11	8550409	3.7	8550409	3.9	0.10	8550409
Acid Extractable Copper (Cu)	ug/g	140	31	8550409	24	8550409	22	0.50	8550409
Acid Extractable Lead (Pb)	ug/g	120	9.9	8550409	120	8550409	120	1.0	8550409
Acid Extractable Molybdenum (Mo	ug/g	6.9	0.78	8550409	0.66	8550409	0.71	0.50	8550409
Acid Extractable Nickel (Ni)	ug/g	100	26	8550409	9.3	8550409	9.6	0.50	8550409
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	8550409	<0.50	8550409	<0.50	0.50	8550409
Acid Extractable Silver (Ag)	ug/g	20	<0.20	8550409	1.4	8550409	0.49	0.20	8550409
Acid Extractable Thallium (Tl)	ug/g	1	0.10	8550409	0.098	8550409	0.098	0.050	8550409
Acid Extractable Uranium (U)	ug/g	23	0.92	8550409	0.49	8550409	0.50	0.050	8550409
Acid Extractable Vanadium (V)	ug/g	86	31	8550409	14	8550409	15	5.0	8550409
Acid Extractable Zinc (Zn)	ug/g	340	58	8550409	**720**	8550409	**720**	5.0	8550409
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	8550409	<0.050	8550409	<0.050	0.050	8550409

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			VGD136	VGD137	VGD138	VGD140	VGD141		
Sampling Date			2023/03/06 18:30	2023/03/06 18:30	2023/03/06 18:30	2023/03/07 18:00	2023/03/07 18:00		
	UNITS	Criteria	BH104 SS1	DUP041	BH104 SS3	BH101 SS3	BH101 SS4	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	0.0071	8544072
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	7.9	0.013	0.012	<0.0050	<0.0050	<0.0050	0.0050	8548087
Acenaphthylene	ug/g	0.15	0.0065	0.0059	<0.0050	<0.0050	<0.0050	0.0050	8548087
Anthracene	ug/g	0.67	0.030	0.025	<0.0050	0.0090	<0.0050	0.0050	8548087
Benzo(a)anthracene	ug/g	0.5	0.18	0.13	<0.0050	0.018	<0.0050	0.0050	8548087
Benzo(a)pyrene	ug/g	0.3	0.19	0.15	<0.0050	0.019	<0.0050	0.0050	8548087
Benzo(b/j)fluoranthene	ug/g	0.78	0.22	0.19	<0.0050	0.026	<0.0050	0.0050	8548087
Benzo(g,h,i)perylene	ug/g	6.6	0.15	0.12	<0.0050	0.018	<0.0050	0.0050	8548087
Benzo(k)fluoranthene	ug/g	0.78	0.089	0.063	<0.0050	0.0082	<0.0050	0.0050	8548087
Chrysene	ug/g	7	0.16	0.12	<0.0050	0.018	<0.0050	0.0050	8548087
Dibenzo(a,h)anthracene	ug/g	0.1	0.028	0.022	<0.0050	<0.0050	<0.0050	0.0050	8548087
Fluoranthene	ug/g	0.69	0.41	0.34	0.0079	0.071	0.0057	0.0050	8548087
Fluorene	ug/g	62	0.013	0.0095	<0.0050	<0.0050	<0.0050	0.0050	8548087
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.16	0.13	<0.0050	0.017	<0.0050	0.0050	8548087
1-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8548087
2-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8548087
Naphthalene	ug/g	0.6	0.0075	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8548087
Phenanthrene	ug/g	6.2	0.16	0.14	<0.0050	0.046	<0.0050	0.0050	8548087
Pyrene	ug/g	78	0.33	0.28	0.0084	0.055	0.0050	0.0050	8548087
Surrogate Recovery (%)									
D10-Anthracene	%	-	99	100	112	107	121		8548087
D14-Terphenyl (FS)	%	-	95	91	100	97	102		8548087
D8-Acenaphthylene	%	-	93	92	97	90	98		8548087

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VGD136	VGD137	VGD138	VGD140	VGD141		
Sampling Date			2023/03/06 18:30	2023/03/06 18:30	2023/03/06 18:30	2023/03/07 18:00	2023/03/07 18:00		
	UNITS	Criteria	BH104 SS1	DUP041	BH104 SS3	BH101 SS3	BH101 SS4	RDL	QC Batch
Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	8544240
Volatile Organics									
Acetone (2-Propanone)	ug/g	16	0.85	1.4	<0.49	<0.49	<0.49	0.49	8545870
Benzene	ug/g	0.21	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	8545870
Bromodichloromethane	ug/g	1.5	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Bromoform	ug/g	0.27	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Bromomethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Chlorobenzene	ug/g	2.4	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Chloroform	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Dibromochloromethane	ug/g	2.3	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,2-Dichlorobenzene	ug/g	1.2	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,3-Dichlorobenzene	ug/g	4.8	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,4-Dichlorobenzene	ug/g	0.083	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,1-Dichloroethane	ug/g	0.47	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	8545870
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	8545870
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Ethylbenzene	ug/g	1.1	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8545870
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Hexane	ug/g	2.8	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Methylene Chloride(Dichloromethane	ug/g	0.1	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	8545870
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	8545870
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	8545870

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VGD136	VGD137	VGD138	VGD140	VGD141		
Sampling Date			2023/03/06 18:30	2023/03/06 18:30	2023/03/06 18:30	2023/03/07 18:00	2023/03/07 18:00		
	UNITS	Criteria	BH104 SS1	DUP041	BH104 SS3	BH101 SS3	BH101 SS4	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Styrene	ug/g	0.7	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Tetrachloroethylene	ug/g	0.28	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Toluene	ug/g	2.3	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8545870
1,1,1-Trichloroethane	ug/g	0.38	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Trichloroethylene	ug/g	0.061	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	8545870
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	8545870
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	<0.019	<0.019	<0.019	0.019	8545870
p+m-Xylene	ug/g	-	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8545870
o-Xylene	ug/g	-	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8545870
Total Xylenes	ug/g	3.1	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	8545870
F1 (C6-C10)	ug/g	55	<10	<10	<10	<10	<10	10	8545870
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	<10	<10	<10	10	8545870
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	<10	<10	<10	10	8549405
F3 (C16-C34 Hydrocarbons)	ug/g	300	100	77	**340**	<50	<50	50	8549405
F4 (C34-C50 Hydrocarbons)	ug/g	2800	120	98	400	<50	<50	50	8549405
Reached Baseline at C50	ug/g	-	Yes	Yes	Yes	Yes	Yes		8549405
Surrogate Recovery (%)									
o-Terphenyl	%	-	85	95	77	68	83		8549405
4-Bromofluorobenzene	%	-	95	96	95	94	95		8545870
D10-o-Xylene	%	-	106	107	88	105	101		8545870
D4-1,2-Dichloroethane	%	-	102	103	100	102	101		8545870
D8-Toluene	%	-	100	100	101	99	102		8545870

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

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

Bureau Veritas ID			VGD142		
Sampling Date			2023/03/07 18:00		
	UNITS	Criteria	DUP031	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	8544240
Volatile Organics					
Acetone (2-Propanone)	ug/g	16	<0.49	0.49	8545870
Benzene	ug/g	0.21	<0.0060	0.0060	8545870
Bromodichloromethane	ug/g	1.5	<0.040	0.040	8545870
Bromoform	ug/g	0.27	<0.040	0.040	8545870
Bromomethane	ug/g	0.05	<0.040	0.040	8545870
Carbon Tetrachloride	ug/g	0.05	<0.040	0.040	8545870
Chlorobenzene	ug/g	2.4	<0.040	0.040	8545870
Chloroform	ug/g	0.05	<0.040	0.040	8545870
Dibromochloromethane	ug/g	2.3	<0.040	0.040	8545870
1,2-Dichlorobenzene	ug/g	1.2	<0.040	0.040	8545870
1,3-Dichlorobenzene	ug/g	4.8	<0.040	0.040	8545870
1,4-Dichlorobenzene	ug/g	0.083	<0.040	0.040	8545870
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	0.040	8545870
1,1-Dichloroethane	ug/g	0.47	<0.040	0.040	8545870
1,2-Dichloroethane	ug/g	0.05	<0.049	0.049	8545870
1,1-Dichloroethylene	ug/g	0.05	<0.040	0.040	8545870
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	0.040	8545870
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	0.040	8545870
1,2-Dichloropropane	ug/g	0.05	<0.040	0.040	8545870
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	8545870
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	8545870
Ethylbenzene	ug/g	1.1	<0.010	0.010	8545870
Ethylene Dibromide	ug/g	0.05	<0.040	0.040	8545870
Hexane	ug/g	2.8	<0.040	0.040	8545870
Methylene Chloride(Dichloromethane	ug/g	0.1	<0.049	0.049	8545870
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	0.40	8545870

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VGD142		
Sampling Date			2023/03/07 18:00		
	UNITS	Criteria	DUP031	RDL	QC Batch
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	0.40	8545870
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	0.040	8545870
Styrene	ug/g	0.7	<0.040	0.040	8545870
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	0.040	8545870
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	0.040	8545870
Tetrachloroethylene	ug/g	0.28	<0.040	0.040	8545870
Toluene	ug/g	2.3	<0.020	0.020	8545870
1,1,1-Trichloroethane	ug/g	0.38	<0.040	0.040	8545870
1,1,2-Trichloroethane	ug/g	0.05	<0.040	0.040	8545870
Trichloroethylene	ug/g	0.061	<0.010	0.010	8545870
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	0.040	8545870
Vinyl Chloride	ug/g	0.02	<0.019	0.019	8545870
p+m-Xylene	ug/g	-	<0.020	0.020	8545870
o-Xylene	ug/g	-	<0.020	0.020	8545870
Total Xylenes	ug/g	3.1	<0.020	0.020	8545870
F1 (C6-C10)	ug/g	55	<10	10	8545870
F1 (C6-C10) - BTEX	ug/g	55	<10	10	8545870
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	8549405
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	8549405
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	8549405
Reached Baseline at C50	ug/g	-	Yes		8549405
Surrogate Recovery (%)					
o-Terphenyl	%	-	94		8549405
4-Bromofluorobenzene	%	-	94		8545870
D10-o-Xylene	%	-	105		8545870
D4-1,2-Dichloroethane	%	-	102		8545870
D8-Toluene	%	-	100		8545870

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		VGD136	VGD137		VGD138		VGD139		VGD140		
Sampling Date		2023/03/06 18:30	2023/03/06 18:30		2023/03/06 18:30		2023/03/06 18:30		2023/03/07 18:00		
	UNITS	BH104 SS1	DUP041	QC Batch	BH104 SS3	QC Batch	BH104 SS4	QC Batch	BH101 SS3	RDL	QC Batch
Inorganics											
Moisture	%	22	21	8547925	14	8547890	10	8547645	8.1	1.0	8547890

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		VGD141		VGD142		
Sampling Date		2023/03/07 18:00		2023/03/07 18:00		
	UNITS	BH101 SS4	QC Batch	DUP031	RDL	QC Batch
Inorganics						
Moisture	%	8.7	8547925	8.6	1.0	8547890

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VGD136
Sample ID: BH104 SS1
Matrix: Soil

Collected: 2023/03/06
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8544072	N/A	2023/03/14	Automated Statchk
Hot Water Extractable Boron	ICP	8550550	2023/03/14	2023/03/15	Thuy Linh Nguyen
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Free (WAD) Cyanide	TECH	8549026	2023/03/13	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8550727	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8548888	2023/03/13	2023/03/14	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul
Moisture	BAL	8547925	N/A	2023/03/11	Rajkumar Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8548087	2023/03/12	2023/03/13	Joe Paino
pH CaCl2 EXTRACT	AT	8550740	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8544279	N/A	2023/03/15	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas ID: VGD137
Sample ID: DUP041
Matrix: Soil

Collected: 2023/03/06
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8544072	N/A	2023/03/14	Automated Statchk
Hot Water Extractable Boron	ICP	8550550	2023/03/14	2023/03/15	Thuy Linh Nguyen
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Free (WAD) Cyanide	TECH	8549026	2023/03/13	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8550727	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8548888	2023/03/13	2023/03/14	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul
Moisture	BAL	8547925	N/A	2023/03/11	Rajkumar Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8548087	2023/03/12	2023/03/13	Joe Paino
pH CaCl2 EXTRACT	AT	8550790	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8544279	N/A	2023/03/15	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas ID: VGD137 Dup
Sample ID: DUP041
Matrix: Soil

Collected: 2023/03/06
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VGD138
Sample ID: BH104 SS3
Matrix: Soil

Collected: 2023/03/06
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8544072	N/A	2023/03/14	Automated Statchk
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Moisture	BAL	8547890	N/A	2023/03/11	Rajkumar Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8548087	2023/03/12	2023/03/13	Joe Paino
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas ID: VGD139
Sample ID: BH104 SS4
Matrix: Soil

Collected: 2023/03/06
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	8550550	2023/03/14	2023/03/15	Thuy Linh Nguyen
Free (WAD) Cyanide	TECH	8549034	2023/03/13	2023/03/14	Chloe Pollock
Conductivity	AT	8550727	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8549146	2023/03/13	2023/03/14	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul
Moisture	BAL	8547645	N/A	2023/03/11	Simrat Bhathal
pH CaCl2 EXTRACT	AT	8550740	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8544279	N/A	2023/03/15	Automated Statchk

Bureau Veritas ID: VGD140
Sample ID: BH101 SS3
Matrix: Soil

Collected: 2023/03/07
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8544072	N/A	2023/03/14	Automated Statchk
Hot Water Extractable Boron	ICP	8550550	2023/03/14	2023/03/15	Thuy Linh Nguyen
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Free (WAD) Cyanide	TECH	8549026	2023/03/13	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8550727	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8548888	2023/03/13	2023/03/14	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul
Moisture	BAL	8547890	N/A	2023/03/11	Rajkumar Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8548087	2023/03/12	2023/03/13	Joe Paino
pH CaCl2 EXTRACT	AT	8550790	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8544279	N/A	2023/03/15	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VGD141
Sample ID: BH101 SS4
Matrix: Soil

Collected: 2023/03/07
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8544072	N/A	2023/03/14	Automated Statchk
Hot Water Extractable Boron	ICP	8550550	2023/03/14	2023/03/15	Thuy Linh Nguyen
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Free (WAD) Cyanide	TECH	8549026	2023/03/13	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8550727	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8548888	2023/03/13	2023/03/14	Sousan Besharatlou
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8550409	2023/03/14	2023/03/14	Indira HarryPaul
Moisture	BAL	8547925	N/A	2023/03/11	Rajkumar Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8548087	2023/03/12	2023/03/13	Joe Paino
pH CaCl2 EXTRACT	AT	8550740	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8544279	N/A	2023/03/15	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas ID: VGD142
Sample ID: DUP031
Matrix: Soil

Collected: 2023/03/07
Shipped:
Received: 2023/03/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	8544240	N/A	2023/03/15	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8549405	2023/03/13	2023/03/14	Emir Danisman
Moisture	BAL	8547890	N/A	2023/03/11	Rajkumar Patel
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8545870	N/A	2023/03/14	Denis Reid

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Cooler custody seal present and intact.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8545870	4-Bromofluorobenzene	2023/03/14	98	60 - 140	99	60 - 140	96	%		
8545870	D10-o-Xylene	2023/03/14	112	60 - 130	95	60 - 130	95	%		
8545870	D4-1,2-Dichloroethane	2023/03/14	101	60 - 140	102	60 - 140	98	%		
8545870	D8-Toluene	2023/03/14	101	60 - 140	98	60 - 140	98	%		
8548087	D10-Anthracene	2023/03/13	100	50 - 130	124	50 - 130	128	%		
8548087	D14-Terphenyl (FS)	2023/03/13	85	50 - 130	110	50 - 130	104	%		
8548087	D8-Acenaphthylene	2023/03/13	87	50 - 130	104	50 - 130	87	%		
8549405	o-Terphenyl	2023/03/13	100	60 - 130	100	60 - 130	103	%		
8545870	1,1,1,2-Tetrachloroethane	2023/03/14	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8545870	1,1,1-Trichloroethane	2023/03/14	96	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8545870	1,1,2,2-Tetrachloroethane	2023/03/14	95	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8545870	1,1,2-Trichloroethane	2023/03/14	98	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
8545870	1,1-Dichloroethane	2023/03/14	87	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8545870	1,1-Dichloroethylene	2023/03/14	91	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8545870	1,2-Dichlorobenzene	2023/03/14	94	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8545870	1,2-Dichloroethane	2023/03/14	89	60 - 140	95	60 - 130	<0.049	ug/g	NC	50
8545870	1,2-Dichloropropane	2023/03/14	89	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8545870	1,3-Dichlorobenzene	2023/03/14	93	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8545870	1,4-Dichlorobenzene	2023/03/14	107	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
8545870	Acetone (2-Propanone)	2023/03/14	99	60 - 140	116	60 - 140	<0.49	ug/g	NC	50
8545870	Benzene	2023/03/14	86	60 - 140	91	60 - 130	<0.0060	ug/g	1.6	50
8545870	Bromodichloromethane	2023/03/14	94	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8545870	Bromoform	2023/03/14	97	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8545870	Bromomethane	2023/03/14	82	60 - 140	95	60 - 140	<0.040	ug/g	NC	50
8545870	Carbon Tetrachloride	2023/03/14	94	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8545870	Chlorobenzene	2023/03/14	93	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8545870	Chloroform	2023/03/14	91	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8545870	cis-1,2-Dichloroethylene	2023/03/14	92	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8545870	cis-1,3-Dichloropropene	2023/03/14	78	60 - 140	100	60 - 130	<0.030	ug/g	NC	50
8545870	Dibromochloromethane	2023/03/14	97	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
8545870	Dichlorodifluoromethane (FREON 12)	2023/03/14	75	60 - 140	111	60 - 140	<0.040	ug/g	NC	50

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8545870	Ethylbenzene	2023/03/14	85	60 - 140	85	60 - 130	<0.010	ug/g	NC	50
8545870	Ethylene Dibromide	2023/03/14	92	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8545870	F1 (C6-C10) - BTEX	2023/03/14					<10	ug/g	NC	30
8545870	F1 (C6-C10)	2023/03/14	87	60 - 140	98	80 - 120	<10	ug/g	NC	30
8545870	Hexane	2023/03/14	87	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8545870	Methyl Ethyl Ketone (2-Butanone)	2023/03/14	101	60 - 140	122	60 - 140	<0.40	ug/g	NC	50
8545870	Methyl Isobutyl Ketone	2023/03/14	93	60 - 140	106	60 - 130	<0.40	ug/g	NC	50
8545870	Methyl t-butyl ether (MTBE)	2023/03/14	88	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8545870	Methylene Chloride(Dichloromethane)	2023/03/14	99	60 - 140	104	60 - 130	<0.049	ug/g	NC	50
8545870	o-Xylene	2023/03/14	87	60 - 140	87	60 - 130	<0.020	ug/g	NC	50
8545870	p+m-Xylene	2023/03/14	87	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
8545870	Styrene	2023/03/14	96	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8545870	Tetrachloroethylene	2023/03/14	84	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
8545870	Toluene	2023/03/14	90	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
8545870	Total Xylenes	2023/03/14					<0.020	ug/g	NC	50
8545870	trans-1,2-Dichloroethylene	2023/03/14	87	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8545870	trans-1,3-Dichloropropene	2023/03/14	82	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
8545870	Trichloroethylene	2023/03/14	95	60 - 140	100	60 - 130	<0.010	ug/g	NC	50
8545870	Trichlorofluoromethane (FREON 11)	2023/03/14	89	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8545870	Vinyl Chloride	2023/03/14	68	60 - 140	87	60 - 130	<0.019	ug/g	NC	50
8547645	Moisture	2023/03/11							1.2	20
8547890	Moisture	2023/03/11							0.61	20
8547925	Moisture	2023/03/11							3.1	20
8548087	1-Methylnaphthalene	2023/03/13	91	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8548087	2-Methylnaphthalene	2023/03/13	79	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8548087	Acenaphthene	2023/03/13	94	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8548087	Acenaphthylene	2023/03/13	99	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40
8548087	Anthracene	2023/03/13	106	50 - 130	122	50 - 130	<0.0050	ug/g	NC	40
8548087	Benzo(a)anthracene	2023/03/13	98	50 - 130	111	50 - 130	<0.0050	ug/g	30	40
8548087	Benzo(a)pyrene	2023/03/13	86	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8548087	Benzo(b/j)fluoranthene	2023/03/13	87	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8548087	Benzo(g,h,i)perylene	2023/03/13	90	50 - 130	106	50 - 130	<0.0050	ug/g	36	40
8548087	Benzo(k)fluoranthene	2023/03/13	72	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8548087	Chrysene	2023/03/13	103	50 - 130	115	50 - 130	<0.0050	ug/g	9.5	40
8548087	Dibenzo(a,h)anthracene	2023/03/13	90	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8548087	Fluoranthene	2023/03/13	96	50 - 130	122	50 - 130	<0.0050	ug/g	NC	40
8548087	Fluorene	2023/03/13	98	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
8548087	Indeno(1,2,3-cd)pyrene	2023/03/13	94	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
8548087	Naphthalene	2023/03/13	82	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8548087	Phenanthrene	2023/03/13	93	50 - 130	109	50 - 130	<0.0050	ug/g	NC	40
8548087	Pyrene	2023/03/13	101	50 - 130	121	50 - 130	<0.0050	ug/g	NC	40
8548888	Chromium (VI)	2023/03/14	71	70 - 130	92	80 - 120	<0.18	ug/g	NC	35
8549026	WAD Cyanide (Free)	2023/03/14	76	75 - 125	100	80 - 120	<0.01	ug/g	NC	35
8549034	WAD Cyanide (Free)	2023/03/14	91	75 - 125	95	80 - 120	<0.01	ug/g	NC	35
8549146	Chromium (VI)	2023/03/14	85	70 - 130	94	80 - 120	<0.18	ug/g	NC	35
8549405	F2 (C10-C16 Hydrocarbons)	2023/03/13	110	60 - 130	109	80 - 120	<10	ug/g	NC	30
8549405	F3 (C16-C34 Hydrocarbons)	2023/03/13	112	60 - 130	112	80 - 120	<50	ug/g	NC	30
8549405	F4 (C34-C50 Hydrocarbons)	2023/03/13	114	60 - 130	115	80 - 120	<50	ug/g	5.3	30
8550409	Acid Extractable Antimony (Sb)	2023/03/14	95	75 - 125	104	80 - 120	<0.20	ug/g	13	30
8550409	Acid Extractable Arsenic (As)	2023/03/14	90	75 - 125	99	80 - 120	<1.0	ug/g	7.7	30
8550409	Acid Extractable Barium (Ba)	2023/03/14	NC	75 - 125	99	80 - 120	<0.50	ug/g	4.1	30
8550409	Acid Extractable Beryllium (Be)	2023/03/14	94	75 - 125	97	80 - 120	<0.20	ug/g	2.5	30
8550409	Acid Extractable Boron (B)	2023/03/14	86	75 - 125	101	80 - 120	<5.0	ug/g	13	30
8550409	Acid Extractable Cadmium (Cd)	2023/03/14	93	75 - 125	99	80 - 120	<0.10	ug/g	21	30
8550409	Acid Extractable Chromium (Cr)	2023/03/14	NC	75 - 125	100	80 - 120	<1.0	ug/g	6.1	30
8550409	Acid Extractable Cobalt (Co)	2023/03/14	91	75 - 125	101	80 - 120	<0.10	ug/g	7.6	30
8550409	Acid Extractable Copper (Cu)	2023/03/14	NC	75 - 125	102	80 - 120	<0.50	ug/g	11	30
8550409	Acid Extractable Lead (Pb)	2023/03/14	NC	75 - 125	100	80 - 120	<1.0	ug/g	7.2	30
8550409	Acid Extractable Mercury (Hg)	2023/03/14	98	75 - 125	102	80 - 120	<0.050	ug/g	8.5	30
8550409	Acid Extractable Molybdenum (Mo)	2023/03/14	93	75 - 125	101	80 - 120	<0.50	ug/g	18	30
8550409	Acid Extractable Nickel (Ni)	2023/03/14	85	75 - 125	98	80 - 120	<0.50	ug/g	16	30
8550409	Acid Extractable Selenium (Se)	2023/03/14	93	75 - 125	101	80 - 120	<0.50	ug/g	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8550409	Acid Extractable Silver (Ag)	2023/03/14	96	75 - 125	104	80 - 120	<0.20	ug/g	19	30
8550409	Acid Extractable Thallium (Tl)	2023/03/14	95	75 - 125	102	80 - 120	<0.050	ug/g	23	30
8550409	Acid Extractable Uranium (U)	2023/03/14	96	75 - 125	101	80 - 120	<0.050	ug/g	5.4	30
8550409	Acid Extractable Vanadium (V)	2023/03/14	NC	75 - 125	99	80 - 120	<5.0	ug/g	3.2	30
8550409	Acid Extractable Zinc (Zn)	2023/03/14	NC	75 - 125	98	80 - 120	<5.0	ug/g	12	30
8550550	Hot Water Ext. Boron (B)	2023/03/15	107	75 - 125	101	75 - 125	<0.050	ug/g	4.7	40
8550727	Conductivity	2023/03/14			105	90 - 110	<0.002	mS/cm	0.98	10
8550740	Available (CaCl2) pH	2023/03/14			100	97 - 103			1.4	N/A
8550790	Available (CaCl2) pH	2023/03/14			100	97 - 103			0.64	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.

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)

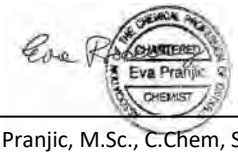
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

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



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvna.com

C 09-Mar-23 15:16
Marijane Cruz
C367624

SBS ENV-813

Bottle Order #: 923799

Project Manager: Marijane Cruz

C#923799-05-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C20582
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:	
Address:	1 Banigan Drive Toronto ON M4H 1G3	Address:		Project:	22-282
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Project Name:	
Email:	llevesque@groundedeng.ca	Email:	llevesque@groundedeng.ca	Site #:	2072 Lakeshore Road, Burlingto
				Sampled By:	CSH

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [ ] Table 1 [X] Res/Park [ ] Medium/Fine
- [X] Table 2 [ ] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO [ ] Reg 406 Table ___
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O. Reg 153 Metals & Inorganics Pkg (Soil)	O. Reg 153 PAHs (Soil)	O. Reg 153 PHCs, BTEX/F1-F4 (Soil)	O. Reg 153 VOCs by HS (Soil)	# of Bottles	Comments
1		BH104 SS1	23/03/06	18:30	SOIL	X	X	X	X	5	
2		DUP 041	"	"	"	X	X	X	X	5	
3		BH104 SS3	"	"	"		X	X	X	4	
4		BH104 SS4	"	"	"	X				1	
5		BH101 SS3	23/03/07	18:00	SOIL	X	X	X	X	5	
6		BH101 SS4	"	"	"	X	X	X	X	5	
7		DUP 031	"	"	"			X	X	3	
8											
9											
10											

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23/03/08	17:00	KAIQI SOLADIMEA	2023/03/09	15:16	

Laboratory Use Only
Time Sensitive
Temperature (°C) on Rece: -1 | -0 | -0
Custody Seal: Present ✓ Intact ✓ Yes ✓ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

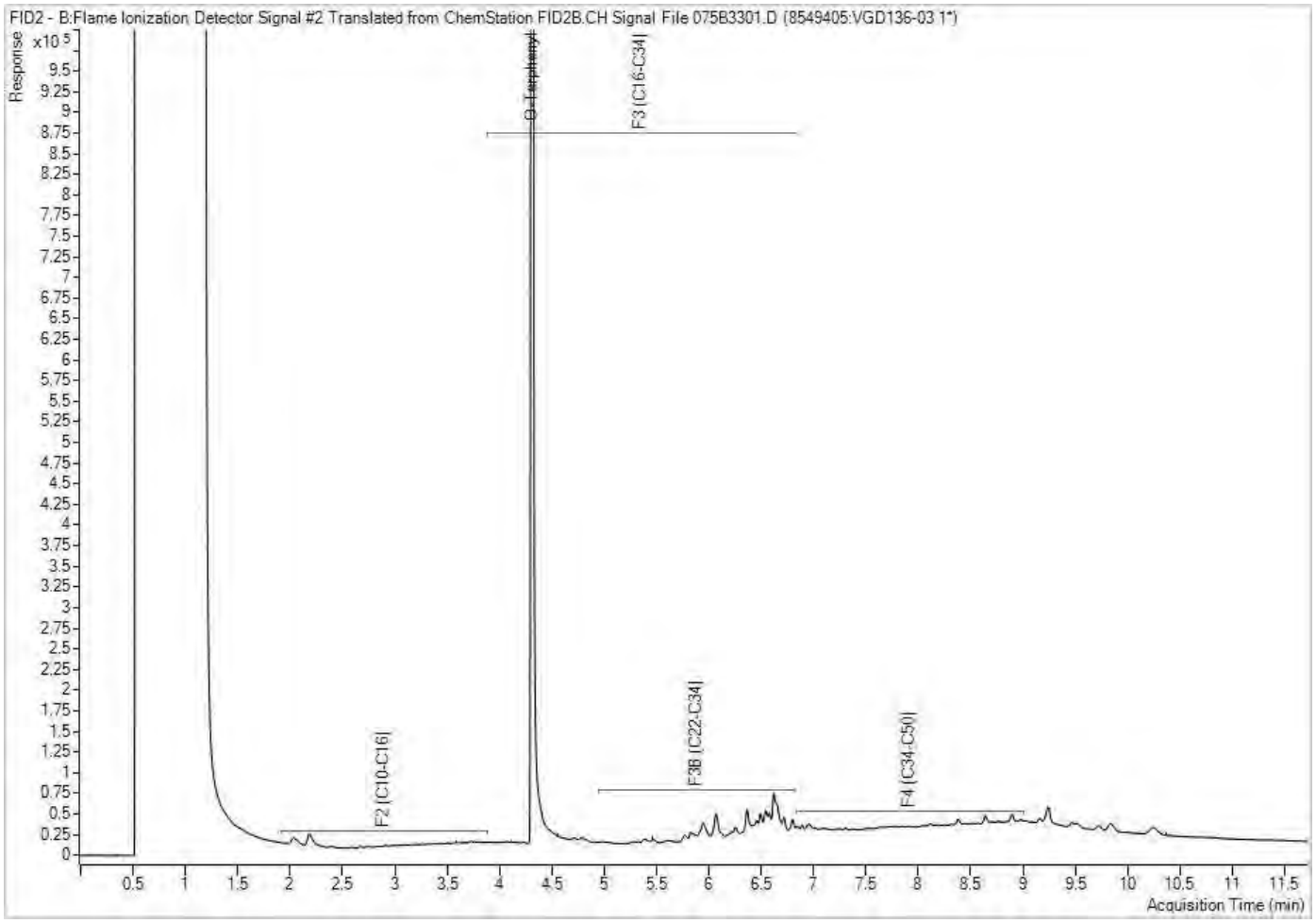
White: Bureau Veritas Yellow: Client
On Ice

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD136

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH104 SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

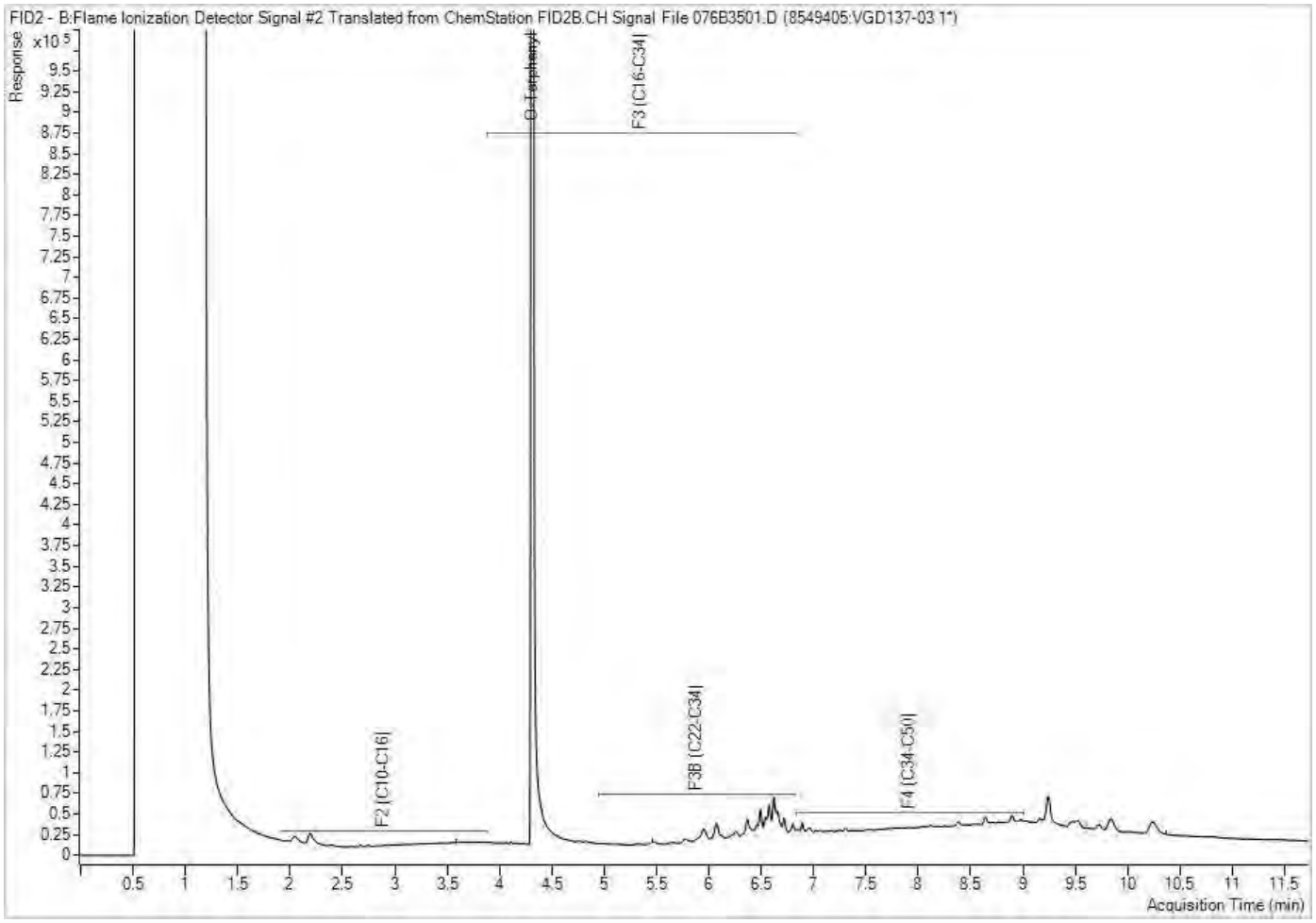


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD137

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: DUP041

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

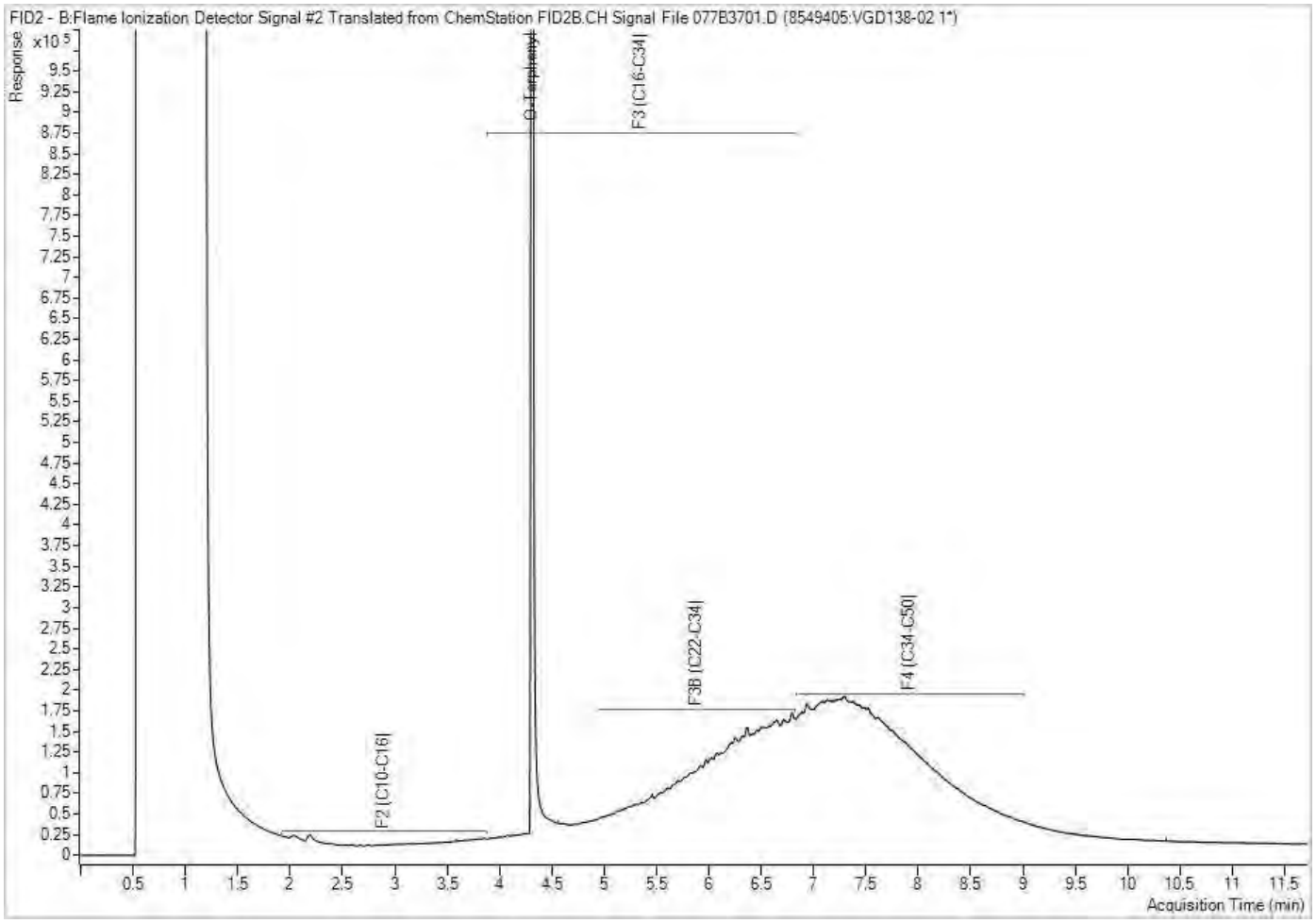


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD138

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH104 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

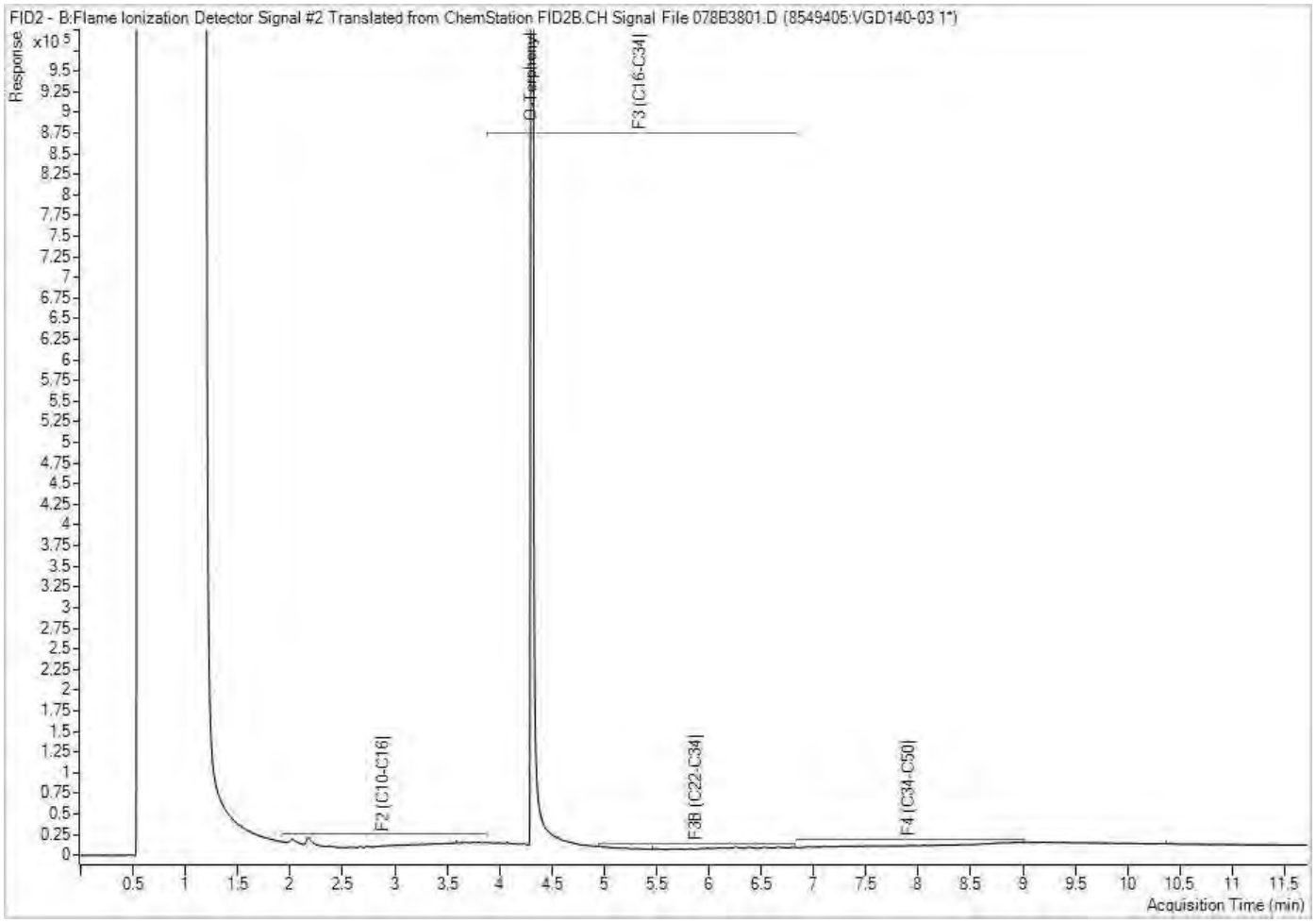


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD140

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH101 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

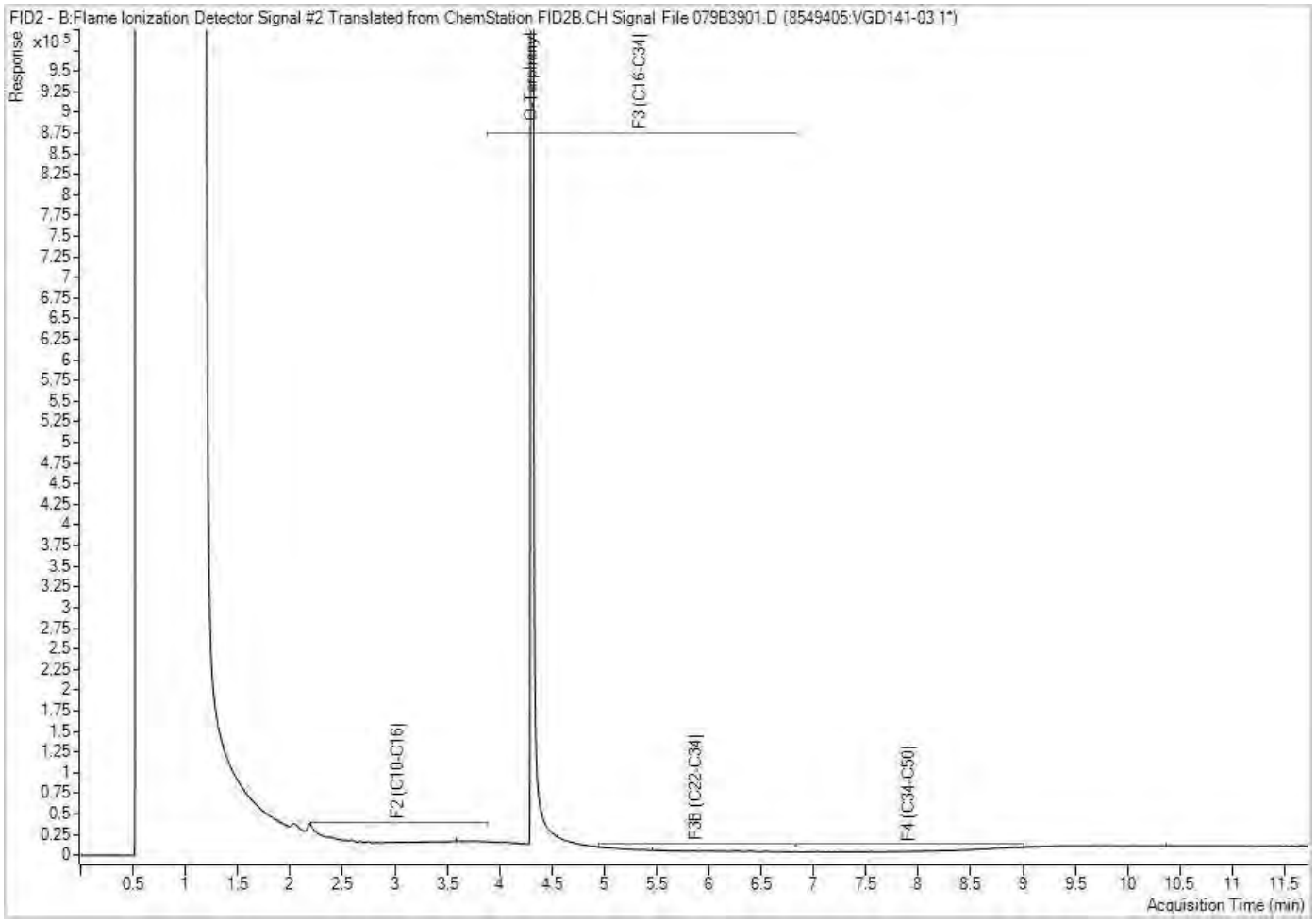


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD141

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH101 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

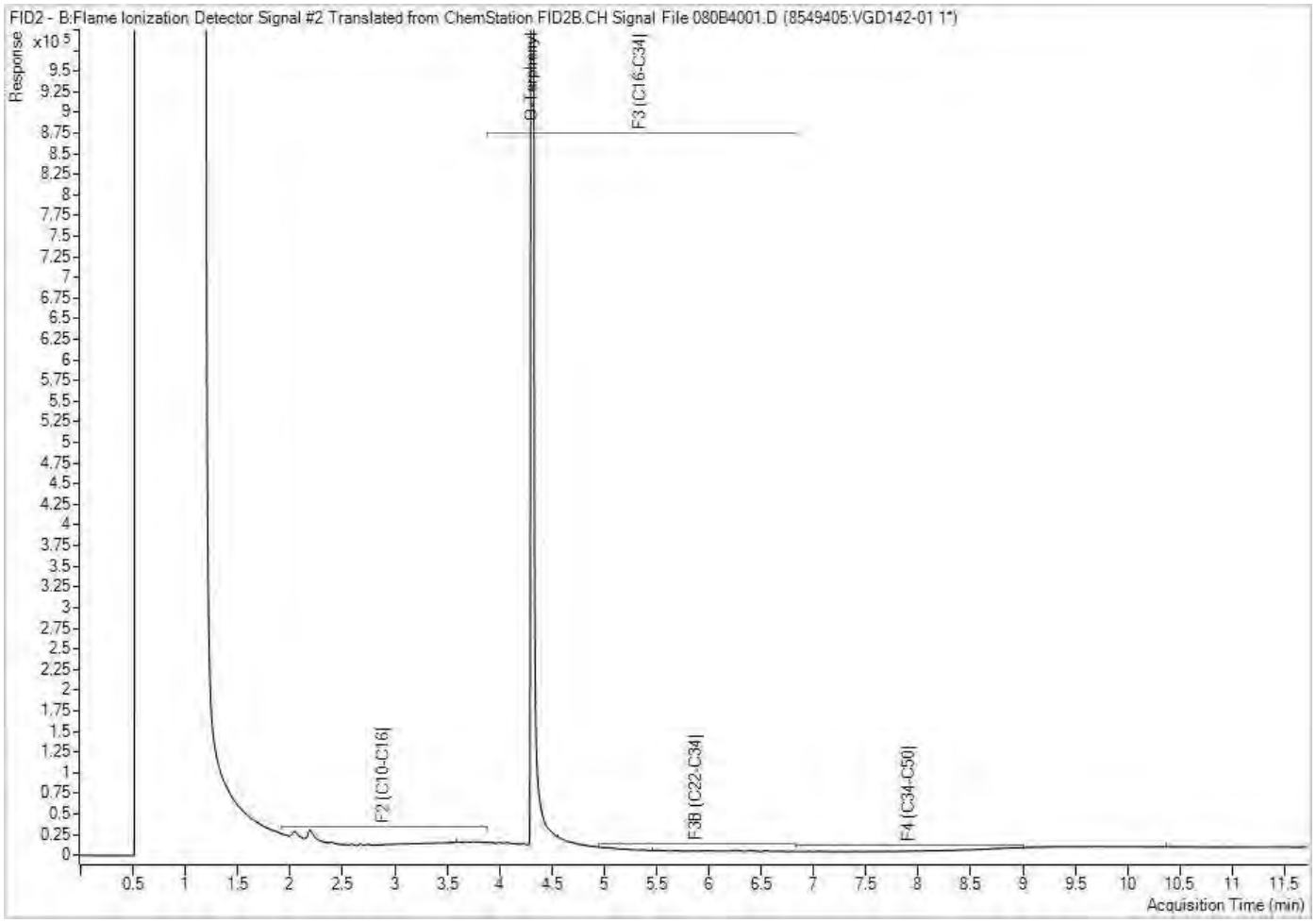


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C367624
Report Date: 2023/03/16
Bureau Veritas Sample: VGD142

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: DUP031

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Exceedance Summary Table – Reg153/04 T2-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH104 SS3	VGD138-02	F3 (C16-C34 Hydrocarbons)	300	340	50	ug/g
BH101 SS3	VGD140-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
BH101 SS3	VGD140-01	Conductivity	0.7	0.85	0.002	mS/cm
BH101 SS3	VGD140-01	Sodium Adsorption Ratio	5.0	17		N/A
BH101 SS3	VGD140-01	Acid Extractable Zinc (Zn)	340	720	5.0	ug/g
BH101 SS4	VGD141-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
BH101 SS4	VGD141-01	Conductivity	0.7	1.4	0.002	mS/cm
BH101 SS4	VGD141-01	Sodium Adsorption Ratio	5.0	16		N/A
BH101 SS4	VGD141-01	Acid Extractable Zinc (Zn)	340	720	5.0	ug/g

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Your C.O.C. #: 923799-02-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/16
Report #: R7548969
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C369099
Received: 2023/03/10, 09:57

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	3	N/A	2023/03/15	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	3	2023/03/14	2023/03/15	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2023/03/15		EPA 8260C m
Free (WAD) Cyanide	3	2023/03/14	2023/03/14	CAM SOP-00457	OMOE E3015 m
Conductivity	3	2023/03/14	2023/03/14	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	3	2023/03/14	2023/03/15	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2023/03/14	2023/03/14	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	3	2023/03/15	2023/03/15	CAM SOP-00447	EPA 6020B m
Moisture	2	N/A	2023/03/13	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture	3	N/A	2023/03/14	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2023/03/13	2023/03/14	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	2	2023/03/14	2023/03/15	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	3	2023/03/14	2023/03/14	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	3	N/A	2023/03/16	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2023/03/13	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, MELCC, EPA, APHA.

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

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Your C.O.C. #: 923799-02-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/16
Report #: R7548969
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C369099
Received: 2023/03/10, 09:57

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VGK807	VGK808		VGK809			VGK809		
Sampling Date			2023/03/09 11:30	2023/03/09 11:30		2023/03/09 11:30			2023/03/09 11:30		
COC Number			923799-02-01	923799-02-01		923799-02-01			923799-02-01		
	UNITS	Criteria	BH102 SS3A	DUP023	QC Batch	BH102 SS4	RDL	QC Batch	BH102 SS4 Lab-Dup	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	5.0	**5.9**	**6.1**	8545901	3.0		8545901			
Inorganics											
Conductivity	mS/cm	0.7	0.33	0.33	8551543	0.62	0.002	8551543			
Available (CaCl2) pH	pH	-	8.09	8.08	8550898	7.81		8551001			
WAD Cyanide (Free)	ug/g	0.051	<0.01	<0.01	8551230	<0.01	0.01	8551230			
Chromium (VI)	ug/g	8	<0.18	<0.18	8550514	<0.18	0.18	8550514	<0.18	0.18	8550514
Metals											
Hot Water Ext. Boron (B)	ug/g	1.5	0.074	0.16	8550689	0.38	0.050	8550689			
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	<0.20	8553292	0.21	0.20	8553292			
Acid Extractable Arsenic (As)	ug/g	18	3.6	3.5	8553292	4.6	1.0	8553292			
Acid Extractable Barium (Ba)	ug/g	390	14	14	8553292	100	0.50	8553292			
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	0.21	8553292	0.66	0.20	8553292			
Acid Extractable Boron (B)	ug/g	120	7.4	7.4	8553292	14	5.0	8553292			
Acid Extractable Cadmium (Cd)	ug/g	1.2	**1.3**	**1.3**	8553292	0.13	0.10	8553292			
Acid Extractable Chromium (Cr)	ug/g	160	7.8	6.9	8553292	22	1.0	8553292			
Acid Extractable Cobalt (Co)	ug/g	22	3.1	3.2	8553292	12	0.10	8553292			
Acid Extractable Copper (Cu)	ug/g	140	19	18	8553292	29	0.50	8553292			
Acid Extractable Lead (Pb)	ug/g	120	110	110	8553292	14	1.0	8553292			
Acid Extractable Molybdenum (Mo	ug/g	6.9	0.63	<0.50	8553292	0.68	0.50	8553292			
Acid Extractable Nickel (Ni)	ug/g	100	8.8	8.5	8553292	26	0.50	8553292			
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	<0.50	8553292	<0.50	0.50	8553292			
Acid Extractable Silver (Ag)	ug/g	20	<0.20	<0.20	8553292	<0.20	0.20	8553292			
Acid Extractable Thallium (Tl)	ug/g	1	0.099	0.099	8553292	0.087	0.050	8553292			
Acid Extractable Uranium (U)	ug/g	23	0.45	0.46	8553292	0.60	0.050	8553292			
Acid Extractable Vanadium (V)	ug/g	86	14	13	8553292	27	5.0	8553292			
Acid Extractable Zinc (Zn)	ug/g	340	**750**	**730**	8553292	82	5.0	8553292			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VGK807	VGK808		VGK809			VGK809		
Sampling Date			2023/03/09 11:30	2023/03/09 11:30		2023/03/09 11:30			2023/03/09 11:30		
COC Number			923799-02-01	923799-02-01		923799-02-01			923799-02-01		
	UNITS	**Criteria**	**BH102 SS3A**	**DUP023**	**QC Batch**	**BH102 SS4**	**RDL**	**QC Batch**	**BH102 SS4 Lab-Dup**	**RDL**	**QC Batch**
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	<0.050	8553292	<0.050	0.050	8553292			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			VGK805		VGK806		VGK809		
Sampling Date			2023/03/09 11:30		2023/03/09 11:30		2023/03/09 11:30		
COC Number			923799-02-01		923799-02-01		923799-02-01		
	UNITS	Criteria	BH102 SS2	QC Batch	DUP 022	QC Batch	BH102 SS4	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	8545932	<0.0071	8545932	<0.0071	0.0071	8545932
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	7.9	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Acenaphthylene	ug/g	0.15	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Anthracene	ug/g	0.67	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Benzo(a)anthracene	ug/g	0.5	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Benzo(a)pyrene	ug/g	0.3	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Benzo(b/j)fluoranthene	ug/g	0.78	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Benzo(g,h,i)perylene	ug/g	6.6	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Chrysene	ug/g	7	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Fluoranthene	ug/g	0.69	0.010	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Fluorene	ug/g	62	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Indeno(1,2,3-cd)pyrene	ug/g	0.38	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
1-Methylnaphthalene	ug/g	0.99	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
2-Methylnaphthalene	ug/g	0.99	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Naphthalene	ug/g	0.6	<0.0050	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Phenanthrene	ug/g	6.2	0.0055	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Pyrene	ug/g	78	0.0077	8550244	<0.0050	8550101	<0.0050	0.0050	8550244
Surrogate Recovery (%)									
D10-Anthracene	%	-	102	8550244	95	8550101	99		8550244
D14-Terphenyl (FS)	%	-	100	8550244	90	8550101	100		8550244
D8-Acenaphthylene	%	-	94	8550244	86	8550101	96		8550244

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VGK805	VGK809		
Sampling Date			2023/03/09 11:30	2023/03/09 11:30		
COC Number			923799-02-01	923799-02-01		
	UNITS	Criteria	BH102 SS2	BH102 SS4	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	8545933
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	0.49	8547955
Benzene	ug/g	0.21	<0.0060	<0.0060	0.0060	8547955
Bromodichloromethane	ug/g	1.5	<0.040	<0.040	0.040	8547955
Bromoform	ug/g	0.27	<0.040	<0.040	0.040	8547955
Bromomethane	ug/g	0.05	<0.040	<0.040	0.040	8547955
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	0.040	8547955
Chlorobenzene	ug/g	2.4	<0.040	<0.040	0.040	8547955
Chloroform	ug/g	0.05	<0.040	<0.040	0.040	8547955
Dibromochloromethane	ug/g	2.3	<0.040	<0.040	0.040	8547955
1,2-Dichlorobenzene	ug/g	1.2	<0.040	<0.040	0.040	8547955
1,3-Dichlorobenzene	ug/g	4.8	<0.040	<0.040	0.040	8547955
1,4-Dichlorobenzene	ug/g	0.083	<0.040	<0.040	0.040	8547955
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	0.040	8547955
1,1-Dichloroethane	ug/g	0.47	<0.040	<0.040	0.040	8547955
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	0.049	8547955
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	0.040	8547955
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	<0.040	0.040	8547955
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	<0.040	0.040	8547955
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	0.040	8547955
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	8547955
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	8547955
Ethylbenzene	ug/g	1.1	<0.010	<0.010	0.010	8547955
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	0.040	8547955
Hexane	ug/g	2.8	<0.040	<0.040	0.040	8547955
Methylene Chloride(Dichloromethane	ug/g	0.1	<0.049	<0.049	0.049	8547955
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	<0.40	0.40	8547955

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VGK805	VGK809		
Sampling Date			2023/03/09 11:30	2023/03/09 11:30		
COC Number			923799-02-01	923799-02-01		
	UNITS	Criteria	BH102 SS2	BH102 SS4	RDL	QC Batch
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	<0.40	0.40	8547955
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	<0.040	0.040	8547955
Styrene	ug/g	0.7	<0.040	<0.040	0.040	8547955
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	<0.040	0.040	8547955
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	0.040	8547955
Tetrachloroethylene	ug/g	0.28	<0.040	<0.040	0.040	8547955
Toluene	ug/g	2.3	<0.020	<0.020	0.020	8547955
1,1,1-Trichloroethane	ug/g	0.38	<0.040	<0.040	0.040	8547955
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	0.040	8547955
Trichloroethylene	ug/g	0.061	<0.010	<0.010	0.010	8547955
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	0.040	8547955
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	0.019	8547955
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	8547955
o-Xylene	ug/g	-	<0.020	<0.020	0.020	8547955
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	8547955
F1 (C6-C10)	ug/g	55	<10	<10	10	8547955
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	8547955
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	8551521
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	8551521
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	8551521
Reached Baseline at C50	ug/g	-	Yes	Yes		8551521
Surrogate Recovery (%)						
o-Terphenyl	%	-	100	91		8551521
4-Bromofluorobenzene	%	-	93	94		8547955
D10-o-Xylene	%	-	96	98		8547955
D4-1,2-Dichloroethane	%	-	101	100		8547955
D8-Toluene	%	-	99	99		8547955

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		VGK805	VGK806		VGK807		VGK808		
Sampling Date		2023/03/09 11:30	2023/03/09 11:30		2023/03/09 11:30		2023/03/09 11:30		
COC Number		923799-02-01	923799-02-01		923799-02-01		923799-02-01		
	UNITS	BH102 SS2	DUP 022	QC Batch	BH102 SS3A	QC Batch	DUP023	RDL	QC Batch
Inorganics									
Moisture	%	8.8	8.6	8550511	8.5	8548540	8.3	1.0	8549191

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		VGK809		
Sampling Date		2023/03/09 11:30		
COC Number		923799-02-01		
	UNITS	BH102 SS4	RDL	QC Batch
Inorganics				
Moisture	%	12	1.0	8550511

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VGK805 **Collected:** 2023/03/09
Sample ID: BH102 SS2 **Shipped:**
Matrix: Soil **Received:** 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8545932	N/A	2023/03/15	Automated Statchk
1,3-Dichloropropene Sum	CALC	8545933	N/A	2023/03/15	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8551521	2023/03/14	2023/03/14	Emir Danisman
Moisture	BAL	8550511	N/A	2023/03/14	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8550244	2023/03/14	2023/03/15	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8547955	N/A	2023/03/13	Juan Pangilinan

Bureau Veritas ID: VGK806 **Collected:** 2023/03/09
Sample ID: DUP 022 **Shipped:**
Matrix: Soil **Received:** 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8545932	N/A	2023/03/15	Automated Statchk
Moisture	BAL	8550511	N/A	2023/03/14	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8550101	2023/03/13	2023/03/14	Mitesh Raj

Bureau Veritas ID: VGK807 **Collected:** 2023/03/09
Sample ID: BH102 SS3A **Shipped:**
Matrix: Soil **Received:** 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	8550689	2023/03/14	2023/03/15	Thuy Linh Nguyen
Free (WAD) Cyanide	TECH	8551230	2023/03/14	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8551543	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8550514	2023/03/14	2023/03/15	Surleen Kaur Romana
Acid Extractable Metals by ICPMS	ICP/MS	8553292	2023/03/15	2023/03/15	Indira HarryPaul
Moisture	BAL	8548540	N/A	2023/03/13	Simrat Bhathal
pH CaCl2 EXTRACT	AT	8550898	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8545901	N/A	2023/03/16	Automated Statchk

Bureau Veritas ID: VGK808 **Collected:** 2023/03/09
Sample ID: DUP023 **Shipped:**
Matrix: Soil **Received:** 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	8550689	2023/03/14	2023/03/15	Thuy Linh Nguyen
Free (WAD) Cyanide	TECH	8551230	2023/03/14	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8551543	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8550514	2023/03/14	2023/03/15	Surleen Kaur Romana
Acid Extractable Metals by ICPMS	ICP/MS	8553292	2023/03/15	2023/03/15	Indira HarryPaul
Moisture	BAL	8549191	N/A	2023/03/13	Simrat Bhathal
pH CaCl2 EXTRACT	AT	8550898	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8545901	N/A	2023/03/16	Automated Statchk

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VGK809
Sample ID: BH102 SS4
Matrix: Soil

Collected: 2023/03/09
Shipped:
Received: 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8545932	N/A	2023/03/15	Automated Statchk
Hot Water Extractable Boron	ICP	8550689	2023/03/14	2023/03/15	Thuy Linh Nguyen
1,3-Dichloropropene Sum	CALC	8545933	N/A	2023/03/15	Automated Statchk
Free (WAD) Cyanide	TECH	8551230	2023/03/14	2023/03/14	Kruti Jitesh Patel
Conductivity	AT	8551543	2023/03/14	2023/03/14	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8550514	2023/03/14	2023/03/15	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8551521	2023/03/14	2023/03/14	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8553292	2023/03/15	2023/03/15	Indira HarryPaul
Moisture	BAL	8550511	N/A	2023/03/14	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8550244	2023/03/14	2023/03/15	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8551001	2023/03/14	2023/03/14	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8545901	N/A	2023/03/16	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8547955	N/A	2023/03/13	Juan Pangilinan

Bureau Veritas ID: VGK809 Dup
Sample ID: BH102 SS4
Matrix: Soil

Collected: 2023/03/09
Shipped:
Received: 2023/03/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	8550514	2023/03/14	2023/03/15	Surleen Kaur Romana

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Cooler custody seal was present and intact.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8547955	4-Bromofluorobenzene	2023/03/13	101	60 - 140	100	60 - 140	96	%		
8547955	D10-o-Xylene	2023/03/13	105	60 - 130	99	60 - 130	94	%		
8547955	D4-1,2-Dichloroethane	2023/03/13	100	60 - 140	99	60 - 140	99	%		
8547955	D8-Toluene	2023/03/13	103	60 - 140	102	60 - 140	99	%		
8550101	D10-Anthracene	2023/03/14	94	50 - 130	99	50 - 130	96	%		
8550101	D14-Terphenyl (FS)	2023/03/14	92	50 - 130	98	50 - 130	93	%		
8550101	D8-Acenaphthylene	2023/03/14	85	50 - 130	94	50 - 130	88	%		
8550244	D10-Anthracene	2023/03/15	104	50 - 130	102	50 - 130	104	%		
8550244	D14-Terphenyl (FS)	2023/03/15	102	50 - 130	101	50 - 130	99	%		
8550244	D8-Acenaphthylene	2023/03/15	97	50 - 130	101	50 - 130	95	%		
8551521	o-Terphenyl	2023/03/14	97	60 - 130	91	60 - 130	99	%		
8547955	1,1,1,2-Tetrachloroethane	2023/03/13	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8547955	1,1,1-Trichloroethane	2023/03/13	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8547955	1,1,2,2-Tetrachloroethane	2023/03/13	99	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8547955	1,1,2-Trichloroethane	2023/03/13	100	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8547955	1,1-Dichloroethane	2023/03/13	91	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
8547955	1,1-Dichloroethylene	2023/03/13	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8547955	1,2-Dichlorobenzene	2023/03/13	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8547955	1,2-Dichloroethane	2023/03/13	91	60 - 140	89	60 - 130	<0.049	ug/g	NC	50
8547955	1,2-Dichloropropane	2023/03/13	93	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8547955	1,3-Dichlorobenzene	2023/03/13	100	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
8547955	1,4-Dichlorobenzene	2023/03/13	109	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
8547955	Acetone (2-Propanone)	2023/03/13	107	60 - 140	104	60 - 140	<0.49	ug/g	NC	50
8547955	Benzene	2023/03/13	88	60 - 140	86	60 - 130	<0.0060	ug/g	NC	50
8547955	Bromodichloromethane	2023/03/13	98	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8547955	Bromoform	2023/03/13	98	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8547955	Bromomethane	2023/03/13	90	60 - 140	82	60 - 140	<0.040	ug/g	NC	50
8547955	Carbon Tetrachloride	2023/03/13	93	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8547955	Chlorobenzene	2023/03/13	97	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8547955	Chloroform	2023/03/13	93	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8547955	cis-1,2-Dichloroethylene	2023/03/13	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8547955	cis-1,3-Dichloropropene	2023/03/13	92	60 - 140	83	60 - 130	<0.030	ug/g	NC	50
8547955	Dibromochloromethane	2023/03/13	96	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
8547955	Dichlorodifluoromethane (FREON 12)	2023/03/13	95	60 - 140	90	60 - 140	<0.040	ug/g	NC	50
8547955	Ethylbenzene	2023/03/13	89	60 - 140	88	60 - 130	<0.010	ug/g	NC	50
8547955	Ethylene Dibromide	2023/03/13	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8547955	F1 (C6-C10) - BTEX	2023/03/13					<10	ug/g	NC	30
8547955	F1 (C6-C10)	2023/03/13	77	60 - 140	91	80 - 120	<10	ug/g	NC	30
8547955	Hexane	2023/03/13	92	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8547955	Methyl Ethyl Ketone (2-Butanone)	2023/03/13	93	60 - 140	90	60 - 140	<0.40	ug/g	NC	50
8547955	Methyl Isobutyl Ketone	2023/03/13	86	60 - 140	83	60 - 130	<0.40	ug/g	NC	50
8547955	Methyl t-butyl ether (MTBE)	2023/03/13	88	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
8547955	Methylene Chloride(Dichloromethane)	2023/03/13	93	60 - 140	91	60 - 130	<0.049	ug/g	NC	50
8547955	o-Xylene	2023/03/13	93	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
8547955	p+m-Xylene	2023/03/13	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
8547955	Styrene	2023/03/13	106	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
8547955	Tetrachloroethylene	2023/03/13	89	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
8547955	Toluene	2023/03/13	91	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
8547955	Total Xylenes	2023/03/13					<0.020	ug/g	NC	50
8547955	trans-1,2-Dichloroethylene	2023/03/13	92	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8547955	trans-1,3-Dichloropropene	2023/03/13	103	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
8547955	Trichloroethylene	2023/03/13	98	60 - 140	97	60 - 130	<0.010	ug/g	NC	50
8547955	Trichlorofluoromethane (FREON 11)	2023/03/13	91	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
8547955	Vinyl Chloride	2023/03/13	83	60 - 140	80	60 - 130	<0.019	ug/g	NC	50
8548540	Moisture	2023/03/13							0.92	20
8549191	Moisture	2023/03/13							5.1	20
8550101	1-Methylnaphthalene	2023/03/14	101	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8550101	2-Methylnaphthalene	2023/03/14	93	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
8550101	Acenaphthene	2023/03/14	93	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
8550101	Acenaphthylene	2023/03/14	88	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
8550101	Anthracene	2023/03/14	95	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
8550101	Benzo(a)anthracene	2023/03/14	98	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8550101	Benzo(a)pyrene	2023/03/14	89	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
8550101	Benzo(b/j)fluoranthene	2023/03/14	89	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
8550101	Benzo(g,h,i)perylene	2023/03/14	89	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
8550101	Benzo(k)fluoranthene	2023/03/14	90	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
8550101	Chrysene	2023/03/14	94	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
8550101	Dibenzo(a,h)anthracene	2023/03/14	88	50 - 130	83	50 - 130	<0.0050	ug/g	NC	40
8550101	Fluoranthene	2023/03/14	100	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8550101	Fluorene	2023/03/14	92	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
8550101	Indeno(1,2,3-cd)pyrene	2023/03/14	91	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
8550101	Naphthalene	2023/03/14	90	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
8550101	Phenanthrene	2023/03/14	90	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
8550101	Pyrene	2023/03/14	99	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8550244	1-Methylnaphthalene	2023/03/15	107	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8550244	2-Methylnaphthalene	2023/03/15	96	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8550244	Acenaphthene	2023/03/15	100	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8550244	Acenaphthylene	2023/03/15	102	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8550244	Anthracene	2023/03/15	103	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8550244	Benzo(a)anthracene	2023/03/15	106	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
8550244	Benzo(a)pyrene	2023/03/15	93	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
8550244	Benzo(b/j)fluoranthene	2023/03/15	105	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8550244	Benzo(g,h,i)perylene	2023/03/15	69	50 - 130	65	50 - 130	<0.0050	ug/g	NC	40
8550244	Benzo(k)fluoranthene	2023/03/15	99	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8550244	Chrysene	2023/03/15	101	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8550244	Dibenzo(a,h)anthracene	2023/03/15	57	50 - 130	53	50 - 130	<0.0050	ug/g	NC	40
8550244	Fluoranthene	2023/03/15	110	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8550244	Fluorene	2023/03/15	97	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
8550244	Indeno(1,2,3-cd)pyrene	2023/03/15	68	50 - 130	65	50 - 130	<0.0050	ug/g	NC	40
8550244	Naphthalene	2023/03/15	90	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
8550244	Phenanthrene	2023/03/15	99	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
8550244	Pyrene	2023/03/15	108	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8550511	Moisture	2023/03/14							1.1	20

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8550514	Chromium (VI)	2023/03/15	69 (1)	70 - 130	93	80 - 120	<0.18	ug/g	NC	35
8550689	Hot Water Ext. Boron (B)	2023/03/15	105	75 - 125	104	75 - 125	<0.050	ug/g	12	40
8550898	Available (CaCl2) pH	2023/03/14			100	97 - 103			1.0	N/A
8551001	Available (CaCl2) pH	2023/03/14			100	97 - 103			0.68	N/A
8551230	WAD Cyanide (Free)	2023/03/14	100	75 - 125	100	80 - 120	<0.01	ug/g	NC	35
8551521	F2 (C10-C16 Hydrocarbons)	2023/03/15	105	60 - 130	97	80 - 120	<10	ug/g	8.9	30
8551521	F3 (C16-C34 Hydrocarbons)	2023/03/15	104	60 - 130	98	80 - 120	<50	ug/g	15	30
8551521	F4 (C34-C50 Hydrocarbons)	2023/03/15	104	60 - 130	98	80 - 120	<50	ug/g	NC	30
8551543	Conductivity	2023/03/14			107	90 - 110	<0.002	mS/cm	2.3	10
8553292	Acid Extractable Antimony (Sb)	2023/03/15	95	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
8553292	Acid Extractable Arsenic (As)	2023/03/15	94	75 - 125	96	80 - 120	<1.0	ug/g	NC	30
8553292	Acid Extractable Barium (Ba)	2023/03/15	90	75 - 125	98	80 - 120	<0.50	ug/g	10	30
8553292	Acid Extractable Beryllium (Be)	2023/03/15	92	75 - 125	95	80 - 120	<0.20	ug/g	NC	30
8553292	Acid Extractable Boron (B)	2023/03/15	91	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
8553292	Acid Extractable Cadmium (Cd)	2023/03/15	91	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
8553292	Acid Extractable Chromium (Cr)	2023/03/15	100	75 - 125	99	80 - 120	<1.0	ug/g	6.8	30
8553292	Acid Extractable Cobalt (Co)	2023/03/15	93	75 - 125	96	80 - 120	<0.10	ug/g	5.3	30
8553292	Acid Extractable Copper (Cu)	2023/03/15	91	75 - 125	100	80 - 120	<0.50	ug/g	0.30	30
8553292	Acid Extractable Lead (Pb)	2023/03/15	91	75 - 125	99	80 - 120	<1.0	ug/g	4.9	30
8553292	Acid Extractable Mercury (Hg)	2023/03/15	96	75 - 125	102	80 - 120	<0.050	ug/g	NC	30
8553292	Acid Extractable Molybdenum (Mo)	2023/03/15	94	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
8553292	Acid Extractable Nickel (Ni)	2023/03/15	93	75 - 125	96	80 - 120	<0.50	ug/g	0.27	30
8553292	Acid Extractable Selenium (Se)	2023/03/15	94	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
8553292	Acid Extractable Silver (Ag)	2023/03/15	93	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
8553292	Acid Extractable Thallium (Tl)	2023/03/15	93	75 - 125	101	80 - 120	<0.050	ug/g	NC	30
8553292	Acid Extractable Uranium (U)	2023/03/15	92	75 - 125	98	80 - 120	<0.050	ug/g	11	30
8553292	Acid Extractable Vanadium (V)	2023/03/15	113	75 - 125	97	80 - 120	<5.0	ug/g	19	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8553292	Acid Extractable Zinc (Zn)	2023/03/15	94	75 - 125	102	80 - 120	<5.0	ug/g	11	30

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 (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).

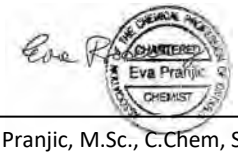
(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

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



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
5740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C20582
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:	
Address:	1 Banigan Drive Toronto ON M4H 1G3	Address:		Project:	22-282
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Project Name:	
Email:	llevesque@groundedeng.ca	Email:	llevesque@groundedeng.ca; Pwatkinson@groundedeng.ca	Site #:	2072 Lakeshore Road, Burlingto
				Sampled By:	CSH

10-Mar-23 09:57
Marijane Cruz
C369099
SWP ENV-1638

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☒ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality	
☐ Table	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 PAHs (Soil)	O.Reg 153 PHCs; BTEX/F1-F4 (Soil)	O.Reg 153 VOCs by HS (Soil)	# of Bottles	Comments
1		BH102 SS2	23/03/09	11:30	SOIL			X	X	X	4	
2		DUP 022						X			1	
3		BH102 SS3A					X				1	
4		DUP 023					X				1	
5		BH102 SS4					X	X	X	X	5	
6												
7												
8												
9												
10												

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required: ☐
Rush Confirmation Number: *(call lab for #)*

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23/03/09	19:15	Nikolie Sukkar BHAVIKA SHAKALWA	23/03/10	09:37	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	7.1 / 7.2	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

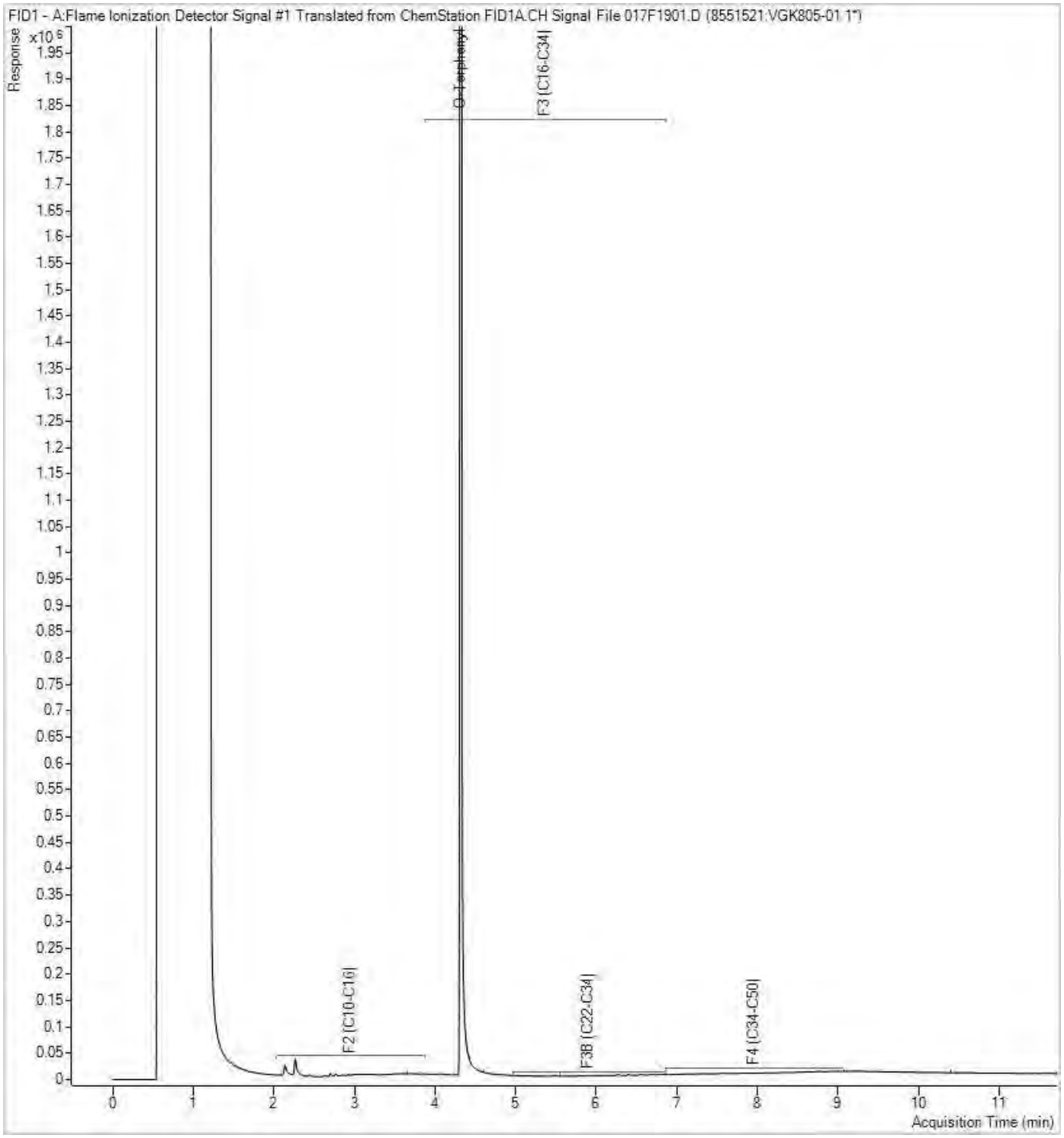
White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16
Bureau Veritas Sample: VGK805

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON, ON
Client ID: BH102 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

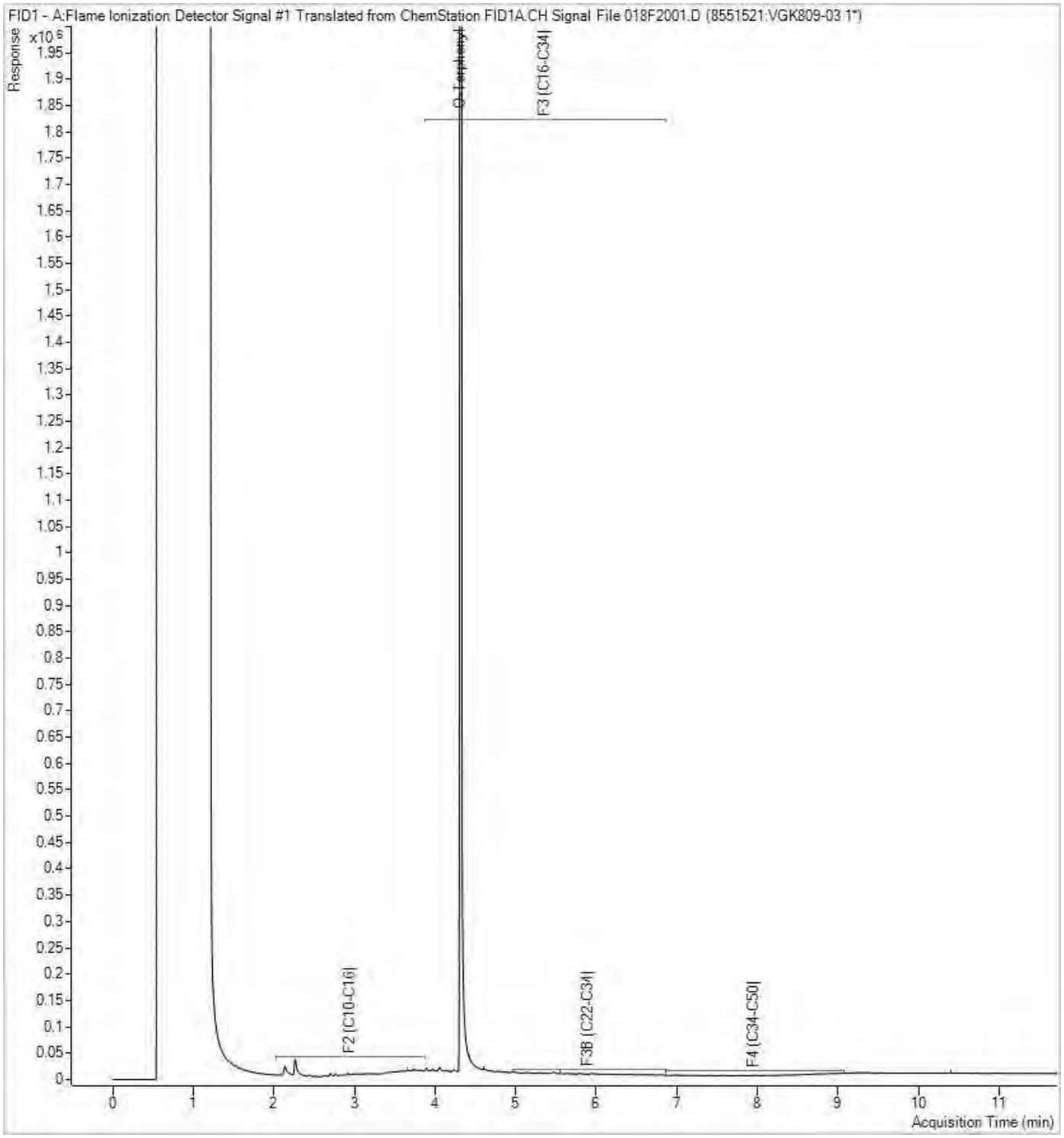


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16
Bureau Veritas Sample: VGK809

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON, ON
Client ID: BH102 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C369099
Report Date: 2023/03/16

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON, ON
Sampler Initials: CSH

Exceedance Summary Table – Reg153/04 T2-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH102 SS3A	VGK807-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
BH102 SS3A	VGK807-01	Sodium Adsorption Ratio	5.0	5.9		N/A
BH102 SS3A	VGK807-01	Acid Extractable Zinc (Zn)	340	750	5.0	ug/g
DUP023	VGK808-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
DUP023	VGK808-01	Sodium Adsorption Ratio	5.0	6.1		N/A
DUP023	VGK808-01	Acid Extractable Zinc (Zn)	340	730	5.0	ug/g

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Your C.O.C. #: 923799-04-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/21
Report #: R7555152
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C373368
Received: 2023/03/15, 15:10

Sample Matrix: Soil
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	6	N/A	2023/03/20	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	5	2023/03/17	2023/03/18	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2023/03/20	2023/03/20	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	6	N/A	2023/03/21		EPA 8260C m
Free (WAD) Cyanide	6	2023/03/17	2023/03/20	CAM SOP-00457	OMOE E3015 m
Conductivity	6	2023/03/20	2023/03/20	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	6	2023/03/17	2023/03/20	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	6	2023/03/17	2023/03/18	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	6	2023/03/17	2023/03/18	CAM SOP-00447	EPA 6020B m
Moisture	6	N/A	2023/03/17	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	4	2023/03/17	2023/03/17	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	2	2023/03/17	2023/03/18	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	6	2023/03/20	2023/03/20	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	6	N/A	2023/03/21	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	6	N/A	2023/03/18	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, MELCC, EPA, APHA.

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

Your Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Your C.O.C. #: 923799-04-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/21
Report #: R7555152
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C373368
Received: 2023/03/15, 15:10

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VHI668	VHI669	VHI670	VHI671		VHI672		
Sampling Date			2023/03/13 12:00	2023/03/13 12:00	2023/03/13 18:30	2023/03/13 18:30		2023/03/14 18:15		
COC Number			923799-04-01	923799-04-01	923799-04-01	923799-04-01		923799-04-01		
	UNITS	Criteria	BH106 SS3	BH106 SS4	BH107 SS3	BH107 SS4	QC Batch	BH105 SS2	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0	**13**	**8.3**	**22**	**6.4**	8555573	**10**		8555573
Inorganics										
Conductivity	mS/cm	0.7	**0.84**	**1.4**	**1.2**	**1.2**	8561583	0.69	0.002	8561583
Available (CaCl2) pH	pH	-	8.18	7.92	8.13	8.10	8562074	8.15		8562074
WAD Cyanide (Free)	ug/g	0.051	<0.01	<0.01	<0.01	<0.01	8559190	<0.01	0.01	8559190
Chromium (VI)	ug/g	8	<0.18	<0.18	<0.18	<0.18	8559025	<0.18	0.18	8559025
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5	0.062	0.52	0.079	0.65	8559502	0.063	0.050	8561632
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	<0.20	<0.20	0.23	8559134	<0.20	0.20	8559134
Acid Extractable Arsenic (As)	ug/g	18	3.5	3.5	3.9	4.0	8559134	3.3	1.0	8559134
Acid Extractable Barium (Ba)	ug/g	390	14	140	15	350	8559134	16	0.50	8559134
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	0.64	<0.20	0.66	8559134	<0.20	0.20	8559134
Acid Extractable Boron (B)	ug/g	120	6.7	16	7.7	21	8559134	7.5	5.0	8559134
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.2	<0.10	**1.3**	0.27	8559134	**1.3**	0.10	8559134
Acid Extractable Chromium (Cr)	ug/g	160	6.5	20	7.3	20	8559134	7.3	1.0	8559134
Acid Extractable Cobalt (Co)	ug/g	22	3.5	12	3.3	12	8559134	3.5	0.10	8559134
Acid Extractable Copper (Cu)	ug/g	140	18	29	20	13	8559134	19	0.50	8559134
Acid Extractable Lead (Pb)	ug/g	120	110	13	110	24	8559134	120	1.0	8559134
Acid Extractable Molybdenum (Mo	ug/g	6.9	0.52	0.96	0.64	1.0	8559134	0.64	0.50	8559134
Acid Extractable Nickel (Ni)	ug/g	100	7.9	26	8.6	26	8559134	8.4	0.50	8559134
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	<0.50	<0.50	<0.50	8559134	<0.50	0.50	8559134
Acid Extractable Silver (Ag)	ug/g	20	<0.20	<0.20	<0.20	<0.20	8559134	<0.20	0.20	8559134
Acid Extractable Thallium (Tl)	ug/g	1	0.091	0.11	0.10	0.089	8559134	0.095	0.050	8559134
Acid Extractable Uranium (U)	ug/g	23	0.46	0.61	0.52	0.66	8559134	0.47	0.050	8559134
Acid Extractable Vanadium (V)	ug/g	86	12	26	14	25	8559134	13	5.0	8559134
Acid Extractable Zinc (Zn)	ug/g	340	**700**	76	**710**	130	8559134	**750**	5.0	8559134
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	<0.050	<0.050	<0.050	8559134	<0.050	0.050	8559134

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VHI672			VHI673			VHI673		
Sampling Date			2023/03/14 18:15			2023/03/14 18:15			2023/03/14 18:15		
COC Number			923799-04-01			923799-04-01			923799-04-01		
	UNITS	Criteria	BH105 SS2 Lab-Dup	RDL	QC Batch	BH105 SS4	RDL	QC Batch	BH105 SS4 Lab-Dup	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	5.0				**7.7**		8555573			
Inorganics											
Conductivity	mS/cm	0.7				**0.77**	0.002	8561583	**0.82**	0.002	8561583
Available (CaCl2) pH	pH	-				7.96		8562074			
WAD Cyanide (Free)	ug/g	0.051				<0.01	0.01	8559190			
Chromium (VI)	ug/g	8				<0.18	0.18	8559025			
Metals											
Hot Water Ext. Boron (B)	ug/g	1.5	0.066	0.050	8561632	0.34	0.050	8559502			
Acid Extractable Antimony (Sb)	ug/g	7.5				0.22	0.20	8559134			
Acid Extractable Arsenic (As)	ug/g	18				4.0	1.0	8559134			
Acid Extractable Barium (Ba)	ug/g	390				110	0.50	8559134			
Acid Extractable Beryllium (Be)	ug/g	4				0.71	0.20	8559134			
Acid Extractable Boron (B)	ug/g	120				15	5.0	8559134			
Acid Extractable Cadmium (Cd)	ug/g	1.2				0.15	0.10	8559134			
Acid Extractable Chromium (Cr)	ug/g	160				22	1.0	8559134			
Acid Extractable Cobalt (Co)	ug/g	22				13	0.10	8559134			
Acid Extractable Copper (Cu)	ug/g	140				33	0.50	8559134			
Acid Extractable Lead (Pb)	ug/g	120				14	1.0	8559134			
Acid Extractable Molybdenum (Mo	ug/g	6.9				0.85	0.50	8559134			
Acid Extractable Nickel (Ni)	ug/g	100				29	0.50	8559134			
Acid Extractable Selenium (Se)	ug/g	2.4				<0.50	0.50	8559134			
Acid Extractable Silver (Ag)	ug/g	20				<0.20	0.20	8559134			
Acid Extractable Thallium (Tl)	ug/g	1				0.11	0.050	8559134			
Acid Extractable Uranium (U)	ug/g	23				0.60	0.050	8559134			
Acid Extractable Vanadium (V)	ug/g	86				28	5.0	8559134			
Acid Extractable Zinc (Zn)	ug/g	340				94	5.0	8559134			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VHI672			VHI673			VHI673		
Sampling Date			2023/03/14 18:15			2023/03/14 18:15			2023/03/14 18:15		
COC Number			923799-04-01			923799-04-01			923799-04-01		
	UNITS	Criteria	BH105 SS2 Lab-Dup	RDL	QC Batch	BH105 SS4	RDL	QC Batch	BH105 SS4 Lab-Dup	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	0.27				<0.050	0.050	8559134			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			VHI668	VHI669			VHI669		
Sampling Date			2023/03/13 12:00	2023/03/13 12:00			2023/03/13 12:00		
COC Number			923799-04-01	923799-04-01			923799-04-01		
	UNITS	Criteria	BH106 SS3	BH106 SS4	RDL	QC Batch	BH106 SS4 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	<0.0071	0.0071	8555831			
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	7.9	0.016	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Anthracene	ug/g	0.67	0.0054	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Benzo(a)anthracene	ug/g	0.5	0.0068	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Benzo(a)pyrene	ug/g	0.3	0.0066	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Benzo(b/j)fluoranthene	ug/g	0.78	0.011	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Benzo(g,h,i)perylene	ug/g	6.6	0.010	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Chrysene	ug/g	7	0.0094	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Fluoranthene	ug/g	0.69	0.034	<0.0050	0.0050	8557764	0.0058	0.0050	8557764
Fluorene	ug/g	62	0.0076	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.0056	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
1-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	0.0050	8557764	0.022 (1)	0.0050	8557764
2-Methylnaphthalene	ug/g	0.99	0.0062	<0.0050	0.0050	8557764	0.044 (1)	0.0050	8557764
Naphthalene	ug/g	0.6	0.0066	0.0056	0.0050	8557764	0.050 (1)	0.0050	8557764
Phenanthrene	ug/g	6.2	0.032	<0.0050	0.0050	8557764	0.0058	0.0050	8557764
Pyrene	ug/g	78	0.026	<0.0050	0.0050	8557764	<0.0050	0.0050	8557764
Surrogate Recovery (%)									
D10-Anthracene	%	-	100	93		8557764	102		8557764
D14-Terphenyl (FS)	%	-	100	96		8557764	105		8557764
D8-Acenaphthylene	%	-	91	82		8557764	89		8557764

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			VHI670	VHI671	VHI672	VHI673		
Sampling Date			2023/03/13 18:30	2023/03/13 18:30	2023/03/14 18:15	2023/03/14 18:15		
COC Number			923799-04-01	923799-04-01	923799-04-01	923799-04-01		
	UNITS	Criteria	BH107 SS3	BH107 SS4	BH105 SS2	BH105 SS4	RDL	QC Batch
Calculated Parameters								
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	<0.0071	<0.0071	<0.0071	0.0071	8555831
Polyaromatic Hydrocarbons								
Acenaphthene	ug/g	7.9	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Anthracene	ug/g	0.67	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Benzo(a)anthracene	ug/g	0.5	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Benzo(a)pyrene	ug/g	0.3	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Benzo(b/j)fluoranthene	ug/g	0.78	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Benzo(g,h,i)perylene	ug/g	6.6	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Chrysene	ug/g	7	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Fluoranthene	ug/g	0.69	0.0076	0.0074	<0.0050	<0.0050	0.0050	8557764
Fluorene	ug/g	62	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Indeno(1,2,3-cd)pyrene	ug/g	0.38	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
1-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
2-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Naphthalene	ug/g	0.6	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	8557764
Phenanthrene	ug/g	6.2	<0.0050	0.0086	<0.0050	<0.0050	0.0050	8557764
Pyrene	ug/g	78	0.0058	0.0057	<0.0050	<0.0050	0.0050	8557764
Surrogate Recovery (%)								
D10-Anthracene	%	-	97	97	96	97		8557764
D14-Terphenyl (FS)	%	-	96	98	95	99		8557764
D8-Acenaphthylene	%	-	82	89	84	87		8557764

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI668	VHI669	VHI670	VHI671		
Sampling Date			2023/03/13 12:00	2023/03/13 12:00	2023/03/13 18:30	2023/03/13 18:30		
COC Number			923799-04-01	923799-04-01	923799-04-01	923799-04-01		
	UNITS	Criteria	BH106 SS3	BH106 SS4	BH107 SS3	BH107 SS4	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	<0.050	<0.050	0.050	8555781
Volatile Organics								
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	<0.49	<0.49	0.49	8556815
Benzene	ug/g	0.21	<0.0060	0.019	<0.0060	0.0069	0.0060	8556815
Bromodichloromethane	ug/g	1.5	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Bromoform	ug/g	0.27	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Bromomethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Chlorobenzene	ug/g	2.4	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Chloroform	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Dibromochloromethane	ug/g	2.3	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,2-Dichlorobenzene	ug/g	1.2	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,3-Dichlorobenzene	ug/g	4.8	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,4-Dichlorobenzene	ug/g	0.083	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,1-Dichloroethane	ug/g	0.47	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	<0.049	<0.049	0.049	8556815
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	<0.040	<0.040	<0.040	0.040	8556815
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	<0.030	<0.030	0.030	8556815
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Ethylbenzene	ug/g	1.1	<0.010	0.31	<0.010	<0.010	0.010	8556815
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Hexane	ug/g	2.8	<0.040	0.46	<0.040	<0.040	0.040	8556815
Methylene Chloride(Dichloromethane	ug/g	0.1	<0.049	<0.049	<0.049	<0.049	0.049	8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI668	VHI669	VHI670	VHI671		
Sampling Date			2023/03/13 12:00	2023/03/13 12:00	2023/03/13 18:30	2023/03/13 18:30		
COC Number			923799-04-01	923799-04-01	923799-04-01	923799-04-01		
	UNITS	Criteria	BH106 SS3	BH106 SS4	BH107 SS3	BH107 SS4	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	<0.40	<0.40	<0.40	0.40	8556815
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	<0.40	<0.40	<0.40	0.40	8556815
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Styrene	ug/g	0.7	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Tetrachloroethylene	ug/g	0.28	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Toluene	ug/g	2.3	<0.020	<0.020	<0.020	<0.020	0.020	8556815
1,1,1-Trichloroethane	ug/g	0.38	<0.040	<0.040	<0.040	<0.040	0.040	8556815
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Trichloroethylene	ug/g	0.061	<0.010	<0.010	<0.010	<0.010	0.010	8556815
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	<0.040	<0.040	0.040	8556815
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	<0.019	<0.019	0.019	8556815
p+m-Xylene	ug/g	-	<0.020	0.061	<0.020	<0.020	0.020	8556815
o-Xylene	ug/g	-	<0.020	<0.020	<0.020	<0.020	0.020	8556815
Total Xylenes	ug/g	3.1	<0.020	0.061	<0.020	<0.020	0.020	8556815
F1 (C6-C10)	ug/g	55	<10	13	<10	<10	10	8556815
F1 (C6-C10) - BTEX	ug/g	55	<10	12	<10	<10	10	8556815
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	<10	<10	10	8557775
F3 (C16-C34 Hydrocarbons)	ug/g	300	61	<50	<50	<50	50	8557775
F4 (C34-C50 Hydrocarbons)	ug/g	2800	170	<50	<50	<50	50	8557775
Reached Baseline at C50	ug/g	-	Yes	Yes	Yes	Yes		8557775
Surrogate Recovery (%)								
o-Terphenyl	%	-	96	96	97	96		8557775
4-Bromofluorobenzene	%	-	91	92	90	90		8556815
D10-o-Xylene	%	-	104	102	106	123		8556815
D4-1,2-Dichloroethane	%	-	105	105	105	108		8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI668	VHI669	VHI670	VHI671		
Sampling Date			2023/03/13 12:00	2023/03/13 12:00	2023/03/13 18:30	2023/03/13 18:30		
COC Number			923799-04-01	923799-04-01	923799-04-01	923799-04-01		
	UNITS	**Criteria**	**BH106 SS3**	**BH106 SS4**	**BH107 SS3**	**BH107 SS4**	**RDL**	**QC Batch**
D8-Toluene	%	-	105	106	106	106		8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI671			VHI672	VHI673		
Sampling Date			2023/03/13 18:30			2023/03/14 18:15	2023/03/14 18:15		
COC Number			923799-04-01			923799-04-01	923799-04-01		
	UNITS	Criteria	BH107 SS4 Lab-Dup	RDL	QC Batch	BH105 SS2	BH105 SS4	RDL	QC Batch
Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/g	0.05				<0.050	<0.050	0.050	8555781
Volatile Organics									
Acetone (2-Propanone)	ug/g	16				<0.49	<0.49	0.49	8556815
Benzene	ug/g	0.21				<0.0060	0.13	0.0060	8556815
Bromodichloromethane	ug/g	1.5				<0.040	<0.040	0.040	8556815
Bromoform	ug/g	0.27				<0.040	<0.040	0.040	8556815
Bromomethane	ug/g	0.05				<0.040	<0.040	0.040	8556815
Carbon Tetrachloride	ug/g	0.05				<0.040	<0.040	0.040	8556815
Chlorobenzene	ug/g	2.4				<0.040	<0.040	0.040	8556815
Chloroform	ug/g	0.05				<0.040	<0.040	0.040	8556815
Dibromochloromethane	ug/g	2.3				<0.040	<0.040	0.040	8556815
1,2-Dichlorobenzene	ug/g	1.2				<0.040	<0.040	0.040	8556815
1,3-Dichlorobenzene	ug/g	4.8				<0.040	<0.040	0.040	8556815
1,4-Dichlorobenzene	ug/g	0.083				<0.040	<0.040	0.040	8556815
Dichlorodifluoromethane (FREON 12)	ug/g	16				<0.040	<0.040	0.040	8556815
1,1-Dichloroethane	ug/g	0.47				<0.040	<0.040	0.040	8556815
1,2-Dichloroethane	ug/g	0.05				<0.049	<0.049	0.049	8556815
1,1-Dichloroethylene	ug/g	0.05				<0.040	<0.040	0.040	8556815
cis-1,2-Dichloroethylene	ug/g	1.9				<0.040	<0.040	0.040	8556815
trans-1,2-Dichloroethylene	ug/g	0.084				<0.040	<0.040	0.040	8556815
1,2-Dichloropropane	ug/g	0.05				<0.040	<0.040	0.040	8556815
cis-1,3-Dichloropropene	ug/g	0.05				<0.030	<0.030	0.030	8556815
trans-1,3-Dichloropropene	ug/g	0.05				<0.040	<0.040	0.040	8556815
Ethylbenzene	ug/g	1.1				<0.010	<0.010	0.010	8556815
Ethylene Dibromide	ug/g	0.05				<0.040	<0.040	0.040	8556815
Hexane	ug/g	2.8				<0.040	<0.040	0.040	8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI671			VHI672	VHI673		
Sampling Date			2023/03/13 18:30			2023/03/14 18:15	2023/03/14 18:15		
COC Number			923799-04-01			923799-04-01	923799-04-01		
	UNITS	Criteria	BH107 SS4 Lab-Dup	RDL	QC Batch	BH105 SS2	BH105 SS4	RDL	QC Batch
Methylene Chloride(Dichloromethane	ug/g	0.1				<0.049	<0.049	0.049	8556815
Methyl Ethyl Ketone (2-Butanone)	ug/g	16				<0.40	<0.40	0.40	8556815
Methyl Isobutyl Ketone	ug/g	1.7				<0.40	<0.40	0.40	8556815
Methyl t-butyl ether (MTBE)	ug/g	0.75				<0.040	<0.040	0.040	8556815
Styrene	ug/g	0.7				<0.040	<0.040	0.040	8556815
1,1,1,2-Tetrachloroethane	ug/g	0.058				<0.040	<0.040	0.040	8556815
1,1,2,2-Tetrachloroethane	ug/g	0.05				<0.040	<0.040	0.040	8556815
Tetrachloroethylene	ug/g	0.28				<0.040	<0.040	0.040	8556815
Toluene	ug/g	2.3				<0.020	0.021	0.020	8556815
1,1,1-Trichloroethane	ug/g	0.38				<0.040	<0.040	0.040	8556815
1,1,2-Trichloroethane	ug/g	0.05				<0.040	<0.040	0.040	8556815
Trichloroethylene	ug/g	0.061				<0.010	<0.010	0.010	8556815
Trichlorofluoromethane (FREON 11)	ug/g	4				<0.040	<0.040	0.040	8556815
Vinyl Chloride	ug/g	0.02				<0.019	<0.019	0.019	8556815
p+m-Xylene	ug/g	-				<0.020	<0.020	0.020	8556815
o-Xylene	ug/g	-				<0.020	<0.020	0.020	8556815
Total Xylenes	ug/g	3.1				<0.020	<0.020	0.020	8556815
F1 (C6-C10)	ug/g	55				<10	<10	10	8556815
F1 (C6-C10) - BTEX	ug/g	55				<10	<10	10	8556815
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	8557775	<10	<10	10	8557775
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	8557775	<50	<50	50	8557775
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	8557775	<50	<50	50	8557775
Reached Baseline at C50	ug/g	-	Yes		8557775	Yes	Yes		8557775
Surrogate Recovery (%)									
o-Terphenyl	%	-	97		8557775	97	95		8557775
4-Bromofluorobenzene	%	-				91	90		8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHI671			VHI672	VHI673		
Sampling Date			2023/03/13 18:30			2023/03/14 18:15	2023/03/14 18:15		
COC Number			923799-04-01			923799-04-01	923799-04-01		
	UNITS	Criteria	BH107 SS4 Lab-Dup	RDL	QC Batch	BH105 SS2	BH105 SS4	RDL	QC Batch
D10-o-Xylene	%	-				101	126		8556815
D4-1,2-Dichloroethane	%	-				106	105		8556815
D8-Toluene	%	-				106	105		8556815

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		VHI668	VHI669	VHI670	VHI671	VHI672	VHI673		
Sampling Date		2023/03/13 12:00	2023/03/13 12:00	2023/03/13 18:30	2023/03/13 18:30	2023/03/14 18:15	2023/03/14 18:15		
COC Number		923799-04-01	923799-04-01	923799-04-01	923799-04-01	923799-04-01	923799-04-01		
	UNITS	**BH106 SS3**	**BH106 SS4**	**BH107 SS3**	**BH107 SS4**	**BH105 SS2**	**BH105 SS4**	**RDL**	**QC Batch**
Inorganics									
Moisture	%	8.4	12	6.9	11	7.4	11	1.0	8558195

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHI668
Sample ID: BH106 SS3
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8559502	2023/03/17	2023/03/18	Medhat Nasr
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/17	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas ID: VHI669
Sample ID: BH106 SS4
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8559502	2023/03/17	2023/03/18	Medhat Nasr
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/17	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas ID: VHI669 Dup
Sample ID: BH106 SS4
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/17	Jonghan Yoon

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHI670
Sample ID: BH107 SS3
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8559502	2023/03/17	2023/03/18	Medhat Nasr
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/17	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas ID: VHI671
Sample ID: BH107 SS4
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8559502	2023/03/17	2023/03/18	Medhat Nasr
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/17	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas ID: VHI671 Dup
Sample ID: BH107 SS4
Matrix: Soil

Collected: 2023/03/13
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHI672
Sample ID: BH105 SS2
Matrix: Soil

Collected: 2023/03/14
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8561632	2023/03/20	2023/03/20	Japneet Gill
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/18	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas ID: VHI672 Dup
Sample ID: BH105 SS2
Matrix: Soil

Collected: 2023/03/14
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	8561632	2023/03/20	2023/03/20	Japneet Gill

Bureau Veritas ID: VHI673
Sample ID: BH105 SS4
Matrix: Soil

Collected: 2023/03/14
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8555831	N/A	2023/03/20	Automated Statchk
Hot Water Extractable Boron	ICP	8559502	2023/03/17	2023/03/18	Medhat Nasr
1,3-Dichloropropene Sum	CALC	8555781	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8559190	2023/03/17	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8559025	2023/03/17	2023/03/20	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8557775	2023/03/17	2023/03/18	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	8559134	2023/03/17	2023/03/18	Daniel Teclu
Moisture	BAL	8558195	N/A	2023/03/17	Muhammad Chhaidan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8557764	2023/03/17	2023/03/18	Jonghan Yoon
pH CaCl2 EXTRACT	AT	8562074	2023/03/20	2023/03/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	8555573	N/A	2023/03/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8556815	N/A	2023/03/18	Dina Wang

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHI673 Dup
Sample ID: BH105 SS4
Matrix: Soil

Collected: 2023/03/14
Shipped:
Received: 2023/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	8561583	2023/03/20	2023/03/20	Gurparteek KAUR

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Cooler custody seal present and intact.

Sample VHI669 [BH106 SS4] : PAH ANALYSIS: Duplicate results exceeded RPD acceptance criteria due to the sample heterogeneity.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8556815	4-Bromofluorobenzene	2023/03/17	95	60 - 140	95	60 - 140	90	%		
8556815	D10-o-Xylene	2023/03/17	119	60 - 130	109	60 - 130	104	%		
8556815	D4-1,2-Dichloroethane	2023/03/17	106	60 - 140	106	60 - 140	106	%		
8556815	D8-Toluene	2023/03/17	107	60 - 140	108	60 - 140	105	%		
8557764	D10-Anthracene	2023/03/17	99	50 - 130	104	50 - 130	100	%		
8557764	D14-Terphenyl (FS)	2023/03/17	102	50 - 130	108	50 - 130	102	%		
8557764	D8-Acenaphthylene	2023/03/17	93	50 - 130	93	50 - 130	85	%		
8557775	o-Terphenyl	2023/03/17	91	60 - 130	92	60 - 130	99	%		
8556815	1,1,1,2-Tetrachloroethane	2023/03/18	89	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8556815	1,1,1-Trichloroethane	2023/03/18	94	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8556815	1,1,2,2-Tetrachloroethane	2023/03/18	89	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8556815	1,1,2-Trichloroethane	2023/03/18	104	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
8556815	1,1-Dichloroethane	2023/03/18	101	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
8556815	1,1-Dichloroethylene	2023/03/18	106	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
8556815	1,2-Dichlorobenzene	2023/03/18	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	1,2-Dichloroethane	2023/03/18	94	60 - 140	97	60 - 130	<0.049	ug/g	NC	50
8556815	1,2-Dichloropropane	2023/03/18	101	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
8556815	1,3-Dichlorobenzene	2023/03/18	88	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	1,4-Dichlorobenzene	2023/03/18	102	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
8556815	Acetone (2-Propanone)	2023/03/18	106	60 - 140	108	60 - 140	<0.49	ug/g	NC	50
8556815	Benzene	2023/03/18	93	60 - 140	96	60 - 130	<0.0060	ug/g	NC	50
8556815	Bromodichloromethane	2023/03/18	90	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
8556815	Bromoform	2023/03/18	79	60 - 140	81	60 - 130	<0.040	ug/g	NC	50
8556815	Bromomethane	2023/03/18	92	60 - 140	95	60 - 140	<0.040	ug/g	NC	50
8556815	Carbon Tetrachloride	2023/03/18	88	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8556815	Chlorobenzene	2023/03/18	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	Chloroform	2023/03/18	91	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	cis-1,2-Dichloroethylene	2023/03/18	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	cis-1,3-Dichloropropene	2023/03/18	86	60 - 140	88	60 - 130	<0.030	ug/g	NC	50
8556815	Dibromochloromethane	2023/03/18	82	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
8556815	Dichlorodifluoromethane (FREON 12)	2023/03/18	127	60 - 140	132	60 - 140	<0.040	ug/g	NC	50

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8556815	Ethylbenzene	2023/03/18	86	60 - 140	90	60 - 130	<0.010	ug/g	NC	50
8556815	Ethylene Dibromide	2023/03/18	85	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
8556815	F1 (C6-C10) - BTEX	2023/03/18					<10	ug/g	NC	30
8556815	F1 (C6-C10)	2023/03/18	94	60 - 140	101	80 - 120	<10	ug/g	NC	30
8556815	Hexane	2023/03/18	113	60 - 140	118	60 - 130	<0.040	ug/g	NC	50
8556815	Methyl Ethyl Ketone (2-Butanone)	2023/03/18	104	60 - 140	106	60 - 140	<0.40	ug/g	NC	50
8556815	Methyl Isobutyl Ketone	2023/03/18	94	60 - 140	97	60 - 130	<0.40	ug/g	NC	50
8556815	Methyl t-butyl ether (MTBE)	2023/03/18	93	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8556815	Methylene Chloride(Dichloromethane)	2023/03/18	92	60 - 140	96	60 - 130	<0.049	ug/g	NC	50
8556815	o-Xylene	2023/03/18	90	60 - 140	94	60 - 130	<0.020	ug/g	NC	50
8556815	p+m-Xylene	2023/03/18	86	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
8556815	Styrene	2023/03/18	93	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
8556815	Tetrachloroethylene	2023/03/18	82	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
8556815	Toluene	2023/03/18	92	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
8556815	Total Xylenes	2023/03/18					<0.020	ug/g	NC	50
8556815	trans-1,2-Dichloroethylene	2023/03/18	89	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
8556815	trans-1,3-Dichloropropene	2023/03/18	89	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8556815	Trichloroethylene	2023/03/18	90	60 - 140	94	60 - 130	<0.010	ug/g	NC	50
8556815	Trichlorofluoromethane (FREON 11)	2023/03/18	94	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8556815	Vinyl Chloride	2023/03/18	101	60 - 140	106	60 - 130	<0.019	ug/g	NC	50
8557764	1-Methylnaphthalene	2023/03/17	110	50 - 130	104	50 - 130	<0.0050	ug/g	125 (1)	40
8557764	2-Methylnaphthalene	2023/03/17	102	50 - 130	95	50 - 130	<0.0050	ug/g	159 (1)	40
8557764	Acenaphthene	2023/03/17	100	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8557764	Acenaphthylene	2023/03/17	100	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
8557764	Anthracene	2023/03/17	102	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8557764	Benzo(a)anthracene	2023/03/17	114	50 - 130	110	50 - 130	<0.0050	ug/g	NC	40
8557764	Benzo(a)pyrene	2023/03/17	97	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8557764	Benzo(b/j)fluoranthene	2023/03/17	96	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8557764	Benzo(g,h,i)perylene	2023/03/17	101	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
8557764	Benzo(k)fluoranthene	2023/03/17	95	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
8557764	Chrysene	2023/03/17	107	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8557764	Dibenzo(a,h)anthracene	2023/03/17	95	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8557764	Fluoranthene	2023/03/17	115	50 - 130	114	50 - 130	<0.0050	ug/g	15	40
8557764	Fluorene	2023/03/17	102	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
8557764	Indeno(1,2,3-cd)pyrene	2023/03/17	100	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8557764	Naphthalene	2023/03/17	97	50 - 130	89	50 - 130	<0.0050	ug/g	160 (1)	40
8557764	Phenanthrene	2023/03/17	100	50 - 130	102	50 - 130	<0.0050	ug/g	15	40
8557764	Pyrene	2023/03/17	111	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
8557775	F2 (C10-C16 Hydrocarbons)	2023/03/18	102	60 - 130	102	80 - 120	<10	ug/g	NC	30
8557775	F3 (C16-C34 Hydrocarbons)	2023/03/18	104	60 - 130	104	80 - 120	<50	ug/g	NC	30
8557775	F4 (C34-C50 Hydrocarbons)	2023/03/18	103	60 - 130	105	80 - 120	<50	ug/g	NC	30
8558195	Moisture	2023/03/17							0.80	20
8559025	Chromium (VI)	2023/03/20	50 (2)	70 - 130	96	80 - 120	<0.18	ug/g	NC	35
8559134	Acid Extractable Antimony (Sb)	2023/03/18	97	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8559134	Acid Extractable Arsenic (As)	2023/03/18	105	75 - 125	97	80 - 120	<1.0	ug/g	7.2	30
8559134	Acid Extractable Barium (Ba)	2023/03/18	NC	75 - 125	94	80 - 120	<0.50	ug/g	2.0	30
8559134	Acid Extractable Beryllium (Be)	2023/03/18	107	75 - 125	96	80 - 120	<0.20	ug/g	1.9	30
8559134	Acid Extractable Boron (B)	2023/03/18	99	75 - 125	95	80 - 120	<5.0	ug/g	NC	30
8559134	Acid Extractable Cadmium (Cd)	2023/03/18	105	75 - 125	96	80 - 120	<0.10	ug/g	NC	30
8559134	Acid Extractable Chromium (Cr)	2023/03/18	106	75 - 125	101	80 - 120	<1.0	ug/g	1.0	30
8559134	Acid Extractable Cobalt (Co)	2023/03/18	107	75 - 125	101	80 - 120	<0.10	ug/g	4.0	30
8559134	Acid Extractable Copper (Cu)	2023/03/18	NC	75 - 125	100	80 - 120	<0.50	ug/g	1.5	30
8559134	Acid Extractable Lead (Pb)	2023/03/18	110	75 - 125	99	80 - 120	<1.0	ug/g	1.5	30
8559134	Acid Extractable Mercury (Hg)	2023/03/18	112	75 - 125	103	80 - 120	<0.050	ug/g		
8559134	Acid Extractable Molybdenum (Mo)	2023/03/18	110	75 - 125	97	80 - 120	<0.50	ug/g	NC	30
8559134	Acid Extractable Nickel (Ni)	2023/03/18	106	75 - 125	99	80 - 120	<0.50	ug/g	1.0	30
8559134	Acid Extractable Selenium (Se)	2023/03/18	107	75 - 125	94	80 - 120	<0.50	ug/g	NC	30
8559134	Acid Extractable Silver (Ag)	2023/03/18	113	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
8559134	Acid Extractable Thallium (Tl)	2023/03/18	112	75 - 125	101	80 - 120	<0.050	ug/g	11	30
8559134	Acid Extractable Uranium (U)	2023/03/18	112	75 - 125	99	80 - 120	<0.050	ug/g	2.7	30
8559134	Acid Extractable Vanadium (V)	2023/03/18	NC	75 - 125	96	80 - 120	<5.0	ug/g	0.48	30
8559134	Acid Extractable Zinc (Zn)	2023/03/18	NC	75 - 125	101	80 - 120	<5.0	ug/g	0.91	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8559190	WAD Cyanide (Free)	2023/03/20	94	75 - 125	103	80 - 120	<0.01	ug/g	NC	35
8559502	Hot Water Ext. Boron (B)	2023/03/18	105	75 - 125	97	75 - 125	<0.050	ug/g	11	40
8561583	Conductivity	2023/03/20			105	90 - 110	<0.002	mS/cm	7.1	10
8561632	Hot Water Ext. Boron (B)	2023/03/20	110	75 - 125	105	75 - 125	<0.050	ug/g	4.9	40
8562074	Available (CaCl2) pH	2023/03/20			100	97 - 103			0.080	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.

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.

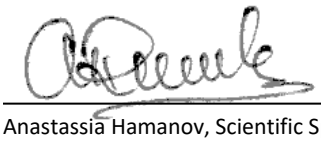
(2) The matrix spike recovery was below the lower control limit. This may be due to the sample matrix. The sample was re-analyzed with the same results

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free 800-563-6266 Fax:(905) 817-5777 www.bvna.com

Page 1 of 1

15-Mar-23 15:10
Marijane Cruz
C373368

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Only:
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C20582	Bottle Order #:
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:		923799
Address:	1 Banigan Drive Toronto ON M4H 1G3	Address:		Project:	22-282 JDK ENV-1977	Project Manager:
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Project Name:		COC #:
Email:	llevesque@groundedeng.ca, fmaxman@groundedeng.ca	Email:	llevesque@groundedeng.ca, fmaxman@groundedeng.ca	Site #:	2072 Lakeshore Road, Burlingto	C#923799-04-01
				Sampled By:	CSH	Marijane Cruz

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [ ] Table 1 [X] Res/Park [ ] Medium/Fine
- [X] Table 2 [ ] Ind/Comm [ ] Coarse
- [ ] Table 3 [ ] Agri/Other [X] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO [ ] Reg 406 Table ___
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? Y

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [V]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 PAHs (Soil)	O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	O.Reg 153 VOCs by HS (Soil)	# of Bottles	Comments
1		BH106 SS3	23/03/13	1200	SOIL	X	X	X	X	5	limited sample
2		BH106 SS4	23/03/13	1200	SOIL	X	X	X	X	5	limited sample
3		BH107 SS3	23/03/13	B30		X	X	X	X	5	limited sample
4		BH107 SS4	↓	↓	↓	X	X	X	X	5	limited sample
5		BH105 SS2	23/03/14	18:15		X	X	X	X	5	
6		BH105 SS4	11	11		X	X	X	X	5	
7											
8											
9											
10											

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23/03/14	18:30	Raman RAMANDEEP KAUR	2023/03/15	15:10	

Laboratory Use Only
Time Sensitive
Temperature (°C) on Recei: 3 2 3
Custody Seal Present: Yes ✓ / No
Intact: Yes ✓ / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

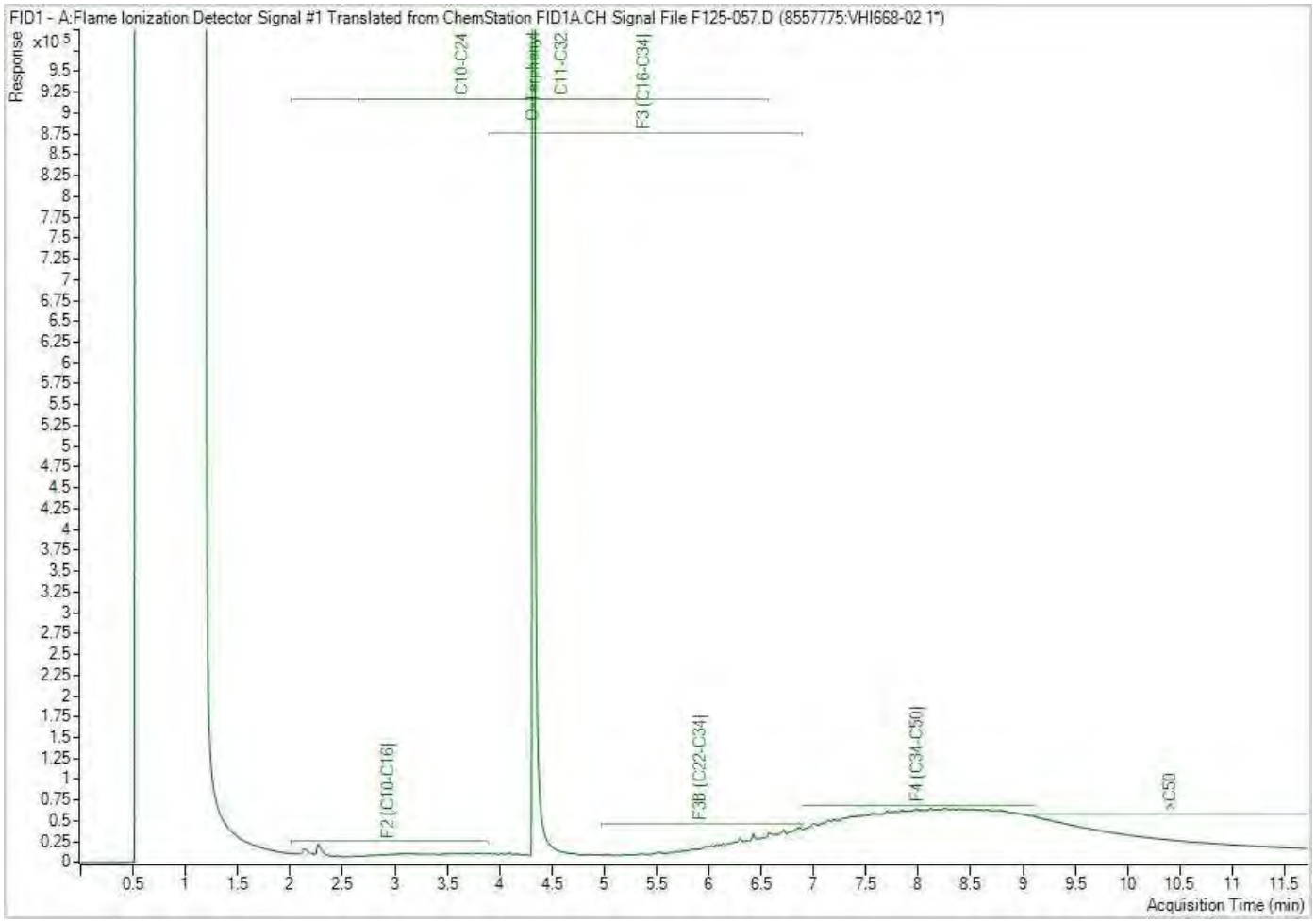
Bureau Veritas Canada (2019) Inc.

BV

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI668

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH106 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

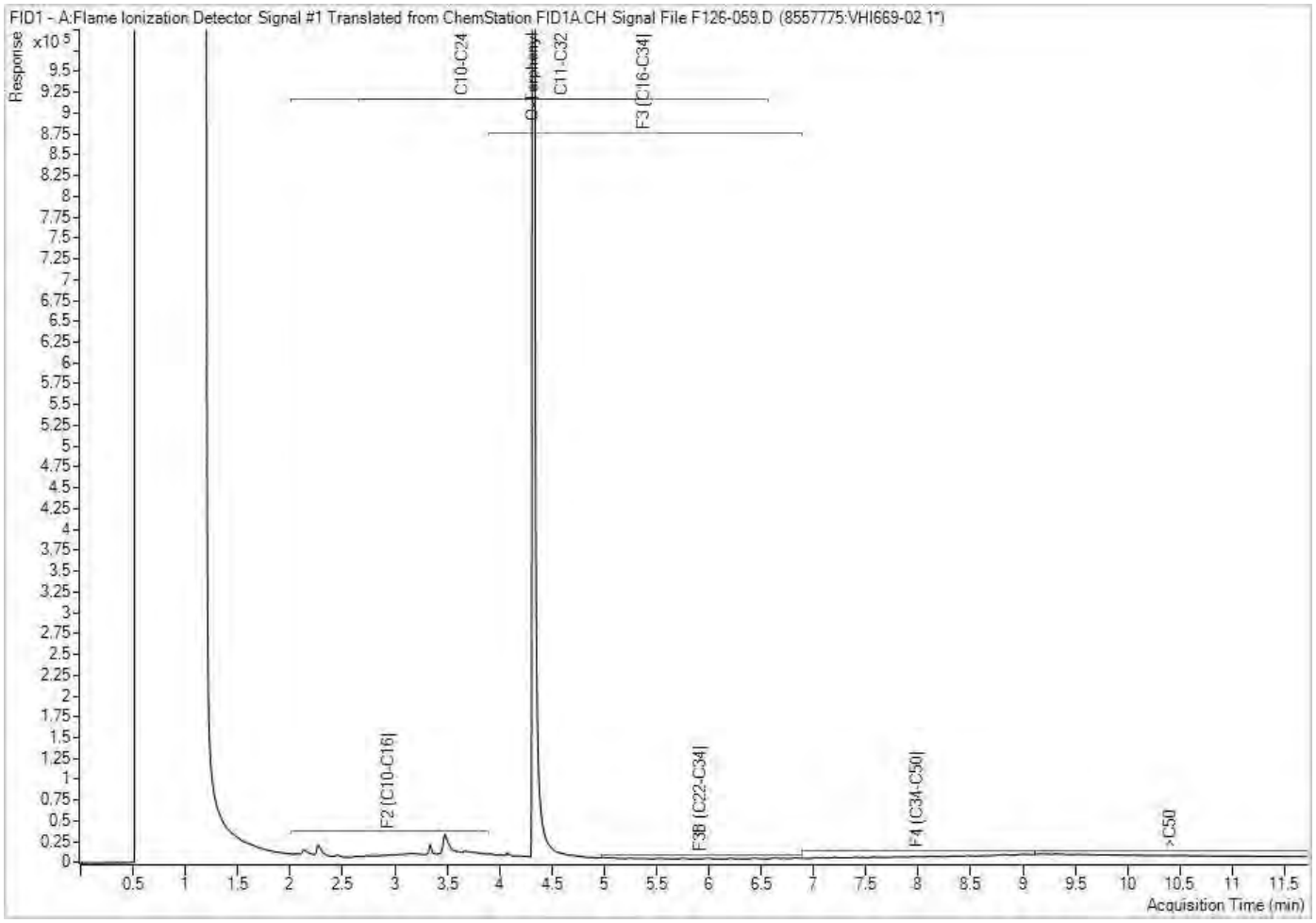


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI669

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH106 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

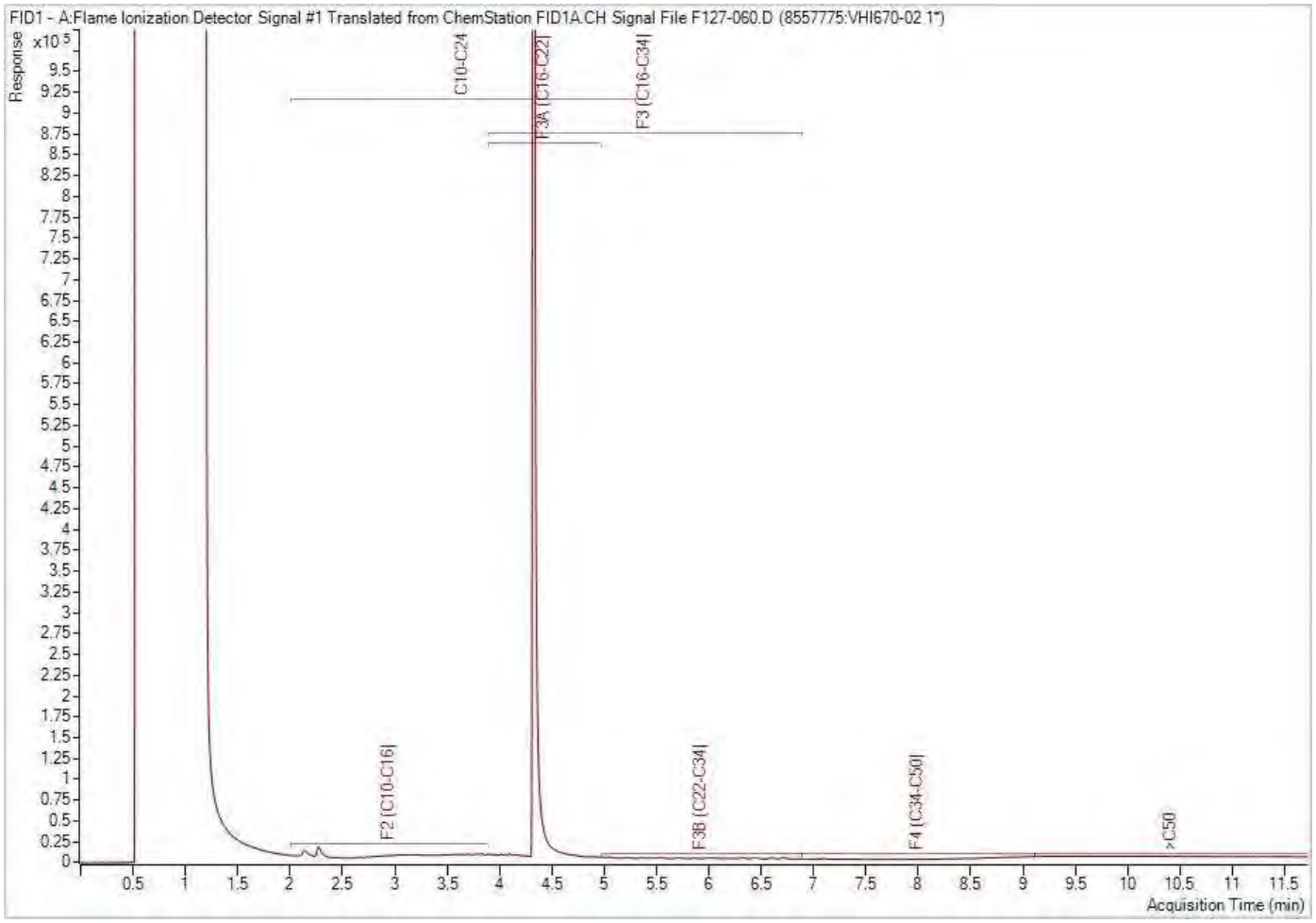


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI670

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH107 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

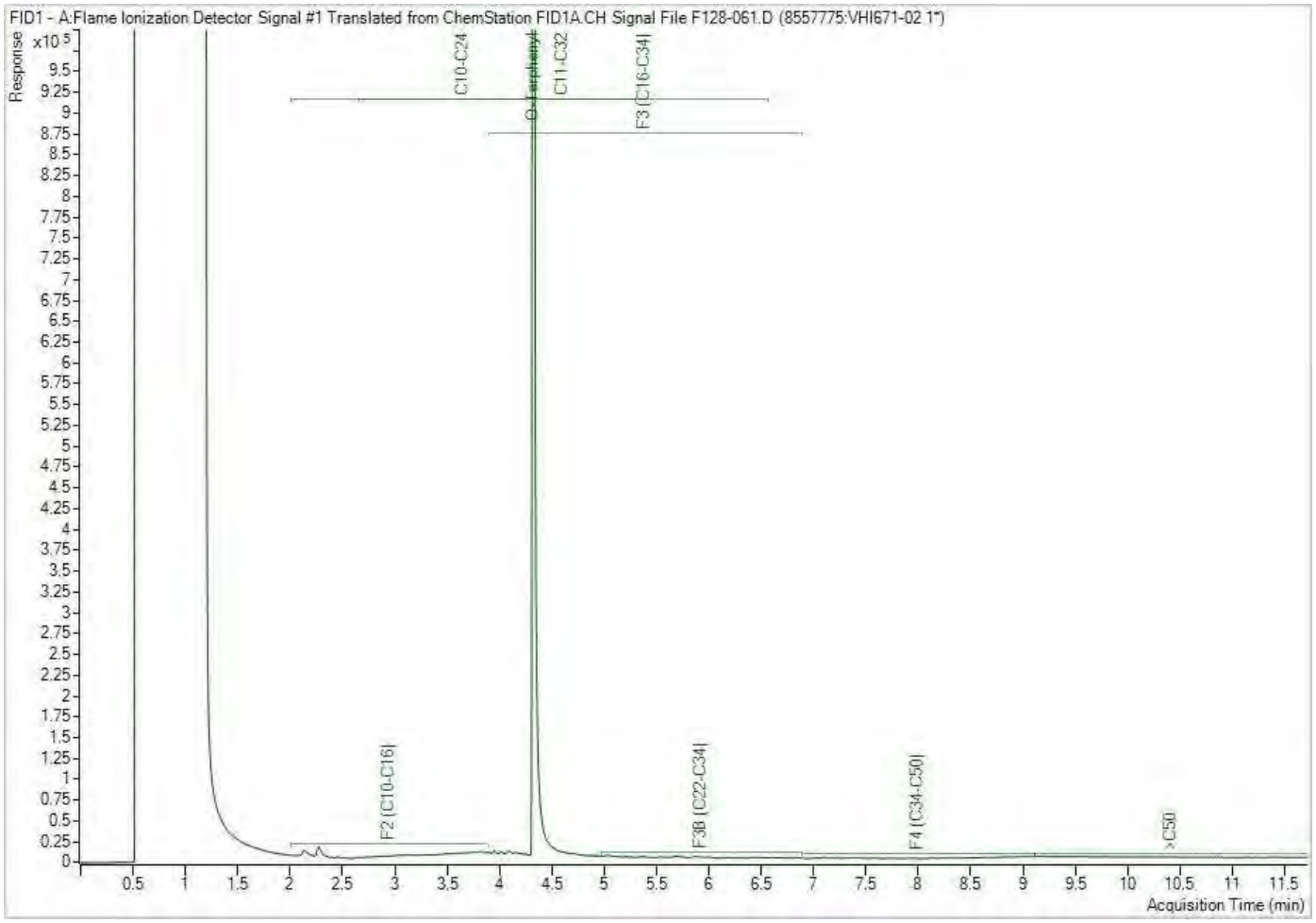


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI671

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH107 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

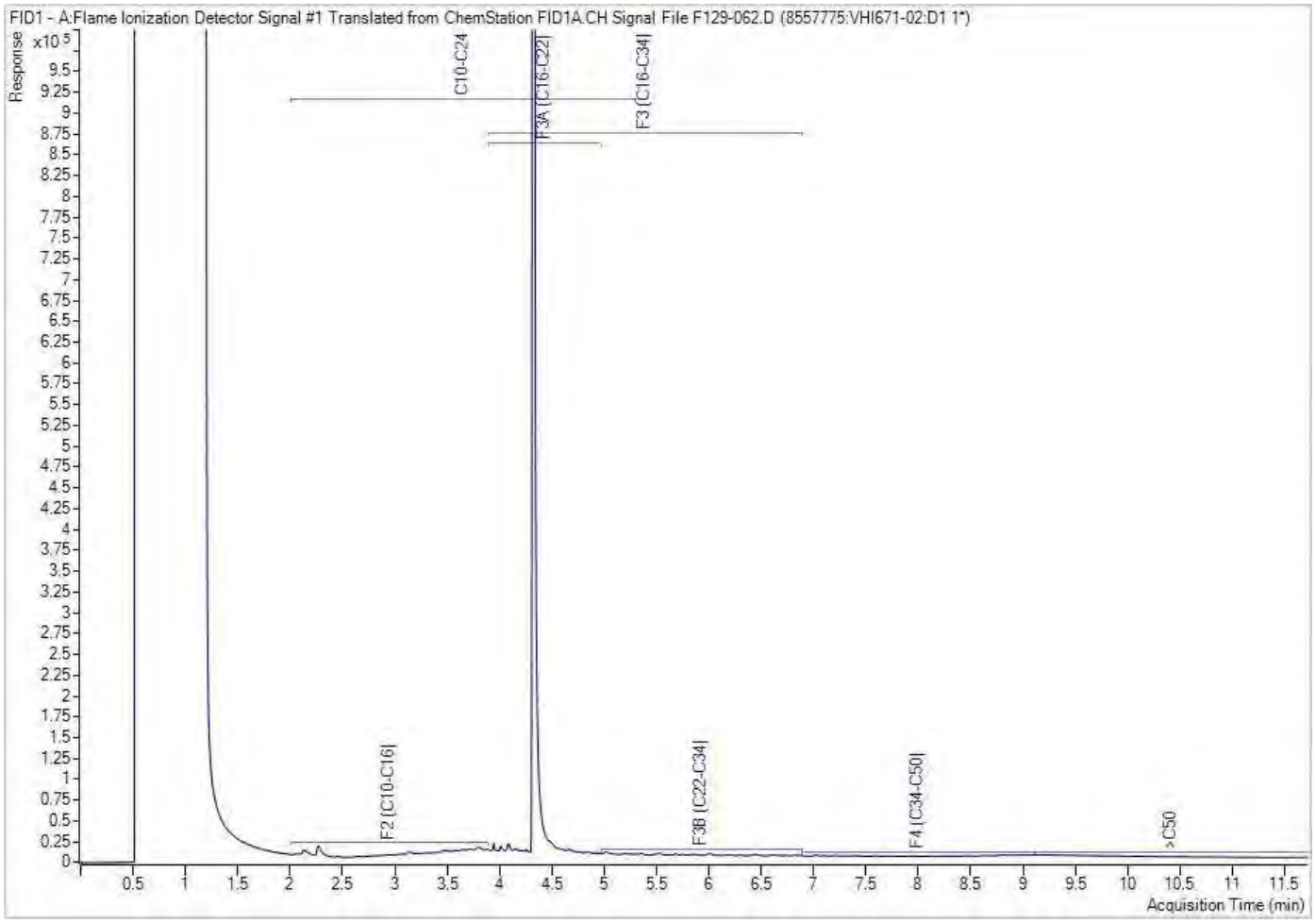


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI671 Lab-Dup

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH107 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

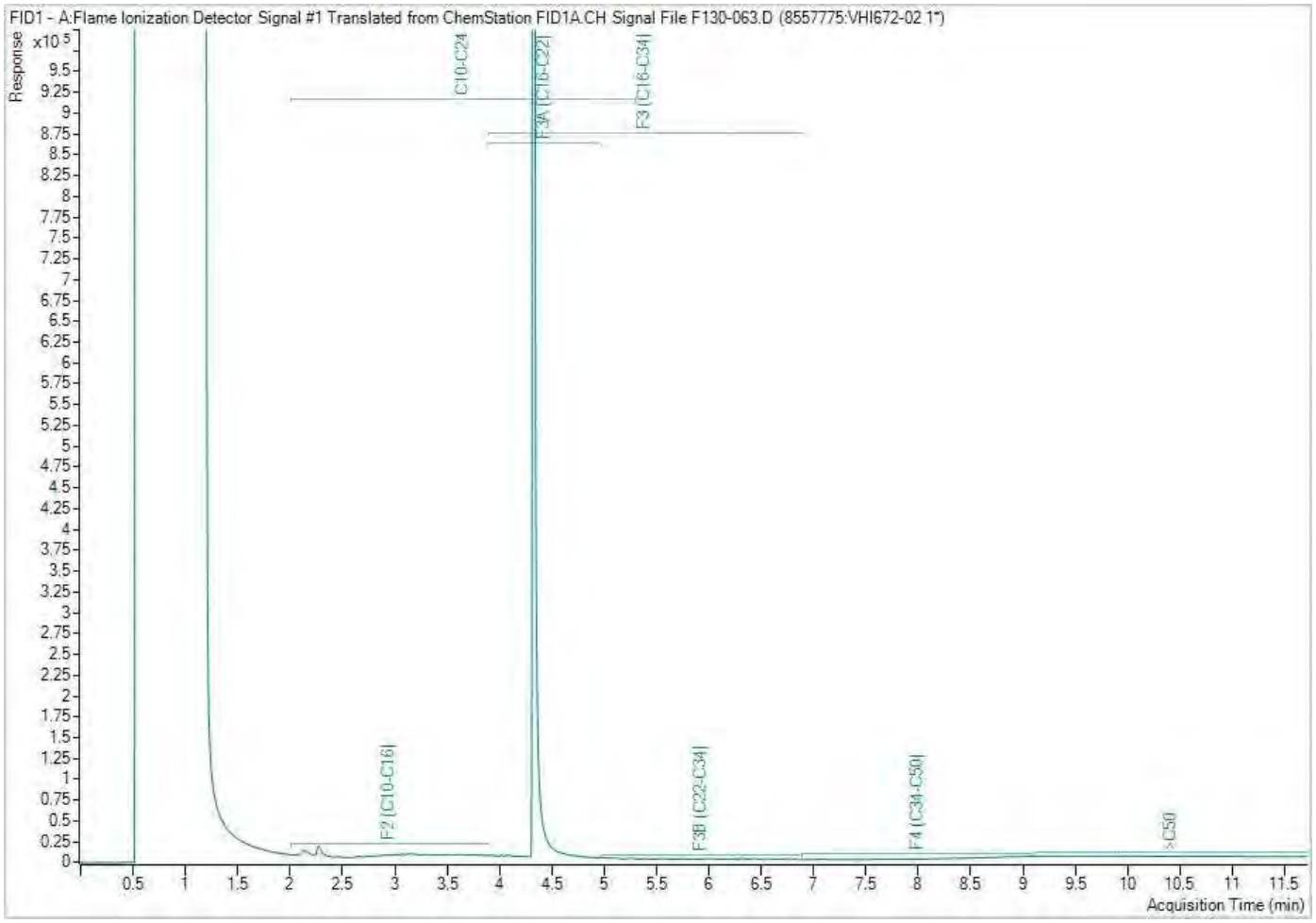


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI672

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH105 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

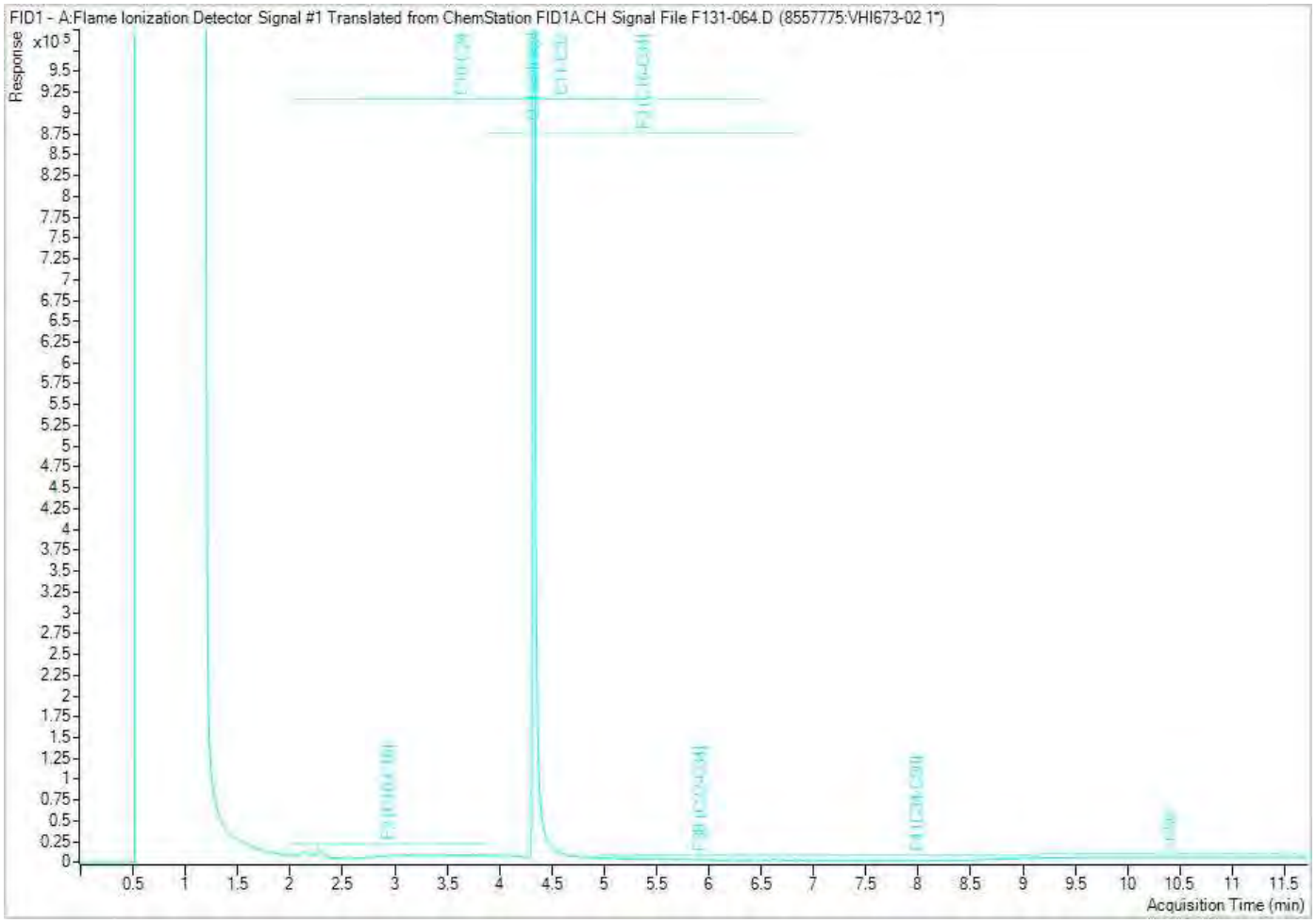


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21
Bureau Veritas Sample: VHI673

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 LAKESHORE ROAD, BURLINGTON
Client ID: BH105 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C373368
Report Date: 2023/03/21

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 LAKESHORE ROAD, BURLINGTON
Sampler Initials: CSH

Exceedance Summary Table – Reg153/04 T2-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH106 SS3	VHI668-01	Conductivity	0.7	0.84	0.002	mS/cm
BH106 SS3	VHI668-01	Sodium Adsorption Ratio	5.0	13		N/A
BH106 SS3	VHI668-01	Acid Extractable Zinc (Zn)	340	700	5.0	ug/g
BH106 SS4	VHI669-01	Conductivity	0.7	1.4	0.002	mS/cm
BH106 SS4	VHI669-01	Sodium Adsorption Ratio	5.0	8.3		N/A
BH107 SS3	VHI670-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
BH107 SS3	VHI670-01	Conductivity	0.7	1.2	0.002	mS/cm
BH107 SS3	VHI670-01	Sodium Adsorption Ratio	5.0	22		N/A
BH107 SS3	VHI670-01	Acid Extractable Zinc (Zn)	340	710	5.0	ug/g
BH107 SS4	VHI671-01	Conductivity	0.7	1.2	0.002	mS/cm
BH107 SS4	VHI671-01	Sodium Adsorption Ratio	5.0	6.4		N/A
BH105 SS2	VHI672-01	Acid Extractable Cadmium (Cd)	1.2	1.3	0.10	ug/g
BH105 SS2	VHI672-01	Sodium Adsorption Ratio	5.0	10		N/A
BH105 SS2	VHI672-01	Acid Extractable Zinc (Zn)	340	750	5.0	ug/g
BH105 SS4	VHI673-01	Conductivity	0.7	0.77	0.002	mS/cm
BH105 SS4	VHI673-01-Lab Dup	Conductivity	0.7	0.82	0.002	mS/cm
BH105 SS4	VHI673-01	Sodium Adsorption Ratio	5.0	7.7		N/A

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 915722-28-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/22
Report #: R7556944
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C376739
Received: 2023/03/17, 15:14

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2023/03/21	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	2	2023/03/21	2023/03/21	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2023/03/21		EPA 8260C m
Free (WAD) Cyanide	1	2023/03/20	2023/03/20	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	2023/03/20	2023/03/21	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2023/03/21	2023/03/21	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2023/03/20	2023/03/21	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2023/03/19	2023/03/20	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	2	2023/03/21	2023/03/21	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2023/03/18	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	2	2023/03/19	2023/03/21	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	2	2023/03/21	2023/03/21	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2023/03/22	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2023/03/20	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, MELCC, EPA, APHA.

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.

Your Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 915722-28-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/22
Report #: R7556944
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C376739

Received: 2023/03/17, 15:14

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) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VHZ836			VHZ836			VHZ837		
Sampling Date			2023/03/15 19:15			2023/03/15 19:15			2023/03/15 19:15		
COC Number			915722-28-01			915722-28-01			915722-28-01		
	UNITS	Criteria	BH103 SS3A	RDL	QC Batch	BH103 SS3A Lab-Dup	RDL	QC Batch	BH103 SS4	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	5.0	2.2		8559379				0.49		8559379
Inorganics											
Conductivity	mS/cm	0.7	0.24	0.002	8564058				0.22	0.002	8564058
Available (CaCl2) pH	pH	-	7.83		8563702				7.78		8563702
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	8562577	<0.01	0.01	8562577	<0.01	0.01	8561696
Chromium (VI)	ug/g	8	<0.18	0.18	8562122				<0.18	0.18	8562122
Metals											
Hot Water Ext. Boron (B)	ug/g	1.5	<0.050	0.050	8563767				0.37	0.050	8563767
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	8564544				0.28	0.20	8564473
Acid Extractable Arsenic (As)	ug/g	18	1.5	1.0	8564544				4.6	1.0	8564473
Acid Extractable Barium (Ba)	ug/g	390	17	0.50	8564544				96	0.50	8564473
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	0.20	8564544				0.67	0.20	8564473
Acid Extractable Boron (B)	ug/g	120	<5.0	5.0	8564544				13	5.0	8564473
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	8564544				<0.10	0.10	8564473
Acid Extractable Chromium (Cr)	ug/g	160	6.2	1.0	8564544				23	1.0	8564473
Acid Extractable Cobalt (Co)	ug/g	22	3.4	0.10	8564544				13	0.10	8564473
Acid Extractable Copper (Cu)	ug/g	140	9.9	0.50	8564544				32	0.50	8564473
Acid Extractable Lead (Pb)	ug/g	120	3.9	1.0	8564544				10	1.0	8564473
Acid Extractable Molybdenum (Mo	ug/g	6.9	<0.50	0.50	8564544				0.77	0.50	8564473
Acid Extractable Nickel (Ni)	ug/g	100	6.9	0.50	8564544				29	0.50	8564473
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	8564544				<0.50	0.50	8564473
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	8564544				<0.20	0.20	8564473
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.050	8564544				0.11	0.050	8564473
Acid Extractable Uranium (U)	ug/g	23	0.28	0.050	8564544				0.66	0.050	8564473
Acid Extractable Vanadium (V)	ug/g	86	13	5.0	8564544				29	5.0	8564473
Acid Extractable Zinc (Zn)	ug/g	340	16	5.0	8564544				64	5.0	8564473

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			VHZ836			VHZ836			VHZ837		
Sampling Date			2023/03/15 19:15			2023/03/15 19:15			2023/03/15 19:15		
COC Number			915722-28-01			915722-28-01			915722-28-01		
	UNITS	Criteria	BH103 SS3A	RDL	QC Batch	BH103 SS3A Lab-Dup	RDL	QC Batch	BH103 SS4	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	8564544				<0.050	0.050	8564473

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			VHZ835	VHZ837			VHZ837		
Sampling Date			2023/03/15 19:15	2023/03/15 19:15			2023/03/15 19:15		
COC Number			915722-28-01	915722-28-01			915722-28-01		
	UNITS	Criteria	BH103 SS2	BH103 SS4	RDL	QC Batch	BH103 SS4 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	<0.0071	0.0071	8559649			
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	7.9	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Anthracene	ug/g	0.67	0.013	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Benzo(a)anthracene	ug/g	0.5	0.068	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Benzo(a)pyrene	ug/g	0.3	0.067	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Benzo(b/j)fluoranthene	ug/g	0.78	0.085	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Benzo(g,h,i)perylene	ug/g	6.6	0.037	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Benzo(k)fluoranthene	ug/g	0.78	0.028	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Chrysene	ug/g	7	0.071	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Dibenzo(a,h)anthracene	ug/g	0.1	0.010	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Fluoranthene	ug/g	0.69	0.14	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Fluorene	ug/g	62	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.042	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
1-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
2-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Naphthalene	ug/g	0.6	<0.0050	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Phenanthrene	ug/g	6.2	0.053	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Pyrene	ug/g	78	0.12	<0.0050	0.0050	8561090	<0.0050	0.0050	8561090
Surrogate Recovery (%)									
D10-Anthracene	%	-	98	103		8561090	102		8561090
D14-Terphenyl (FS)	%	-	93	95		8561090	93		8561090
D8-Acenaphthylene	%	-	102	105		8561090	106		8561090

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHZ835	VHZ837		
Sampling Date			2023/03/15 19:15	2023/03/15 19:15		
COC Number			915722-28-01	915722-28-01		
	UNITS	Criteria	BH103 SS2	BH103 SS4	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	8558098
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	0.49	8560835
Benzene	ug/g	0.21	<0.0060	<0.0060	0.0060	8560835
Bromodichloromethane	ug/g	1.5	<0.040	<0.040	0.040	8560835
Bromoform	ug/g	0.27	<0.040	<0.040	0.040	8560835
Bromomethane	ug/g	0.05	<0.040	<0.040	0.040	8560835
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	0.040	8560835
Chlorobenzene	ug/g	2.4	<0.040	<0.040	0.040	8560835
Chloroform	ug/g	0.05	<0.040	<0.040	0.040	8560835
Dibromochloromethane	ug/g	2.3	<0.040	<0.040	0.040	8560835
1,2-Dichlorobenzene	ug/g	1.2	<0.040	<0.040	0.040	8560835
1,3-Dichlorobenzene	ug/g	4.8	<0.040	<0.040	0.040	8560835
1,4-Dichlorobenzene	ug/g	0.083	<0.040	<0.040	0.040	8560835
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	0.040	8560835
1,1-Dichloroethane	ug/g	0.47	<0.040	<0.040	0.040	8560835
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	0.049	8560835
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	0.040	8560835
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	<0.040	0.040	8560835
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	<0.040	0.040	8560835
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	0.040	8560835
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	8560835
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	8560835
Ethylbenzene	ug/g	1.1	<0.010	<0.010	0.010	8560835
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	0.040	8560835
Hexane	ug/g	2.8	<0.040	<0.040	0.040	8560835
Methylene Chloride(Dichloromethane	ug/g	0.1	<0.049	<0.049	0.049	8560835
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	<0.40	0.40	8560835

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VHZ835	VHZ837		
Sampling Date			2023/03/15 19:15	2023/03/15 19:15		
COC Number			915722-28-01	915722-28-01		
	UNITS	Criteria	BH103 SS2	BH103 SS4	RDL	QC Batch
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	<0.40	0.40	8560835
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	<0.040	0.040	8560835
Styrene	ug/g	0.7	<0.040	<0.040	0.040	8560835
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	<0.040	0.040	8560835
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	0.040	8560835
Tetrachloroethylene	ug/g	0.28	<0.040	<0.040	0.040	8560835
Toluene	ug/g	2.3	<0.020	<0.020	0.020	8560835
1,1,1-Trichloroethane	ug/g	0.38	<0.040	<0.040	0.040	8560835
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	0.040	8560835
Trichloroethylene	ug/g	0.061	<0.010	<0.010	0.010	8560835
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	0.040	8560835
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	0.019	8560835
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	8560835
o-Xylene	ug/g	-	<0.020	<0.020	0.020	8560835
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	8560835
F1 (C6-C10)	ug/g	55	<10	<10	10	8560835
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	8560835
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	8561086
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	8561086
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	8561086
Reached Baseline at C50	ug/g	-	Yes	Yes		8561086
Surrogate Recovery (%)						
o-Terphenyl	%	-	84	84		8561086
4-Bromofluorobenzene	%	-	92	89		8560835
D10-o-Xylene	%	-	96	100		8560835
D4-1,2-Dichloroethane	%	-	105	105		8560835
D8-Toluene	%	-	96	98		8560835

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		VHZ835		VHZ836		VHZ837		
Sampling Date		2023/03/15 19:15		2023/03/15 19:15		2023/03/15 19:15		
COC Number		915722-28-01		915722-28-01		915722-28-01		
	UNITS	BH103 SS2	QC Batch	BH103 SS3A	QC Batch	BH103 SS4	RDL	QC Batch
Inorganics								
Moisture	%	18	8560657	19	8560563	14	1.0	8560657

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHZ835
Sample ID: BH103 SS2
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8559649	N/A	2023/03/21	Automated Statchk
1,3-Dichloropropene Sum	CALC	8558098	N/A	2023/03/21	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8561086	2023/03/19	2023/03/20	Emir Danisman
Moisture	BAL	8560657	N/A	2023/03/18	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8561090	2023/03/19	2023/03/21	Mitesh Raj
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8560835	N/A	2023/03/20	Rebecca McClean

Bureau Veritas ID: VHZ836
Sample ID: BH103 SS3A
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	8563767	2023/03/21	2023/03/21	Japneet Gill
Free (WAD) Cyanide	TECH	8562577	2023/03/20	2023/03/21	Kruti Jitesh Patel
Conductivity	AT	8564058	2023/03/21	2023/03/21	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8562122	2023/03/20	2023/03/21	Surleen Kaur Romana
Acid Extractable Metals by ICPMS	ICP/MS	8564544	2023/03/21	2023/03/21	Azita Fazaeli
Moisture	BAL	8560563	N/A	2023/03/18	Rajkumar Patel
pH CaCl2 EXTRACT	AT	8563702	2023/03/21	2023/03/21	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	8559379	N/A	2023/03/22	Automated Statchk

Bureau Veritas ID: VHZ836 Dup
Sample ID: BH103 SS3A
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	8562577	2023/03/20	2023/03/21	Kruti Jitesh Patel

Bureau Veritas ID: VHZ837
Sample ID: BH103 SS4
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8559649	N/A	2023/03/21	Automated Statchk
Hot Water Extractable Boron	ICP	8563767	2023/03/21	2023/03/21	Japneet Gill
1,3-Dichloropropene Sum	CALC	8558098	N/A	2023/03/21	Automated Statchk
Free (WAD) Cyanide	TECH	8561696	2023/03/20	2023/03/20	Kruti Jitesh Patel
Conductivity	AT	8564058	2023/03/21	2023/03/21	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	8562122	2023/03/20	2023/03/21	Surleen Kaur Romana
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	8561086	2023/03/19	2023/03/20	Emir Danisman
Acid Extractable Metals by ICPMS	ICP/MS	8564473	2023/03/21	2023/03/21	Indira HarryPaul
Moisture	BAL	8560657	N/A	2023/03/18	Simrat Bhathal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8561090	2023/03/19	2023/03/21	Mitesh Raj
pH CaCl2 EXTRACT	AT	8563702	2023/03/21	2023/03/21	Taslima Aktar

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VHZ837
Sample ID: BH103 SS4
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Sodium Adsorption Ratio (SAR)	CALC/MET	8559379	N/A	2023/03/22	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8560835	N/A	2023/03/20	Rebecca McClean

Bureau Veritas ID: VHZ837 Dup
Sample ID: BH103 SS4
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	8561090	2023/03/19	2023/03/21	Mitesh Raj

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

QUALITY ASSURANCE REPORT

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8560835	4-Bromofluorobenzene	2023/03/20	98	60 - 140	97	60 - 140	94	%		
8560835	D10-o-Xylene	2023/03/20	103	60 - 130	102	60 - 130	99	%		
8560835	D4-1,2-Dichloroethane	2023/03/20	104	60 - 140	96	60 - 140	103	%		
8560835	D8-Toluene	2023/03/20	101	60 - 140	104	60 - 140	98	%		
8561086	o-Terphenyl	2023/03/20	77	60 - 130	77	60 - 130	81	%		
8561090	D10-Anthracene	2023/03/21	96	50 - 130	107	50 - 130	106	%		
8561090	D14-Terphenyl (FS)	2023/03/21	94	50 - 130	101	50 - 130	96	%		
8561090	D8-Acenaphthylene	2023/03/21	101	50 - 130	112	50 - 130	109	%		
8560563	Moisture	2023/03/18							3.2	20
8560657	Moisture	2023/03/18							2.3	20
8560835	1,1,1,2-Tetrachloroethane	2023/03/20	95	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8560835	1,1,1-Trichloroethane	2023/03/20	100	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8560835	1,1,2,2-Tetrachloroethane	2023/03/20	91	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
8560835	1,1,2-Trichloroethane	2023/03/20	99	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8560835	1,1-Dichloroethane	2023/03/20	92	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8560835	1,1-Dichloroethylene	2023/03/20	99	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8560835	1,2-Dichlorobenzene	2023/03/20	93	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8560835	1,2-Dichloroethane	2023/03/20	94	60 - 140	88	60 - 130	<0.049	ug/g	NC	50
8560835	1,2-Dichloropropane	2023/03/20	92	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
8560835	1,3-Dichlorobenzene	2023/03/20	95	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
8560835	1,4-Dichlorobenzene	2023/03/20	109	60 - 140	116	60 - 130	<0.040	ug/g	NC	50
8560835	Acetone (2-Propanone)	2023/03/20	99	60 - 140	87	60 - 140	<0.49	ug/g	NC	50
8560835	Benzene	2023/03/20	90	60 - 140	90	60 - 130	<0.0060	ug/g	NC	50
8560835	Bromodichloromethane	2023/03/20	97	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8560835	Bromoform	2023/03/20	92	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
8560835	Bromomethane	2023/03/20	98	60 - 140	92	60 - 140	<0.040	ug/g	NC	50
8560835	Carbon Tetrachloride	2023/03/20	98	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
8560835	Chlorobenzene	2023/03/20	93	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8560835	Chloroform	2023/03/20	96	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
8560835	cis-1,2-Dichloroethylene	2023/03/20	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
8560835	cis-1,3-Dichloropropene	2023/03/20	89	60 - 140	81	60 - 130	<0.030	ug/g	NC	50

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8560835	Dibromochloromethane	2023/03/20	93	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
8560835	Dichlorodifluoromethane (FREON 12)	2023/03/20	110	60 - 140	115	60 - 140	<0.040	ug/g	NC	50
8560835	Ethylbenzene	2023/03/20	85	60 - 140	90	60 - 130	<0.010	ug/g	NC	50
8560835	Ethylene Dibromide	2023/03/20	91	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
8560835	F1 (C6-C10) - BTEX	2023/03/20					<10	ug/g	NC	30
8560835	F1 (C6-C10)	2023/03/20	91	60 - 140	99	80 - 120	<10	ug/g	NC	30
8560835	Hexane	2023/03/20	96	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
8560835	Methyl Ethyl Ketone (2-Butanone)	2023/03/20	95	60 - 140	83	60 - 140	<0.40	ug/g	NC	50
8560835	Methyl Isobutyl Ketone	2023/03/20	95	60 - 140	84	60 - 130	<0.40	ug/g	NC	50
8560835	Methyl t-butyl ether (MTBE)	2023/03/20	92	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
8560835	Methylene Chloride(Dichloromethane)	2023/03/20	98	60 - 140	94	60 - 130	<0.049	ug/g	NC	50
8560835	o-Xylene	2023/03/20	87	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
8560835	p+m-Xylene	2023/03/20	87	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
8560835	Styrene	2023/03/20	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8560835	Tetrachloroethylene	2023/03/20	90	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
8560835	Toluene	2023/03/20	89	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
8560835	Total Xylenes	2023/03/20					<0.020	ug/g	NC	50
8560835	trans-1,2-Dichloroethylene	2023/03/20	98	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
8560835	trans-1,3-Dichloropropene	2023/03/20	95	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
8560835	Trichloroethylene	2023/03/20	101	60 - 140	104	60 - 130	<0.010	ug/g	NC	50
8560835	Trichlorofluoromethane (FREON 11)	2023/03/20	102	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
8560835	Vinyl Chloride	2023/03/20	90	60 - 140	92	60 - 130	<0.019	ug/g	NC	50
8561086	F2 (C10-C16 Hydrocarbons)	2023/03/20	84	60 - 130	84	80 - 120	<10	ug/g	NC	30
8561086	F3 (C16-C34 Hydrocarbons)	2023/03/20	84	60 - 130	84	80 - 120	<50	ug/g	NC	30
8561086	F4 (C34-C50 Hydrocarbons)	2023/03/20	84	60 - 130	83	80 - 120	<50	ug/g	NC	30
8561090	1-Methylnaphthalene	2023/03/21	104	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40
8561090	2-Methylnaphthalene	2023/03/21	91	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8561090	Acenaphthene	2023/03/21	94	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8561090	Acenaphthylene	2023/03/21	108	50 - 130	112	50 - 130	<0.0050	ug/g	NC	40
8561090	Anthracene	2023/03/21	102	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8561090	Benzo(a)anthracene	2023/03/21	103	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8561090	Benzo(a)pyrene	2023/03/21	91	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8561090	Benzo(b/j)fluoranthene	2023/03/21	89	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8561090	Benzo(g,h,i)perylene	2023/03/21	85	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8561090	Benzo(k)fluoranthene	2023/03/21	94	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8561090	Chrysene	2023/03/21	100	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
8561090	Dibenzo(a,h)anthracene	2023/03/21	88	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
8561090	Fluoranthene	2023/03/21	103	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
8561090	Fluorene	2023/03/21	103	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
8561090	Indeno(1,2,3-cd)pyrene	2023/03/21	92	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8561090	Naphthalene	2023/03/21	89	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
8561090	Phenanthrene	2023/03/21	97	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
8561090	Pyrene	2023/03/21	107	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
8561696	WAD Cyanide (Free)	2023/03/20	100	75 - 125	104	80 - 120	<0.01	ug/g	NC	35
8562122	Chromium (VI)	2023/03/21	88	70 - 130	96	80 - 120	<0.18	ug/g	NC	35
8562577	WAD Cyanide (Free)	2023/03/21	100	75 - 125	100	80 - 120	<0.01	ug/g	NC	35
8563702	Available (CaCl2) pH	2023/03/21			100	97 - 103			0.23	N/A
8563767	Hot Water Ext. Boron (B)	2023/03/21	104	75 - 125	96	75 - 125	<0.050	ug/g	1.2	40
8564058	Conductivity	2023/03/21			107	90 - 110	<0.002	mS/cm	0.43	10
8564473	Acid Extractable Antimony (Sb)	2023/03/21	104	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
8564473	Acid Extractable Arsenic (As)	2023/03/21	105	75 - 125	100	80 - 120	<1.0	ug/g	11	30
8564473	Acid Extractable Barium (Ba)	2023/03/21	NC	75 - 125	96	80 - 120	<0.50	ug/g	1.1	30
8564473	Acid Extractable Beryllium (Be)	2023/03/21	99	75 - 125	93	80 - 120	<0.20	ug/g	3.9	30
8564473	Acid Extractable Boron (B)	2023/03/21	94	75 - 125	94	80 - 120	<5.0	ug/g	NC	30
8564473	Acid Extractable Cadmium (Cd)	2023/03/21	105	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
8564473	Acid Extractable Chromium (Cr)	2023/03/21	101	75 - 125	99	80 - 120	<1.0	ug/g	0.27	30
8564473	Acid Extractable Cobalt (Co)	2023/03/21	99	75 - 125	97	80 - 120	<0.10	ug/g	3.3	30
8564473	Acid Extractable Copper (Cu)	2023/03/21	101	75 - 125	100	80 - 120	<0.50	ug/g	3.7	30
8564473	Acid Extractable Lead (Pb)	2023/03/21	103	75 - 125	101	80 - 120	<1.0	ug/g	2.3	30
8564473	Acid Extractable Mercury (Hg)	2023/03/21	109	75 - 125	108	80 - 120	<0.050	ug/g	NC	30
8564473	Acid Extractable Molybdenum (Mo)	2023/03/21	106	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
8564473	Acid Extractable Nickel (Ni)	2023/03/21	100	75 - 125	99	80 - 120	<0.50	ug/g	1.4	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8564473	Acid Extractable Selenium (Se)	2023/03/21	107	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
8564473	Acid Extractable Silver (Ag)	2023/03/21	106	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
8564473	Acid Extractable Thallium (Tl)	2023/03/21	104	75 - 125	102	80 - 120	<0.050	ug/g	3.9	30
8564473	Acid Extractable Uranium (U)	2023/03/21	104	75 - 125	98	80 - 120	<0.050	ug/g	2.6	30
8564473	Acid Extractable Vanadium (V)	2023/03/21	99	75 - 125	97	80 - 120	<5.0	ug/g	0.0033	30
8564473	Acid Extractable Zinc (Zn)	2023/03/21	NC	75 - 125	98	80 - 120	<5.0	ug/g	8.4	30
8564544	Acid Extractable Antimony (Sb)	2023/03/21	98	75 - 125	99	80 - 120	<0.20	ug/g	6.0	30
8564544	Acid Extractable Arsenic (As)	2023/03/21	97	75 - 125	94	80 - 120	<1.0	ug/g	3.8	30
8564544	Acid Extractable Barium (Ba)	2023/03/21	NC	75 - 125	98	80 - 120	<0.50	ug/g	2.7	30
8564544	Acid Extractable Beryllium (Be)	2023/03/21	100	75 - 125	100	80 - 120	<0.20	ug/g	6.7	30
8564544	Acid Extractable Boron (B)	2023/03/21	97	75 - 125	103	80 - 120	<5.0	ug/g	NC	30
8564544	Acid Extractable Cadmium (Cd)	2023/03/21	98	75 - 125	95	80 - 120	<0.10	ug/g	3.2	30
8564544	Acid Extractable Chromium (Cr)	2023/03/21	100	75 - 125	98	80 - 120	<1.0	ug/g	2.5	30
8564544	Acid Extractable Cobalt (Co)	2023/03/21	95	75 - 125	97	80 - 120	<0.10	ug/g	2.0	30
8564544	Acid Extractable Copper (Cu)	2023/03/21	100	75 - 125	99	80 - 120	<0.50	ug/g	2.4	30
8564544	Acid Extractable Lead (Pb)	2023/03/21	NC	75 - 125	97	80 - 120	<1.0	ug/g	1.6	30
8564544	Acid Extractable Mercury (Hg)	2023/03/21	104	75 - 125	104	80 - 120	<0.050	ug/g	7.6	30
8564544	Acid Extractable Molybdenum (Mo)	2023/03/21	99	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
8564544	Acid Extractable Nickel (Ni)	2023/03/21	97	75 - 125	97	80 - 120	<0.50	ug/g	0.91	30
8564544	Acid Extractable Selenium (Se)	2023/03/21	102	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
8564544	Acid Extractable Silver (Ag)	2023/03/21	98	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
8564544	Acid Extractable Thallium (Tl)	2023/03/21	97	75 - 125	97	80 - 120	<0.050	ug/g	20	30
8564544	Acid Extractable Uranium (U)	2023/03/21	104	75 - 125	103	80 - 120	<0.050	ug/g	5.2	30
8564544	Acid Extractable Vanadium (V)	2023/03/21	99	75 - 125	97	80 - 120	<5.0	ug/g	2.1	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8564544	Acid Extractable Zinc (Zn)	2023/03/21	NC	75 - 125	98	80 - 120	<5.0	ug/g	1.8	30

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).

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

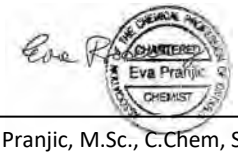
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

VALIDATION SIGNATURE PAGE

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



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:	REPORT TO:	PROJECT INFORMATION:	Laboratory Use Only:
Company Name: #36876 Grounded Engineering Inc.	Company Name:	Quotation #: C20582	Bureau Veritas Job #: / Bottle Order #: 915722
Attention: ~~Sean Morris~~ Lindsy Levesque	Attention: ~~Sean Morris~~ Lindsy Levesque	P.O. #:	
Address: 1 Banigan Drive, Toronto ON M4H 1G3	Address:	Project: ~~22-872~~ 22-282	
Tel: ~~(289) 697-8873~~ (647) 361-5254 Fax:	Tel: ~~(289) 697-8873~~ (647) 361-5254 Fax:	Project Name: 2027 Lakeshore Rd, Burlington	COC #: C#915722-28-01
Email: ~~smorris@groundedeng.ca~~ llevesque@groundedeng.ca	Email: ~~smorris@groundedeng.ca~~ llevesque@groundedeng.ca	Site #:	Project Manager: Marijane Cruz
		Sampled By: CSH	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☒ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☒ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Reg 406 Table ☐ Other

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? Y

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O. Reg 153 MOE	O. REG 153 PAH	O. Reg 153 BTEX/F1-F4	O. Reg 153 VOCs	# of Bottles	Comments
1		BH 103 SS 2	23/03/15	17:15	SOIL		X	X	X	4	
2		BH 103 SS 3A	↓	↓	↓	X				1	
3		BH 103 SS4	↓	↓	↓	X	X	X	X	5	
4											
5											
6											
7											
8											
9											
10											

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ (call lab for #)

17-Mar-23 15:14
Marijane Cruz
C376739
RJM ENV-1378

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23/03/15	20:00	JAGDEEP DHAK	2023/03/17	15:14	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	6 | 9 | 4	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

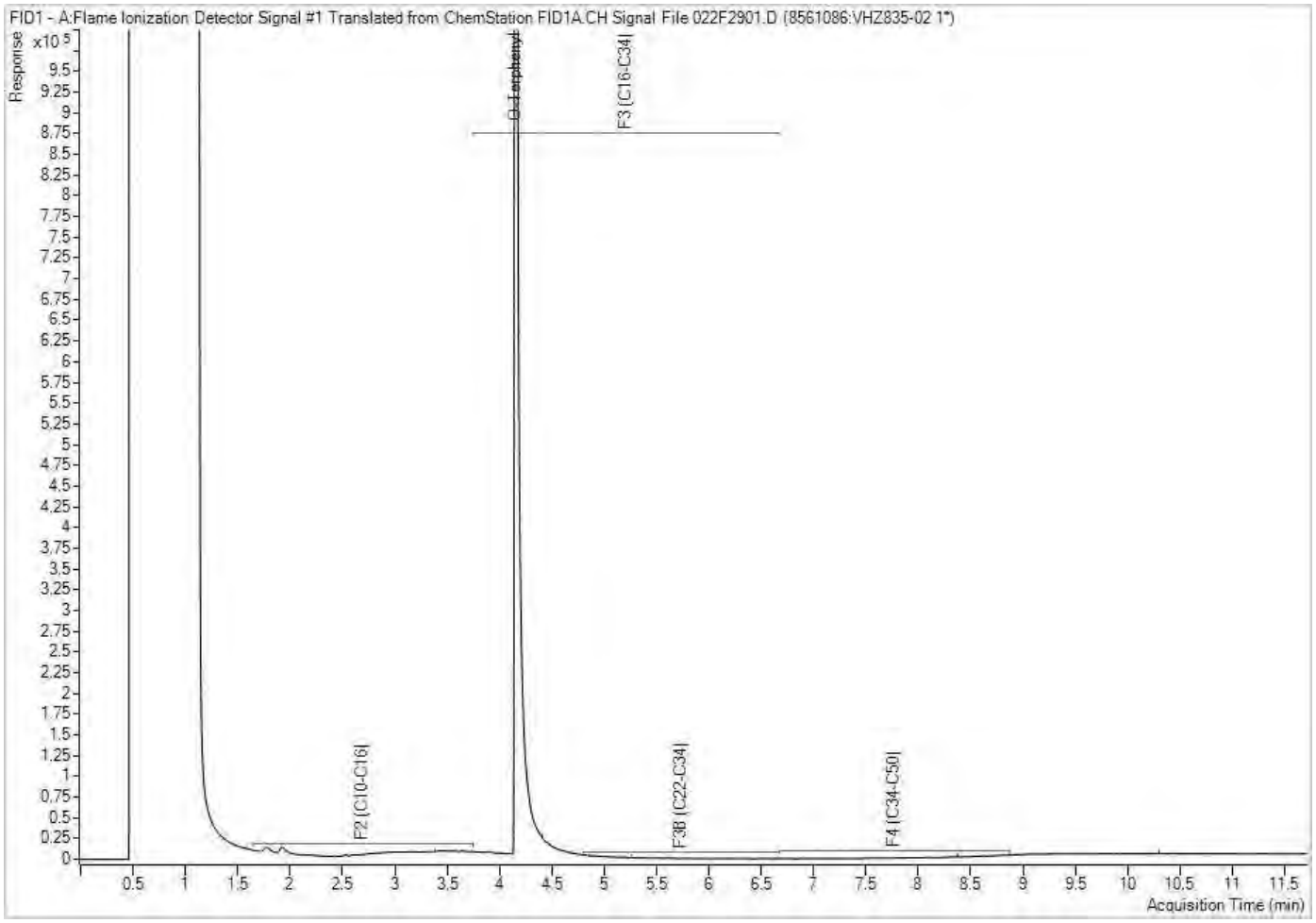
White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22
Bureau Veritas Sample: VHZ835

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2027 LAKESHORE RD, BURLINGTON
Client ID: BH103 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

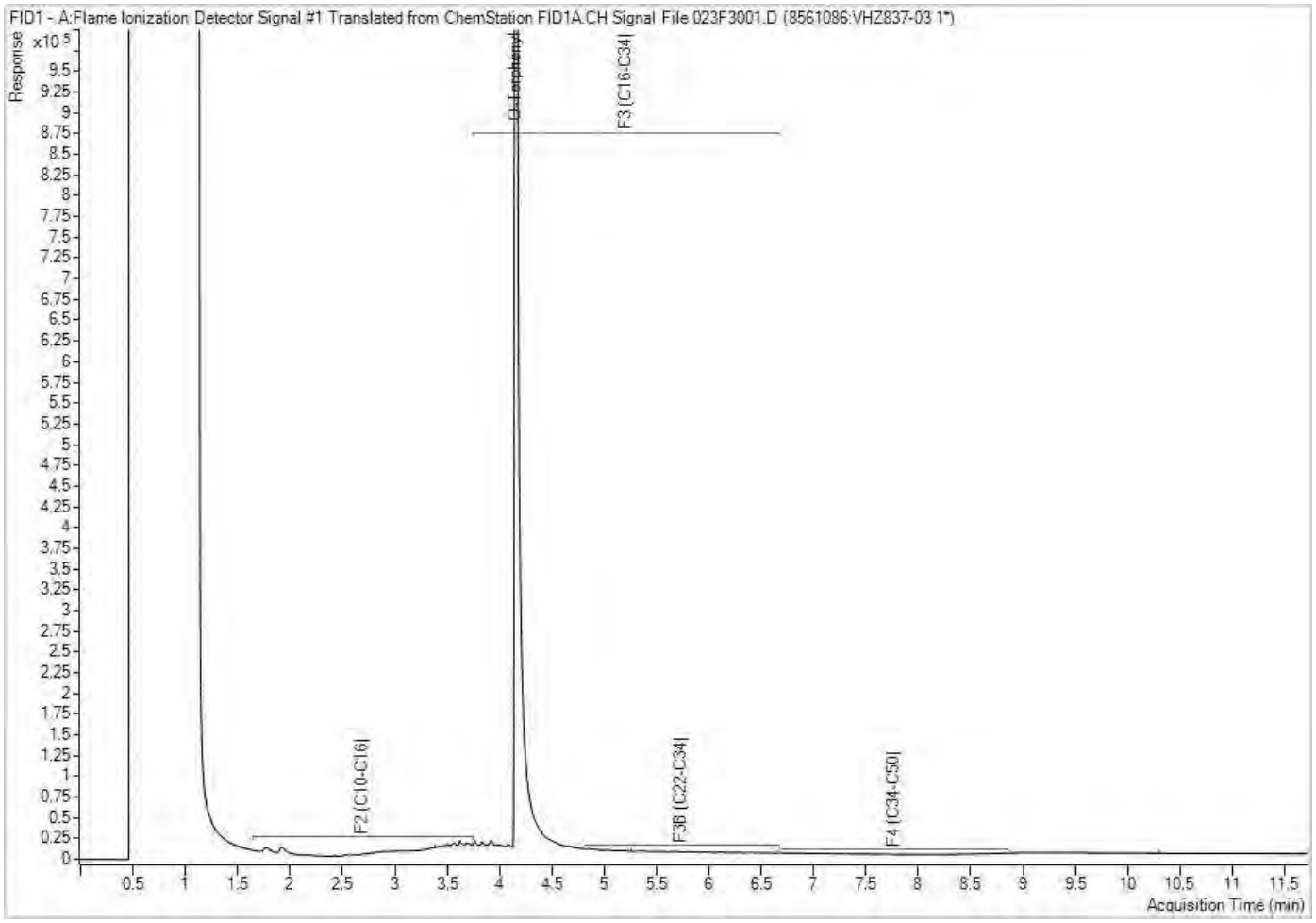


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22
Bureau Veritas Sample: VHZ837

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2027 LAKESHORE RD, BURLINGTON
Client ID: BH103 SS4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C376739
Report Date: 2023/03/22

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2027 LAKESHORE RD, BURLINGTON
Sampler Initials: CSH

Exceedance Summary Table – Reg153/04 T2-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282
Your C.O.C. #: 915722-31-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/24
Report #: R7560164
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C376725
Received: 2023/03/17, 15:14

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Cyanide (WAD) in Leachates	1	N/A	2023/03/24	CAM SOP-00457	OMOE 3015 m
Fluoride by ISE in Leachates	1	2023/03/23	2023/03/23	CAM SOP-00449	SM 23 4500-F- C m
Total Metals in TCLP Leachate by ICPMS	1	2023/03/23	2023/03/23	CAM SOP-00447	EPA 6020B m
Nitrate& Nitrite as Nitrogen in Leachate	1	N/A	2023/03/23	CAM SOP-00440	SM 23 4500-NO3I/NO2B
PAH Compounds in Leachate by GC/MS (SIM)	1	2023/03/23	2023/03/24	CAM SOP-00318	EPA 8270E
Polychlorinated Biphenyl in Leachate	1	2023/03/23	2023/03/24	CAM SOP-00309	EPA 8082A m
TCLP - % Solids	1	2023/03/22	2023/03/23	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	1	N/A	2023/03/23	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	1	N/A	2023/03/23	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction	1	2023/03/22	2023/03/23	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates	1	2023/03/23	2023/03/23	CAM SOP-00228	EPA 8260D

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, MELCC, EPA, APHA.

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.
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.

Your Project #: 22-282
Your C.O.C. #: 915722-31-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/24
Report #: R7560164
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C376725
Received: 2023/03/17, 15:14

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

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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 558 TCLP BENZO(A)PYRENE

Bureau Veritas ID			VHZ764		
Sampling Date			2023/03/15 20:31		
COC Number			915722-31-01		
	UNITS	347	TCLP	RDL	QC Batch
Polyaromatic Hydrocarbons					
Leachable Benzo(a)pyrene	ug/L	1	<0.10	0.10	8570038
Surrogate Recovery (%)					
Leachable D10-Anthracene	%	-	113		8570038
Leachable D14-Terphenyl (FS)	%	-	113		8570038
Leachable D8-Acenaphthylen	%	-	99		8570038

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 558 TCLP INORGANICS PACKAGE (SOIL)

Bureau Veritas ID			VHZ764		
Sampling Date			2023/03/15 20:31		
COC Number			915722-31-01		
	UNITS	347	TCLP	RDL	QC Batch
Inorganics					
Leachable Fluoride (F-)	mg/L	150	0.37	0.10	8569274
Leachable WAD Cyanide (Free	mg/L	20	<0.010	0.010	8569276
Leachable Nitrite (N)	mg/L	-	<0.10	0.10	8569275
Leachable Nitrate (N)	mg/L	-	<1.0	1.0	8569275
Leachable Nitrate + Nitrite (N)	mg/L	1000	<1.0	1.0	8569275
Metals					
Leachable Arsenic (As)	mg/L	2.5	<0.2	0.2	8569285
Leachable Barium (Ba)	mg/L	100	1.0	0.2	8569285
Leachable Boron (B)	mg/L	500	0.2	0.1	8569285
Leachable Cadmium (Cd)	mg/L	0.5	<0.05	0.05	8569285
Leachable Chromium (Cr)	mg/L	5	<0.1	0.1	8569285
Leachable Lead (Pb)	mg/L	5	<0.1	0.1	8569285
Leachable Mercury (Hg)	mg/L	0.1	<0.001	0.001	8569285
Leachable Selenium (Se)	mg/L	1	<0.1	0.1	8569285
Leachable Silver (Ag)	mg/L	5	<0.01	0.01	8569285
Leachable Uranium (U)	mg/L	10	<0.01	0.01	8569285

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TCLP LEACHATE PREPARATION (SOIL)

Bureau Veritas ID		VHZ764		
Sampling Date		2023/03/15 20:31		
COC Number		915722-31-01		
	UNITS	TCLP	RDL	QC Batch
Inorganics				
Final pH	pH	5.79		8567582
Initial pH	pH	9.66		8567582
TCLP - % Solids	%	100	0.2	8566604
TCLP Extraction Fluid	N/A	FLUID 2		8567538

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376725
Report Date: 2023/03/24

Grounded Engineering Inc.
Client Project #: 22-282
Sampler Initials: CH

O.REG 558 TCLP PCBS (SOIL)

Bureau Veritas ID			VHZ764		
Sampling Date			2023/03/15 20:31		
COC Number			915722-31-01		
	UNITS	347	TCLP	RDL	QC Batch
PCBs					
Leachable Total PCB	ug/L	300	<3.0	3.0	8569472
Surrogate Recovery (%)					
Leachable Decachlorobipheny	%	-	113		8569472

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 558 TCLP VOCS BY HS (SOIL)

Bureau Veritas ID			VHZ764		
Sampling Date			2023/03/15 20:31		
COC Number			915722-31-01		
	UNITS	347	TCLP	RDL	QC Batch
Charge/Prep Analysis					
Amount Extracted (Wet Weight) (g)	N/A	-	25	N/A	8566953
Volatile Organics					
Leachable Benzene	mg/L	0.5	<0.020	0.020	8569066
Leachable Carbon Tetrachloride	mg/L	0.5	<0.020	0.020	8569066
Leachable Chlorobenzene	mg/L	8	<0.020	0.020	8569066
Leachable Chloroform	mg/L	10	<0.020	0.020	8569066
Leachable 1,2-Dichlorobenzene	mg/L	20	<0.050	0.050	8569066
Leachable 1,4-Dichlorobenzene	mg/L	0.5	<0.050	0.050	8569066
Leachable 1,2-Dichloroethane	mg/L	0.5	<0.050	0.050	8569066
Leachable 1,1-Dichloroethylene	mg/L	1.4	<0.020	0.020	8569066
Leachable Methylene Chloride(Dichloromethane	mg/L	5	<0.20	0.20	8569066
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	200	<1.0	1.0	8569066
Leachable Tetrachloroethylene	mg/L	3	<0.020	0.020	8569066
Leachable Trichloroethylene	mg/L	5	<0.020	0.020	8569066
Leachable Vinyl Chloride	mg/L	0.2	<0.020	0.020	8569066
Surrogate Recovery (%)					
Leachable 4-Bromofluorobenzene	%	-	103		8569066
Leachable D4-1,2-Dichloroethane	%	-	102		8569066
Leachable D8-Toluene	%	-	91		8569066

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C376725
Report Date: 2023/03/24

Grounded Engineering Inc.
Client Project #: 22-282
Sampler Initials: CH

TEST SUMMARY

Bureau Veritas ID: VHZ764
Sample ID: TCLP
Matrix: Soil

Collected: 2023/03/15
Shipped:
Received: 2023/03/17

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide (WAD) in Leachates	SKAL/CN	8569276	N/A	2023/03/24	Chloe Pollock
Fluoride by ISE in Leachates	ISE	8569274	2023/03/23	2023/03/23	Kien Tran
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	8569285	2023/03/23	2023/03/23	Azita Fazaeli
Nitrate& Nitrite as Nitrogen in Leachate	LACH	8569275	N/A	2023/03/23	Chandra Nandlal
PAH Compounds in Leachate by GC/MS (SIM)	GC/MS	8570038	2023/03/23	2023/03/24	Jonghan Yoon
Polychlorinated Biphenyl in Leachate	GC/ECD	8569472	2023/03/23	2023/03/24	Svitlana Shaula
TCLP - % Solids	BAL	8566604	2023/03/22	2023/03/23	Omer Imtiaz Uddin
TCLP - Extraction Fluid		8567538	N/A	2023/03/23	Omer Imtiaz Uddin
TCLP - Initial and final pH	PH	8567582	N/A	2023/03/23	Omer Imtiaz Uddin
TCLP Zero Headspace Extraction		8566953	2023/03/22	2023/03/23	Mohammed Abdul Nafay Shoeb
VOCs in ZHE Leachates	GC/MS	8569066	2023/03/23	2023/03/23	Skylar Canning

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Cooler custody seal present and intact.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
8569066	Leachable 4-Bromofluorobenzene	2023/03/23	103	70 - 130	102	70 - 130	102	%				
8569066	Leachable D4-1,2-Dichloroethane	2023/03/23	96	70 - 130	101	70 - 130	102	%				
8569066	Leachable D8-Toluene	2023/03/23	105	70 - 130	104	70 - 130	90	%				
8569472	Leachable Decachlorobiphenyl	2023/03/24	114	30 - 130	107	30 - 130	108	%				
8570038	Leachable D10-Anthracene	2023/03/24	111	50 - 130	114	50 - 130	109	%				
8570038	Leachable D14-Terphenyl (FS)	2023/03/24	110	50 - 130	105	50 - 130	110	%				
8570038	Leachable D8-Acenaphthylene	2023/03/24	104	50 - 130	99	50 - 130	99	%				
8569066	Leachable 1,1-Dichloroethylene	2023/03/23	95	70 - 130	86	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable 1,2-Dichlorobenzene	2023/03/23	96	70 - 130	91	70 - 130	<0.050	mg/L	NC	30		
8569066	Leachable 1,2-Dichloroethane	2023/03/23	92	70 - 130	93	70 - 130	<0.050	mg/L	NC	30		
8569066	Leachable 1,4-Dichlorobenzene	2023/03/23	113	70 - 130	105	70 - 130	<0.050	mg/L	NC	30		
8569066	Leachable Benzene	2023/03/23	90	70 - 130	85	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Carbon Tetrachloride	2023/03/23	97	70 - 130	88	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Chlorobenzene	2023/03/23	98	70 - 130	92	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Chloroform	2023/03/23	94	70 - 130	89	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Methyl Ethyl Ketone (2-Butanone)	2023/03/23	102	60 - 140	112	60 - 140	<1.0	mg/L	NC	30		
8569066	Leachable Methylene Chloride (Dichloromethane)	2023/03/23	99	70 - 130	95	70 - 130	<0.20	mg/L	NC	30		
8569066	Leachable Tetrachloroethylene	2023/03/23	94	70 - 130	84	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Trichloroethylene	2023/03/23	102	70 - 130	94	70 - 130	<0.020	mg/L	NC	30		
8569066	Leachable Vinyl Chloride	2023/03/23	86	70 - 130	78	70 - 130	<0.020	mg/L	NC	30		
8569274	Leachable Fluoride (F-)	2023/03/23	77 (1)	80 - 120	99	80 - 120	<0.10	mg/L	0.46	25	<0.10	mg/L
8569275	Leachable Nitrate (N)	2023/03/23	93	80 - 120	95	80 - 120	<1.0	mg/L	NC	20	<1.0	mg/L
8569275	Leachable Nitrate + Nitrite (N)	2023/03/23	97	80 - 120	96	80 - 120	<1.0	mg/L	NC	20	<1.0	mg/L
8569275	Leachable Nitrite (N)	2023/03/23	110	80 - 120	104	80 - 120	<0.10	mg/L	NC	20	<0.10	mg/L
8569276	Leachable WAD Cyanide (Free)	2023/03/24	91	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20	<0.010	mg/L
8569285	Leachable Arsenic (As)	2023/03/23	99	80 - 120	104	80 - 120	<0.2	mg/L	NC	35	<0.2	mg/L
8569285	Leachable Barium (Ba)	2023/03/23	98	80 - 120	102	80 - 120	<0.2	mg/L	7.2	35	<0.2	mg/L
8569285	Leachable Boron (B)	2023/03/23	106	80 - 120	108	80 - 120	<0.1	mg/L	3.8	35	<0.1	mg/L
8569285	Leachable Cadmium (Cd)	2023/03/23	96	80 - 120	95	80 - 120	<0.05	mg/L	NC	35	<0.05	mg/L
8569285	Leachable Chromium (Cr)	2023/03/23	97	80 - 120	99	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
8569285	Leachable Lead (Pb)	2023/03/23	93	80 - 120	97	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
8569285	Leachable Mercury (Hg)	2023/03/23	96	80 - 120	103	80 - 120	<0.001	mg/L	NC	35	<0.001	mg/L
8569285	Leachable Selenium (Se)	2023/03/23	97	80 - 120	96	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
8569285	Leachable Silver (Ag)	2023/03/23	101	80 - 120	100	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
8569285	Leachable Uranium (U)	2023/03/23	98	80 - 120	101	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
8569472	Leachable Total PCB	2023/03/24	112	30 - 130	105	30 - 130	<3.0	ug/L	NC	40		
8570038	Leachable Benzo(a)pyrene	2023/03/24	104	50 - 130	107	50 - 130	<0.10	ug/L	NC	40		

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.

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

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).

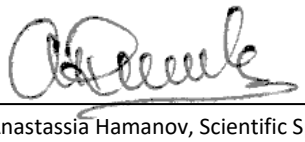
(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

Page 1 of 1

CHAIN OF CUSTODY RECORD

INVOICE TO:	REPORT TO:	PROJECT INFORMATION:	Laboratory Use Only:
Company Name: #36876 Grounded Engineering Inc.	Company Name:	Quotation #: C20582	Bureau Veritas Job #: / Bottle Order #: 916722
Attention: ~~Sean Morris~~ Lindsy Levesque	Attention: ~~Sean Morris~~ Lindsy Levesque	P.O. #:	
Address: 1 Banigan Drive, Toronto ON M4H 1G3	Address:	Project: ~~22-812~~ 22-282	COC #: C#915722-31-01 / Project Manager: Marjane Cruz
Tel: ~~(289) 687-8873~~ 647 361 5254 Fax:	Tel: ~~(289) 687-8873~~ 647 361 5254	Project Name:	
Email: llevesque ~~smorris~~@groundedeng.ca	Email: llevesque ~~smorris~~@groundedeng.ca	Site #:	
		Sampled By:	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Reg 406 Table ☒ Other Reg. 347 Schedule 4

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153/04 (2011) PHCs F1-F4	O.Reg 406 Explosives and Explosives Residues	O.Reg 406 Explosives and Explosives Residues	O.Reg 153/04 (2011) Petroleum Hydrocarbons	SP Paints	TCLP (MS), VOC, PCB, Benzo-a-Pyrene				# of Bottles	Comments
1		TCLP	23/03/15	20:30	SOIL							X					
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

17-Mar-23 15:14
Marjane Cruz
C376725
RJM ENV-1378

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23/03/15	20:30	[illegible]	2023/03/17	15:14	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal Present	Yes	No
	6 | 9 | 9	Intact		

1 Ice

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc. 664772

Exceedance Summary Table – Regulation 558/00

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Your C.O.C. #: 925895-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/27
Report #: R7563443
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C379625
Received: 2023/03/21, 15:47

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2023/03/27	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	4	N/A	2023/03/27		EPA 8260C m
Chloride by Automated Colourimetry	4	N/A	2023/03/23	CAM SOP-00463	SM 23 4500-Cl E m
Chromium (VI) in Water	4	N/A	2023/03/23	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	4	N/A	2023/03/24	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1)	4	2023/03/22	2023/03/23	CAM SOP-00316	CCME PHC-CWS m
Mercury	4	2023/03/23	2023/03/23	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	3	N/A	2023/03/23	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	1	N/A	2023/03/24	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	4	2023/03/22	2023/03/23	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs	4	N/A	2023/03/24	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, MELCC, EPA, APHA.

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.
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.

Your Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Your C.O.C. #: 925895-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2023/03/27
Report #: R7563443
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C379625
Received: 2023/03/21, 15:47

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

(1) 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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

O.REG 153 METALS & INORGANICS PKG (WTR)

Bureau Veritas ID			VIQ003	VIQ004		VIQ005		VIQ006		
Sampling Date			2023/03/20 13:00	2023/03/20 13:00		2023/03/20 15:00		2023/03/21 10:30		
COC Number			925895-01-01	925895-01-01		925895-01-01		925895-01-01		
	UNITS	Criteria	BH104	DUP	RDL	BH107	RDL	BH106	RDL	QC Batch
Inorganics										
WAD Cyanide (Free)	ug/L	66	<1	<1	1	1	1	<1	1	8568519
Dissolved Chloride (Cl-)	mg/L	2300	1700	1800	20	590	10	**3200**	20	8566928
Metals										
Chromium (VI)	ug/L	140	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	8568596
Mercury (Hg)	ug/L	0.29	<0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	8568513
Dissolved Antimony (Sb)	ug/L	20000	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	8566720
Dissolved Arsenic (As)	ug/L	1900	1.3	1.3	1.0	1.3	1.0	1.5	1.0	8566720
Dissolved Barium (Ba)	ug/L	29000	150	150	2.0	92	2.0	140	2.0	8566720
Dissolved Beryllium (Be)	ug/L	67	<0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	8566720
Dissolved Boron (B)	ug/L	45000	340	330	10	1700	10	1100	10	8566720
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	8566720
Dissolved Chromium (Cr)	ug/L	810	<5.0	<5.0	5.0	<5.0	5.0	<5.0	5.0	8566720
Dissolved Cobalt (Co)	ug/L	66	<0.50	<0.50	0.50	0.52	0.50	<0.50	0.50	8566720
Dissolved Copper (Cu)	ug/L	87	2.8	2.0	0.90	1.2	0.90	1.8	0.90	8566720
Dissolved Lead (Pb)	ug/L	25	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	8566720
Dissolved Molybdenum (Mo	ug/L	9200	5.7	5.9	0.50	5.9	0.50	4.1	0.50	8566720
Dissolved Nickel (Ni)	ug/L	490	2.2	2.1	1.0	1.5	1.0	1.7	1.0	8566720
Dissolved Selenium (Se)	ug/L	63	<2.0	<2.0	2.0	<2.0	2.0	<2.0	2.0	8566720
Dissolved Silver (Ag)	ug/L	1.5	<0.090	<0.090	0.090	<0.090	0.090	<0.090	0.090	8566720
Dissolved Sodium (Na)	ug/L	2300000	570000	580000	100	230000	100	1500000	500	8566720
Dissolved Thallium (Tl)	ug/L	510	<0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	8566720
Dissolved Uranium (U)	ug/L	420	20	20	0.10	2.5	0.10	1.2	0.10	8566720
Dissolved Vanadium (V)	ug/L	250	<0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	8566720
Dissolved Zinc (Zn)	ug/L	1100	8.9	8.3	5.0	6.6	5.0	6.5	5.0	8566720

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

O.REG 153 PAHS (WATER)

Bureau Veritas ID			VIQ003	VIQ004	VIQ005	VIQ006		
Sampling Date			2023/03/20 13:00	2023/03/20 13:00	2023/03/20 15:00	2023/03/21 10:30		
COC Number			925895-01-01	925895-01-01	925895-01-01	925895-01-01		
	UNITS	Criteria	BH104	DUP	BH107	BH106	RDL	QC Batch
Calculated Parameters								
Methylnaphthalene, 2-(1-)	ug/L	1800	<0.071	<0.071	<0.071	<0.071	0.071	8563791
Polyaromatic Hydrocarbons								
Acenaphthene	ug/L	600	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Acenaphthylene	ug/L	1.8	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Anthracene	ug/L	2.4	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Benzo(a)anthracene	ug/L	4.7	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Benzo(a)pyrene	ug/L	0.81	<0.0090	<0.0090	0.047	<0.0090	0.0090	8566859
Benzo(b/j)fluoranthene	ug/L	0.75	<0.050	<0.050	0.096	<0.050	0.050	8566859
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Benzo(k)fluoranthene	ug/L	0.4	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Chrysene	ug/L	1	<0.050	<0.050	0.064	<0.050	0.050	8566859
Dibenzo(a,h)anthracene	ug/L	0.52	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Fluoranthene	ug/L	130	<0.050	<0.050	0.19	<0.050	0.050	8566859
Fluorene	ug/L	400	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	0.050	8566859
1-Methylnaphthalene	ug/L	1800	<0.050	<0.050	<0.050	0.055	0.050	8566859
2-Methylnaphthalene	ug/L	1800	<0.050	<0.050	<0.050	<0.050	0.050	8566859
Naphthalene	ug/L	1400	0.050	0.050	<0.050	0.16	0.050	8566859
Phenanthrene	ug/L	580	<0.030	0.032	0.097	0.070	0.030	8566859
Pyrene	ug/L	68	<0.050	<0.050	0.13	<0.050	0.050	8566859
Surrogate Recovery (%)								
D10-Anthracene	%	-	103	101	102	107		8566859
D14-Terphenyl (FS)	%	-	74	70	100	92		8566859
D8-Acenaphthylene	%	-	104	101	101	106		8566859

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

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

Bureau Veritas ID			VIQ003			VIQ003			VIQ004		
Sampling Date			2023/03/20 13:00			2023/03/20 13:00			2023/03/20 13:00		
COC Number			925895-01-01			925895-01-01			925895-01-01		
	UNITS	Criteria	BH104	RDL	QC Batch	BH104 Lab-Dup	RDL	QC Batch	DUP	RDL	QC Batch
Calculated Parameters											
1,3-Dichloropropene (cis+trans)	ug/L	5.2	<0.50	0.50	8563929				<0.50	0.50	8563929
Volatile Organics											
Acetone (2-Propanone)	ug/L	130000	<10	10	8570013	<10	10	8570013	<10	10	8570013
Benzene	ug/L	44	<0.17	0.17	8570013	<0.17	0.17	8570013	<0.17	0.17	8570013
Bromodichloromethane	ug/L	85000	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Bromoform	ug/L	380	<1.0	1.0	8570013	<1.0	1.0	8570013	<1.0	1.0	8570013
Bromomethane	ug/L	5.6	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Carbon Tetrachloride	ug/L	0.79	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Chlorobenzene	ug/L	630	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Chloroform	ug/L	2.4	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Dibromochloromethane	ug/L	82000	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,2-Dichlorobenzene	ug/L	4600	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,3-Dichlorobenzene	ug/L	9600	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,4-Dichlorobenzene	ug/L	8	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Dichlorodifluoromethane (FREON 12)	ug/L	4400	<1.0	1.0	8570013	<1.0	1.0	8570013	<1.0	1.0	8570013
1,1-Dichloroethane	ug/L	320	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
1,2-Dichloroethane	ug/L	1.6	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,1-Dichloroethylene	ug/L	1.6	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,2-Dichloropropane	ug/L	16	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
cis-1,3-Dichloropropene	ug/L	5.2	<0.30	0.30	8570013	<0.30	0.30	8570013	<0.30	0.30	8570013
trans-1,3-Dichloropropene	ug/L	5.2	<0.40	0.40	8570013	<0.40	0.40	8570013	<0.40	0.40	8570013
Ethylbenzene	ug/L	2300	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Ethylene Dibromide	ug/L	0.25	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Hexane	ug/L	51	<1.0	1.0	8570013	<1.0	1.0	8570013	<1.0	1.0	8570013
Methylene Chloride(Dichloromethane	ug/L	610	<2.0	2.0	8570013	<2.0	2.0	8570013	<2.0	2.0	8570013

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

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

Bureau Veritas ID			VIQ003			VIQ003			VIQ004		
Sampling Date			2023/03/20 13:00			2023/03/20 13:00			2023/03/20 13:00		
COC Number			925895-01-01			925895-01-01			925895-01-01		
	UNITS	Criteria	BH104	RDL	QC Batch	BH104 Lab-Dup	RDL	QC Batch	DUP	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	10	8570013	<10	10	8570013	<10	10	8570013
Methyl Isobutyl Ketone	ug/L	140000	<5.0	5.0	8570013	<5.0	5.0	8570013	<5.0	5.0	8570013
Methyl t-butyl ether (MTBE)	ug/L	190	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Styrene	ug/L	1300	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Tetrachloroethylene	ug/L	1.6	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Toluene	ug/L	18000	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
1,1,1-Trichloroethane	ug/L	640	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
1,1,2-Trichloroethane	ug/L	4.7	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Trichloroethylene	ug/L	1.6	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Trichlorofluoromethane (FREON 11)	ug/L	2500	<0.50	0.50	8570013	<0.50	0.50	8570013	<0.50	0.50	8570013
Vinyl Chloride	ug/L	0.5	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
p+m-Xylene	ug/L	-	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
o-Xylene	ug/L	-	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
Total Xylenes	ug/L	4200	<0.20	0.20	8570013	<0.20	0.20	8570013	<0.20	0.20	8570013
F1 (C6-C10)	ug/L	750	<25	25	8570013	<25	25	8570013	<25	25	8570013
F1 (C6-C10) - BTEX	ug/L	750	<25	25	8570013	<25	25	8570013	<25	25	8570013
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	100	8566864				<100	100	8566864
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	200	8566864				<200	200	8566864
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	200	8566864				<200	200	8566864
Reached Baseline at C50	ug/L	-	Yes		8566864				Yes		8566864
Surrogate Recovery (%)											
o-Terphenyl	%	-	92		8566864				88		8566864
4-Bromofluorobenzene	%	-	86		8570013	85		8570013	85		8570013
D4-1,2-Dichloroethane	%	-	98		8570013	98		8570013	98		8570013
D8-Toluene	%	-	95		8570013	94		8570013	95		8570013

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VIQ005	VIQ006		
Sampling Date			2023/03/20 15:00	2023/03/21 10:30		
COC Number			925895-01-01	925895-01-01		
	UNITS	Criteria	BH107	BH106	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	5.2	<0.50	<0.50	0.50	8563929
Volatile Organics						
Acetone (2-Propanone)	ug/L	130000	<10	<10	10	8570013
Benzene	ug/L	44	0.17	<0.17	0.17	8570013
Bromodichloromethane	ug/L	85000	<0.50	<0.50	0.50	8570013
Bromoform	ug/L	380	<1.0	<1.0	1.0	8570013
Bromomethane	ug/L	5.6	<0.50	<0.50	0.50	8570013
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	0.20	8570013
Chlorobenzene	ug/L	630	<0.20	<0.20	0.20	8570013
Chloroform	ug/L	2.4	<0.20	<0.20	0.20	8570013
Dibromochloromethane	ug/L	82000	<0.50	<0.50	0.50	8570013
1,2-Dichlorobenzene	ug/L	4600	<0.50	<0.50	0.50	8570013
1,3-Dichlorobenzene	ug/L	9600	<0.50	<0.50	0.50	8570013
1,4-Dichlorobenzene	ug/L	8	<0.50	<0.50	0.50	8570013
Dichlorodifluoromethane (FREON 12)	ug/L	4400	<1.0	<1.0	1.0	8570013
1,1-Dichloroethane	ug/L	320	<0.20	<0.20	0.20	8570013
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	0.50	8570013
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	0.20	8570013
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	0.50	8570013
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	0.50	8570013
1,2-Dichloropropane	ug/L	16	<0.20	<0.20	0.20	8570013
cis-1,3-Dichloropropene	ug/L	5.2	<0.30	<0.30	0.30	8570013
trans-1,3-Dichloropropene	ug/L	5.2	<0.40	<0.40	0.40	8570013
Ethylbenzene	ug/L	2300	<0.20	0.24	0.20	8570013
Ethylene Dibromide	ug/L	0.25	<0.20	<0.20	0.20	8570013
Hexane	ug/L	51	<1.0	<1.0	1.0	8570013
Methylene Chloride(Dichloromethane	ug/L	610	<2.0	<2.0	2.0	8570013

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			VIQ005	VIQ006		
Sampling Date			2023/03/20 15:00	2023/03/21 10:30		
COC Number			925895-01-01	925895-01-01		
	UNITS	Criteria	BH107	BH106	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	<10	10	8570013
Methyl Isobutyl Ketone	ug/L	140000	<5.0	<5.0	5.0	8570013
Methyl t-butyl ether (MTBE)	ug/L	190	<0.50	<0.50	0.50	8570013
Styrene	ug/L	1300	<0.50	<0.50	0.50	8570013
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	<0.50	0.50	8570013
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	<0.50	0.50	8570013
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	0.20	8570013
Toluene	ug/L	18000	<0.20	<0.20	0.20	8570013
1,1,1-Trichloroethane	ug/L	640	<0.20	<0.20	0.20	8570013
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	0.50	8570013
Trichloroethylene	ug/L	1.6	<0.20	<0.20	0.20	8570013
Trichlorofluoromethane (FREON 11)	ug/L	2500	<0.50	<0.50	0.50	8570013
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	0.20	8570013
p+m-Xylene	ug/L	-	<0.20	0.29	0.20	8570013
o-Xylene	ug/L	-	<0.20	<0.20	0.20	8570013
Total Xylenes	ug/L	4200	<0.20	0.29	0.20	8570013
F1 (C6-C10)	ug/L	750	<25	<25	25	8570013
F1 (C6-C10) - BTEX	ug/L	750	<25	<25	25	8570013
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	100	8566864
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	200	8566864
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	200	8566864
Reached Baseline at C50	ug/L	-	Yes	Yes		8566864
Surrogate Recovery (%)						
o-Terphenyl	%	-	91	95		8566864
4-Bromofluorobenzene	%	-	86	87		8570013
D4-1,2-Dichloroethane	%	-	96	96		8570013
D8-Toluene	%	-	95	95		8570013

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VIQ003
Sample ID: BH104
Matrix: Water

Collected: 2023/03/20
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8563791	N/A	2023/03/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	8563929	N/A	2023/03/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	8566928	N/A	2023/03/23	Massarat Jan
Chromium (VI) in Water	IC	8568596	N/A	2023/03/23	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8568519	N/A	2023/03/24	Kruti Jitesh Patel
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8566864	2023/03/22	2023/03/23	Emir Danisman
Mercury	CV/AA	8568513	2023/03/23	2023/03/23	Jaswinder Kaur
Dissolved Metals by ICPMS	ICP/MS	8566720	N/A	2023/03/23	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8566859	2023/03/22	2023/03/23	Joe Paino
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8570013	N/A	2023/03/24	Jett Wu

Bureau Veritas ID: VIQ003 Dup
Sample ID: BH104
Matrix: Water

Collected: 2023/03/20
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8570013	N/A	2023/03/24	Jett Wu

Bureau Veritas ID: VIQ004
Sample ID: DUP
Matrix: Water

Collected: 2023/03/20
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8563791	N/A	2023/03/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	8563929	N/A	2023/03/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	8566928	N/A	2023/03/23	Massarat Jan
Chromium (VI) in Water	IC	8568596	N/A	2023/03/23	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8568519	N/A	2023/03/24	Kruti Jitesh Patel
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8566864	2023/03/22	2023/03/23	Emir Danisman
Mercury	CV/AA	8568513	2023/03/23	2023/03/23	Jaswinder Kaur
Dissolved Metals by ICPMS	ICP/MS	8566720	N/A	2023/03/24	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8566859	2023/03/22	2023/03/23	Joe Paino
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8570013	N/A	2023/03/24	Jett Wu

Bureau Veritas ID: VIQ005
Sample ID: BH107
Matrix: Water

Collected: 2023/03/20
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8563791	N/A	2023/03/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	8563929	N/A	2023/03/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	8566928	N/A	2023/03/23	Massarat Jan
Chromium (VI) in Water	IC	8568596	N/A	2023/03/23	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8568519	N/A	2023/03/24	Kruti Jitesh Patel

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

TEST SUMMARY

Bureau Veritas ID: VIQ005
Sample ID: BH107
Matrix: Water

Collected: 2023/03/20
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8566864	2023/03/22	2023/03/23	Emir Danisman
Mercury	CV/AA	8568513	2023/03/23	2023/03/23	Jaswinder Kaur
Dissolved Metals by ICPMS	ICP/MS	8566720	N/A	2023/03/23	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8566859	2023/03/22	2023/03/23	Joe Paino
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8570013	N/A	2023/03/24	Jett Wu

Bureau Veritas ID: VIQ006
Sample ID: BH106
Matrix: Water

Collected: 2023/03/21
Shipped:
Received: 2023/03/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8563791	N/A	2023/03/27	Automated Statchk
1,3-Dichloropropene Sum	CALC	8563929	N/A	2023/03/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	8566928	N/A	2023/03/23	Massarat Jan
Chromium (VI) in Water	IC	8568596	N/A	2023/03/23	Theodora Luck
Free (WAD) Cyanide	SKAL/CN	8568519	N/A	2023/03/24	Kruti Jitesh Patel
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8566864	2023/03/22	2023/03/23	Emir Danisman
Mercury	CV/AA	8568513	2023/03/23	2023/03/23	Jaswinder Kaur
Dissolved Metals by ICPMS	ICP/MS	8566720	N/A	2023/03/23	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8566859	2023/03/22	2023/03/23	Joe Paino
Volatile Organic Compounds and F1 PHCs	GC/MSFD	8570013	N/A	2023/03/24	Jett Wu

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

Cooler custody seal present and intact.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8566859	D10-Anthracene	2023/03/23	103	50 - 130	99	50 - 130	103	%		
8566859	D14-Terphenyl (FS)	2023/03/23	103	50 - 130	97	50 - 130	100	%		
8566859	D8-Acenaphthylene	2023/03/23	103	50 - 130	100	50 - 130	103	%		
8566864	o-Terphenyl	2023/03/23	92	60 - 130	94	60 - 130	89	%		
8570013	4-Bromofluorobenzene	2023/03/24	98	70 - 130	100	70 - 130	86	%		
8570013	D4-1,2-Dichloroethane	2023/03/24	96	70 - 130	94	70 - 130	93	%		
8570013	D8-Toluene	2023/03/24	97	70 - 130	96	70 - 130	97	%		
8566720	Dissolved Antimony (Sb)	2023/03/23	114	80 - 120	103	80 - 120	<0.50	ug/L		
8566720	Dissolved Arsenic (As)	2023/03/23	111	80 - 120	99	80 - 120	<1.0	ug/L		
8566720	Dissolved Barium (Ba)	2023/03/23	107	80 - 120	99	80 - 120	<2.0	ug/L		
8566720	Dissolved Beryllium (Be)	2023/03/23	110	80 - 120	99	80 - 120	<0.40	ug/L		
8566720	Dissolved Boron (B)	2023/03/23	104	80 - 120	99	80 - 120	<10	ug/L		
8566720	Dissolved Cadmium (Cd)	2023/03/23	108	80 - 120	98	80 - 120	<0.090	ug/L		
8566720	Dissolved Chromium (Cr)	2023/03/23	109	80 - 120	97	80 - 120	<5.0	ug/L		
8566720	Dissolved Cobalt (Co)	2023/03/23	109	80 - 120	98	80 - 120	<0.50	ug/L		
8566720	Dissolved Copper (Cu)	2023/03/23	110	80 - 120	100	80 - 120	<0.90	ug/L		
8566720	Dissolved Lead (Pb)	2023/03/23	106	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
8566720	Dissolved Molybdenum (Mo)	2023/03/23	117	80 - 120	103	80 - 120	<0.50	ug/L		
8566720	Dissolved Nickel (Ni)	2023/03/23	107	80 - 120	97	80 - 120	<1.0	ug/L		
8566720	Dissolved Selenium (Se)	2023/03/23	109	80 - 120	99	80 - 120	<2.0	ug/L		
8566720	Dissolved Silver (Ag)	2023/03/23	99	80 - 120	103	80 - 120	<0.090	ug/L		
8566720	Dissolved Sodium (Na)	2023/03/23	106	80 - 120	95	80 - 120	<100	ug/L		
8566720	Dissolved Thallium (Tl)	2023/03/23	110	80 - 120	100	80 - 120	<0.050	ug/L		
8566720	Dissolved Uranium (U)	2023/03/23	109	80 - 120	99	80 - 120	<0.10	ug/L		
8566720	Dissolved Vanadium (V)	2023/03/23	108	80 - 120	97	80 - 120	<0.50	ug/L		
8566720	Dissolved Zinc (Zn)	2023/03/23	108	80 - 120	98	80 - 120	<5.0	ug/L		
8566859	1-Methylnaphthalene	2023/03/23	95	50 - 130	97	50 - 130	<0.050	ug/L	NC	30
8566859	2-Methylnaphthalene	2023/03/23	89	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
8566859	Acenaphthene	2023/03/23	111	50 - 130	112	50 - 130	<0.050	ug/L	NC	30
8566859	Acenaphthylene	2023/03/23	112	50 - 130	113	50 - 130	<0.050	ug/L	NC	30
8566859	Anthracene	2023/03/23	111	50 - 130	113	50 - 130	<0.050	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8566859	Benzo(a)anthracene	2023/03/23	115	50 - 130	116	50 - 130	<0.050	ug/L	NC	30
8566859	Benzo(a)pyrene	2023/03/23	107	50 - 130	109	50 - 130	<0.0090	ug/L	NC	30
8566859	Benzo(b/j)fluoranthene	2023/03/23	112	50 - 130	114	50 - 130	<0.050	ug/L	NC	30
8566859	Benzo(g,h,i)perylene	2023/03/23	104	50 - 130	107	50 - 130	<0.050	ug/L	NC	30
8566859	Benzo(k)fluoranthene	2023/03/23	104	50 - 130	106	50 - 130	<0.050	ug/L	NC	30
8566859	Chrysene	2023/03/23	116	50 - 130	117	50 - 130	<0.050	ug/L	NC	30
8566859	Dibenzo(a,h)anthracene	2023/03/23	90	50 - 130	92	50 - 130	<0.050	ug/L	NC	30
8566859	Fluoranthene	2023/03/23	122	50 - 130	123	50 - 130	<0.050	ug/L	NC	30
8566859	Fluorene	2023/03/23	109	50 - 130	111	50 - 130	<0.050	ug/L	NC	30
8566859	Indeno(1,2,3-cd)pyrene	2023/03/23	101	50 - 130	103	50 - 130	<0.050	ug/L	NC	30
8566859	Naphthalene	2023/03/23	102	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8566859	Phenanthrene	2023/03/23	109	50 - 130	110	50 - 130	<0.030	ug/L	NC	30
8566859	Pyrene	2023/03/23	119	50 - 130	121	50 - 130	<0.050	ug/L	NC	30
8566864	F2 (C10-C16 Hydrocarbons)	2023/03/23	92	60 - 130	95	60 - 130	<100	ug/L	NC	30
8566864	F3 (C16-C34 Hydrocarbons)	2023/03/23	93	60 - 130	97	60 - 130	<200	ug/L	NC	30
8566864	F4 (C34-C50 Hydrocarbons)	2023/03/23	93	60 - 130	94	60 - 130	<200	ug/L	NC	30
8566928	Dissolved Chloride (Cl-)	2023/03/23	102	80 - 120	100	80 - 120	<1.0	mg/L	0.79	20
8568513	Mercury (Hg)	2023/03/23	96	75 - 125	98	80 - 120	<0.10	ug/L	NC	20
8568519	WAD Cyanide (Free)	2023/03/24	105	80 - 120	103	80 - 120	<1	ug/L	NC	20
8568596	Chromium (VI)	2023/03/23	100	80 - 120	104	80 - 120	<0.50	ug/L	2.2	20
8570013	1,1,1,2-Tetrachloroethane	2023/03/24	89	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
8570013	1,1,1-Trichloroethane	2023/03/24	85	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
8570013	1,1,2,2-Tetrachloroethane	2023/03/24	100	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
8570013	1,1,2-Trichloroethane	2023/03/24	89	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
8570013	1,1-Dichloroethane	2023/03/24	88	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
8570013	1,1-Dichloroethylene	2023/03/24	86	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
8570013	1,2-Dichlorobenzene	2023/03/24	89	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
8570013	1,2-Dichloroethane	2023/03/24	83	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
8570013	1,2-Dichloropropane	2023/03/24	90	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
8570013	1,3-Dichlorobenzene	2023/03/24	90	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8570013	1,4-Dichlorobenzene	2023/03/24	97	70 - 130	108	70 - 130	<0.50	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8570013	Acetone (2-Propanone)	2023/03/24	86	60 - 140	87	60 - 140	<10	ug/L	NC	30
8570013	Benzene	2023/03/24	86	70 - 130	95	70 - 130	<0.17	ug/L	NC	30
8570013	Bromodichloromethane	2023/03/24	93	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
8570013	Bromoform	2023/03/24	91	70 - 130	96	70 - 130	<1.0	ug/L	NC	30
8570013	Bromomethane	2023/03/24	90	60 - 140	94	60 - 140	<0.50	ug/L	NC	30
8570013	Carbon Tetrachloride	2023/03/24	80	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8570013	Chlorobenzene	2023/03/24	91	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
8570013	Chloroform	2023/03/24	90	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
8570013	cis-1,2-Dichloroethylene	2023/03/24	94	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
8570013	cis-1,3-Dichloropropene	2023/03/24	83	70 - 130	85	70 - 130	<0.30	ug/L	NC	30
8570013	Dibromochloromethane	2023/03/24	90	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
8570013	Dichlorodifluoromethane (FREON 12)	2023/03/24	81	60 - 140	89	60 - 140	<1.0	ug/L	NC	30
8570013	Ethylbenzene	2023/03/24	81	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8570013	Ethylene Dibromide	2023/03/24	91	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8570013	F1 (C6-C10) - BTEX	2023/03/24					<25	ug/L	NC	30
8570013	F1 (C6-C10)	2023/03/24	95	60 - 140	100	60 - 140	<25	ug/L	NC	30
8570013	Hexane	2023/03/24	89	70 - 130	96	70 - 130	<1.0	ug/L	NC	30
8570013	Methyl Ethyl Ketone (2-Butanone)	2023/03/24	86	60 - 140	88	60 - 140	<10	ug/L	NC	30
8570013	Methyl Isobutyl Ketone	2023/03/24	90	70 - 130	97	70 - 130	<5.0	ug/L	NC	30
8570013	Methyl t-butyl ether (MTBE)	2023/03/24	80	70 - 130	86	70 - 130	<0.50	ug/L	NC	30
8570013	Methylene Chloride(Dichloromethane)	2023/03/24	100	70 - 130	105	70 - 130	<2.0	ug/L	NC	30
8570013	o-Xylene	2023/03/24	82	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8570013	p+m-Xylene	2023/03/24	81	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
8570013	Styrene	2023/03/24	94	70 - 130	107	70 - 130	<0.50	ug/L	NC	30
8570013	Tetrachloroethylene	2023/03/24	79	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
8570013	Toluene	2023/03/24	83	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
8570013	Total Xylenes	2023/03/24					<0.20	ug/L	NC	30
8570013	trans-1,2-Dichloroethylene	2023/03/24	90	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
8570013	trans-1,3-Dichloropropene	2023/03/24	83	70 - 130	83	70 - 130	<0.40	ug/L	NC	30
8570013	Trichloroethylene	2023/03/24	92	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
8570013	Trichlorofluoromethane (FREON 11)	2023/03/24	83	70 - 130	91	70 - 130	<0.50	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8570013	Vinyl Chloride	2023/03/24	83	70 - 130	91	70 - 130	<0.20	ug/L	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 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

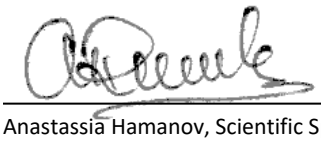
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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 {0}, {1} responsible for {2} {3} laboratory operations.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

Page 1 of 1

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C20582	Bureau Veritas Job #:	Bottle Order #: 925895
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:			
Address:	1 Banigan Drive, Toronto ON M4H 1G3	Address:		Project:	22-282	COC #: C#925895-01-01	Project Manager: Marijane Cruz
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Project Name:	2072 Lakeshore Road, Burlingto		
Email:	llevesque@groundedeng.ca	Email:	llevesque@groundedeng.ca	Site #:			
				Sampled By:	CSH		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☒ Table 3 ☐ Agr/Other ☒ For RSC	☐ MISA Municipality	
☐ Table	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☒

(will be applied if Rush TAT is not specified)

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

Date Required: _____ Time Required: _____ ☐

Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	O.Reg 153 Metals & Inorganics Pkg (Wtr)	O.Reg 153 PAHs	O.Reg 153 VOCs by HS & F1-F4	Halton Sanitary & Combined Bylaw (2-03)	Halton Storm Sewer Bylaw (2-03)	# of Bottles	Comments
1		BH 104	23-03-20	13:00	GW		X	X	X			9	
2		DUP	↓	"	↓		X	X	X			9	
3		BH 107	↓	15:00			X	X	X			9	
4		BH 106	23-03-21	10:30	↓		X	X	X			9	
5													
6													
7													
8													
9													
10													

21-Mar-23 15:47
Marijane Cruz
C379625
RJM ENV-1390

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Christopher Hartley	23 03 21	13:00	ANERI ANERI	2023/03/21	15 47	

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	6 | 7 | 8	Present	✓	
		Intact	✓	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

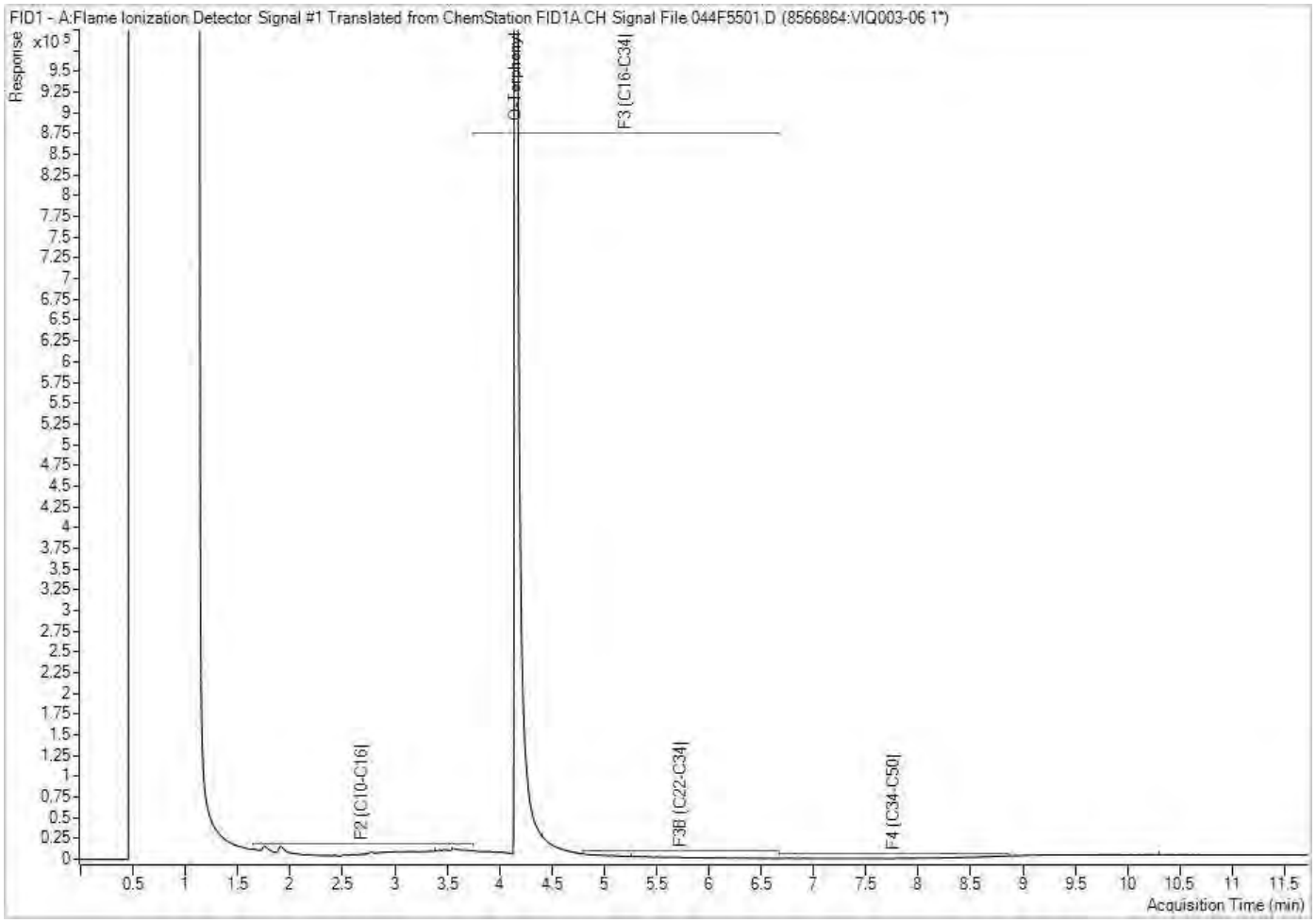
OWCE

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27
Bureau Veritas Sample: VIQ003

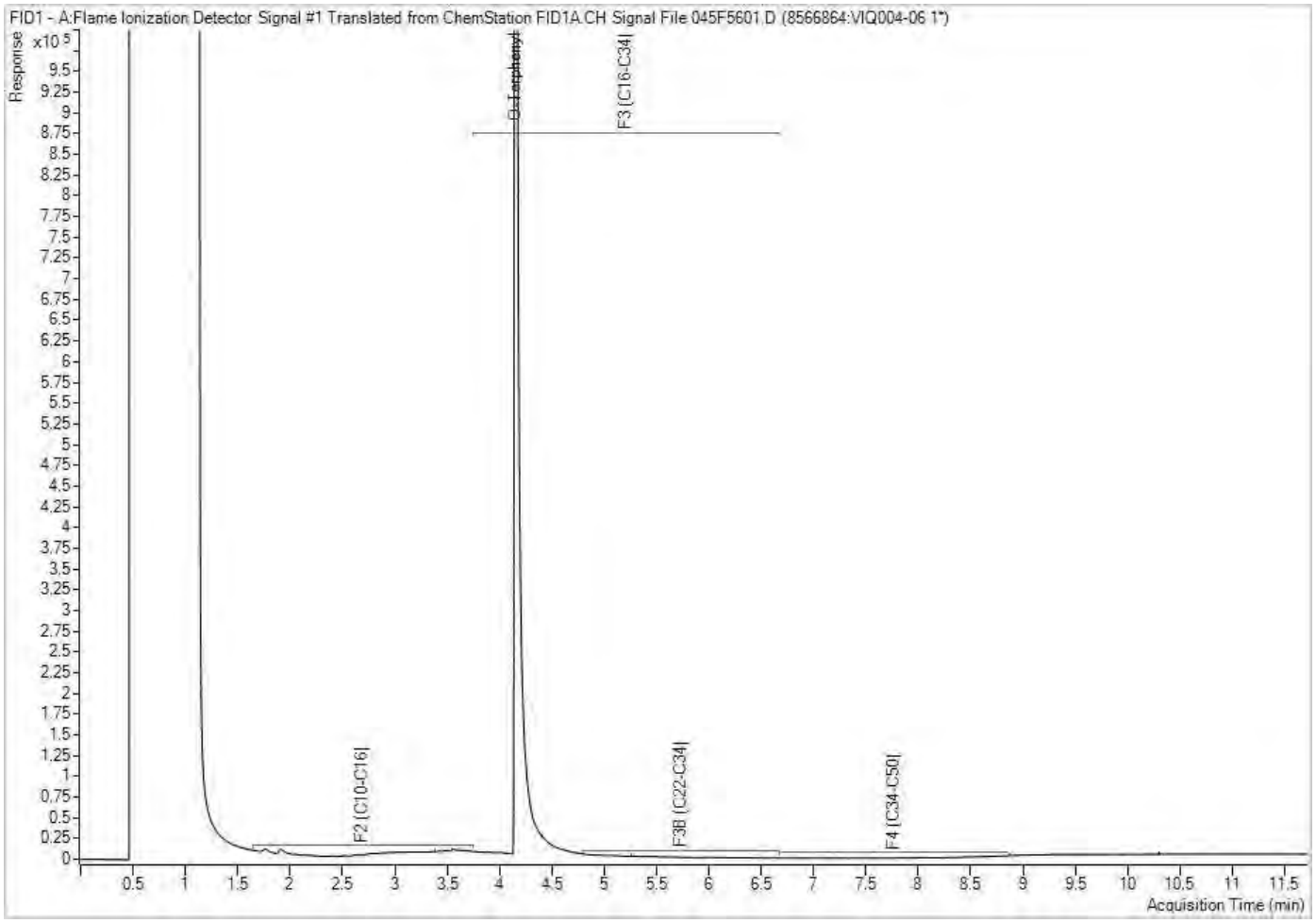
Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 Lakeshore Road, Burlington, ON
Client ID: BH104

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

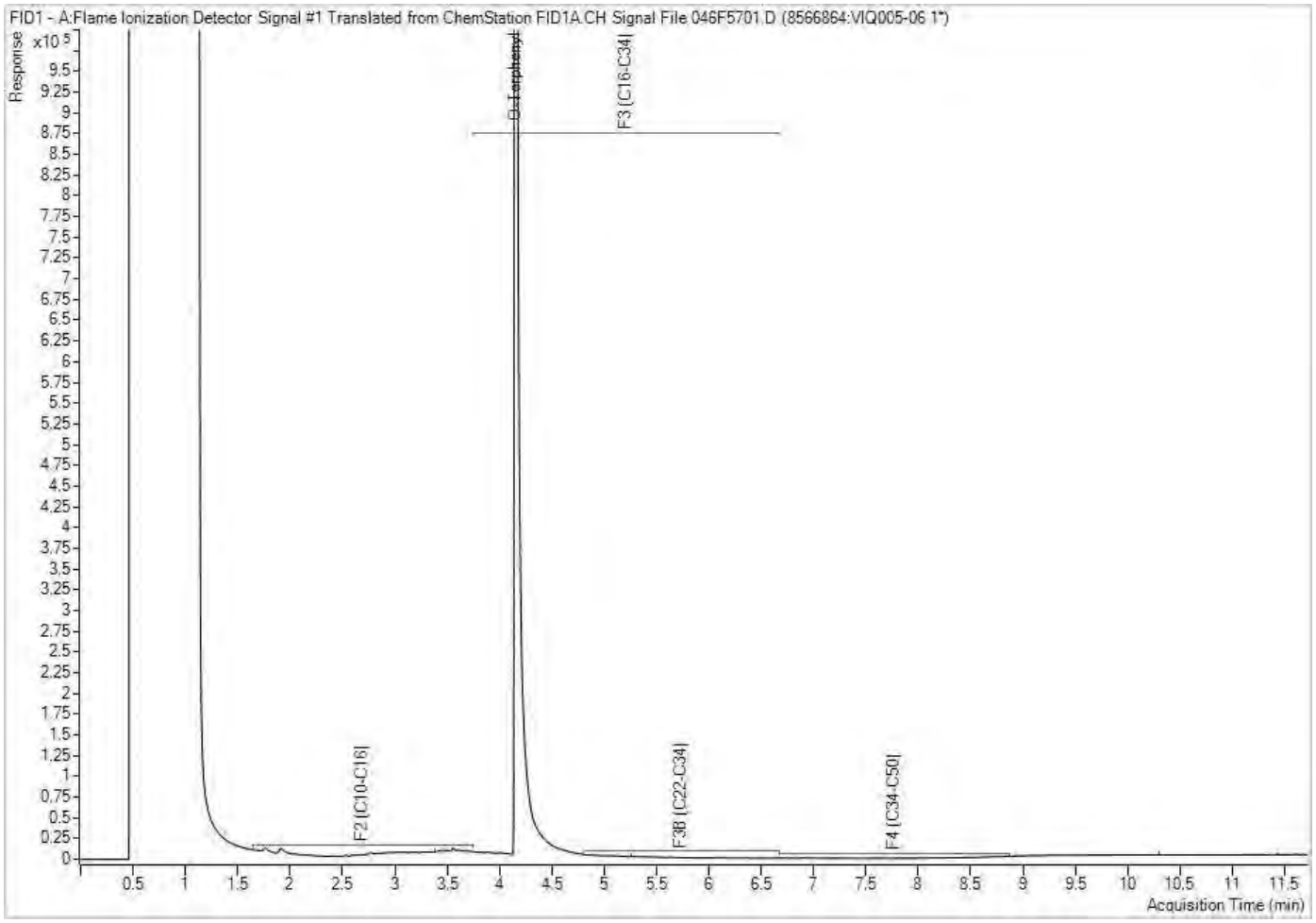


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27
Bureau Veritas Sample: VIQ005

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 Lakeshore Road, Burlington, ON
Client ID: BH107

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

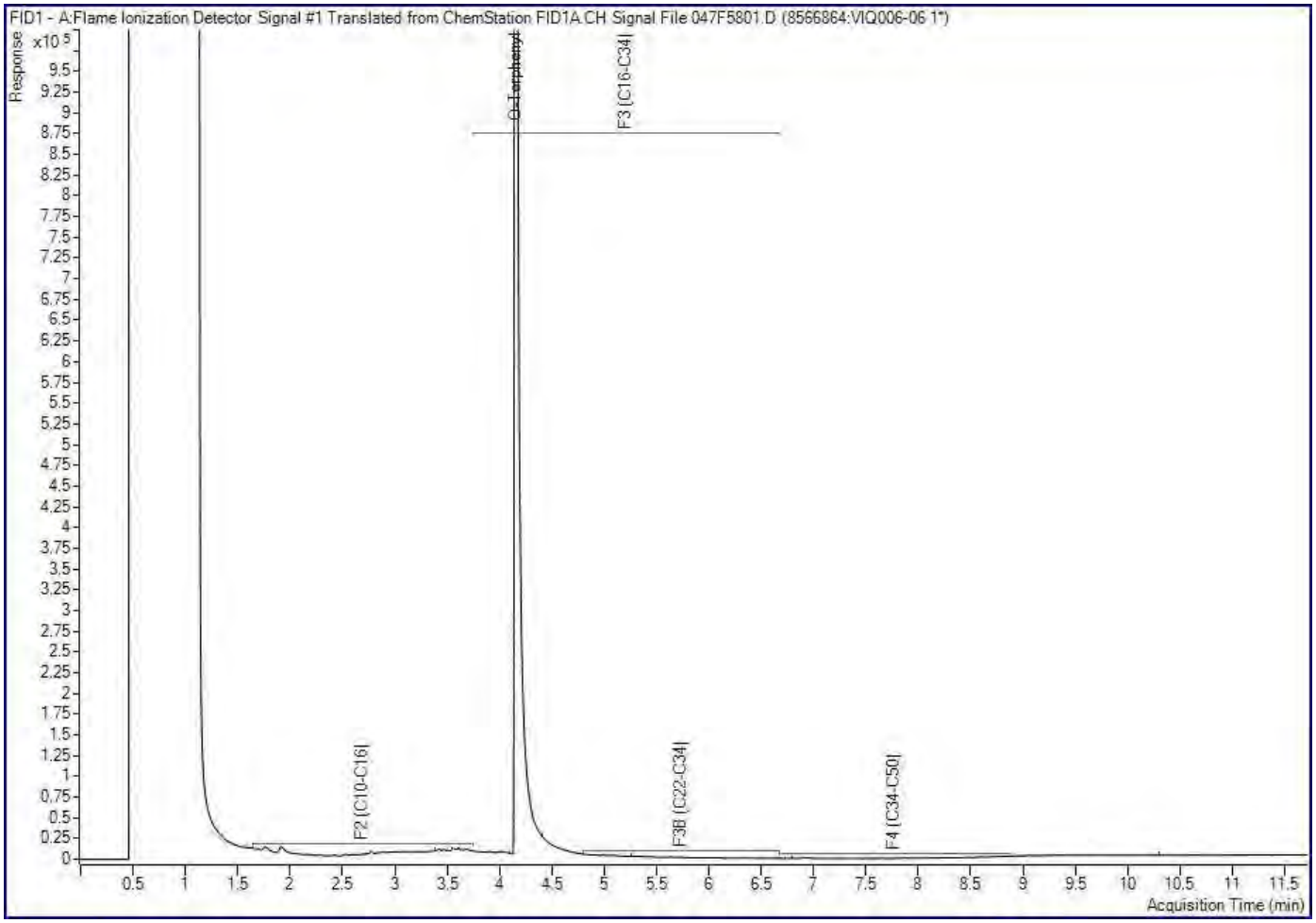


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27
Bureau Veritas Sample: VIQ006

Grounded Engineering Inc.
Client Project #: 22-282
Project name: 2072 Lakeshore Road, Burlington, ON
Client ID: BH106

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C379625
Report Date: 2023/03/27

Grounded Engineering Inc.
Client Project #: 22-282
Site Location: 2072 Lakeshore Road, Burlington, ON
Sampler Initials: CSH

Exceedance Summary Table – Reg153/04 T3-GW-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH106	VIQ006-01	Dissolved Chloride (Cl-)	2300	3200	20	mg/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Maxxam
A Bureau Veritas Group Company

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 701944-01-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/22
Report #: R5603174
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B930203
Received: 2019/02/04, 14:10

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	1	N/A	2019/02/08	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	3	N/A	2019/02/06		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1)	3	2019/02/07	2019/02/08	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	2	2019/02/06	2019/02/06	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	2	2019/02/19	2019/02/19	CAM SOP-00447	EPA 6020B m
Moisture	4	N/A	2019/02/04	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2019/02/07	2019/02/08	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	2	2019/02/07	2019/02/07	CAM SOP-00413	EPA 9045 D m
Sieve, 75um	1	N/A	2019/02/08	CAM SOP-00467	Carter 2nd ed m
Volatile Organic Compounds and F1 PHCs	3	N/A	2019/02/05	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, 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) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 701944-01-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/22
Report #: R5603174
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B930203

Received: 2019/02/04, 14:10

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.

Encryption Key

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

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

RESULTS OF ANALYSES OF SOIL

Maxxam ID		IXF363			IXF364			IXF365		
Sampling Date		2019/02/02 09:20			2019/02/02 09:30			2019/02/02 10:30		
COC Number		701944-01-01			701944-01-01			701944-01-01		
	UNITS	MW01-1	RDL	QC Batch	MW01-2	RDL	QC Batch	MW02-3	RDL	QC Batch
Inorganics										
Moisture	%	5.2	1.0	5959711	8.5	1.0	5959711	8.3	1.0	5959711
Miscellaneous Parameters										
Grain Size	%				COARSE	N/A	5964289			
Sieve - #200 (<0.075mm)	%				19	1	5964289			
Sieve - #200 (>0.075mm)	%				81	1	5964289			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam ID		IXF366		IXF367			IXF368	
Sampling Date		2019/02/02 11:30		2019/02/02 11:45			2019/02/02 09:40	
COC Number		701944-01-01		701944-01-01			701944-01-01	
	UNITS	MW03-2	QC Batch	MW03-3	RDL	QC Batch	MW01-3	QC Batch
Inorganics								
Moisture	%			9.6	1.0	5959711		
Available (CaCl2) pH	pH	8.15	5964367				7.92	5964367

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		IXF365	IXF367		IZO228	IZO229		
Sampling Date		2019/02/02 10:30	2019/02/02 11:45		2019/02/02 10:30	2019/02/02 10:30		
COC Number		701944-01-01	701944-01-01		701944-01-01	701944-01-01		
	UNITS	MW02-3	MW03-3	QC Batch	MW02-3- A	MW02-3- B	RDL	QC Batch
Metals								
Acid Extractable Lead (Pb)	ug/g	130	120	5962332	110	110	1.0	5980014

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		IXF363		
Sampling Date		2019/02/02 09:20		
COC Number		701944-01-01		
	UNITS	MW01-1	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	5958783
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.0050	0.0050	5965917
Acenaphthylene	ug/g	<0.0050	0.0050	5965917
Anthracene	ug/g	<0.0050	0.0050	5965917
Benzo(a)anthracene	ug/g	<0.0050	0.0050	5965917
Benzo(a)pyrene	ug/g	<0.0050	0.0050	5965917
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	5965917
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	5965917
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	5965917
Chrysene	ug/g	<0.0050	0.0050	5965917
Dibenz(a,h)anthracene	ug/g	<0.0050	0.0050	5965917
Fluoranthene	ug/g	<0.0050	0.0050	5965917
Fluorene	ug/g	<0.0050	0.0050	5965917
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	5965917
1-Methylnaphthalene	ug/g	<0.0050	0.0050	5965917
2-Methylnaphthalene	ug/g	<0.0050	0.0050	5965917
Naphthalene	ug/g	<0.0050	0.0050	5965917
Phenanthrene	ug/g	<0.0050	0.0050	5965917
Pyrene	ug/g	<0.0050	0.0050	5965917
Surrogate Recovery (%)				
D10-Anthracene	%	103		5965917
D14-Terphenyl (FS)	%	105		5965917
D8-Acenaphthylene	%	96		5965917

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		IXF364	IXF365	IXF367		
Sampling Date		2019/02/02 09:30	2019/02/02 10:30	2019/02/02 11:45		
COC Number		701944-01-01	701944-01-01	701944-01-01		
	UNITS	MW01-2	MW02-3	MW03-3	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	5958645
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.50	<0.50	<0.50	0.50	5960708
Benzene	ug/g	<0.020	<0.020	<0.020	0.020	5960708
Bromodichloromethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Bromoform	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Bromomethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Carbon Tetrachloride	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Chlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Chloroform	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Dibromochloromethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,2-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,3-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,4-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,1-Dichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,2-Dichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,1-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
cis-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
trans-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,2-Dichloropropane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	5960708
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	5960708
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	0.020	5960708
Ethylene Dibromide	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Hexane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Methylene Chloride(Dichloromethane)	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	<0.50	<0.50	0.50	5960708
Methyl Isobutyl Ketone	ug/g	<0.50	<0.50	<0.50	0.50	5960708
Methyl t-butyl ether (MTBE)	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Styrene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,1,1,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,1,2,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		IXF364	IXF365	IXF367		
Sampling Date		2019/02/02 09:30	2019/02/02 10:30	2019/02/02 11:45		
COC Number		701944-01-01	701944-01-01	701944-01-01		
	UNITS	MW01-2	MW02-3	MW03-3	RDL	QC Batch
Tetrachloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	5960708
1,1,1-Trichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
1,1,2-Trichloroethane	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Trichloroethylene	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	<0.050	<0.050	0.050	5960708
Vinyl Chloride	ug/g	<0.020	<0.020	<0.020	0.020	5960708
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	5960708
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	5960708
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	5960708
F1 (C6-C10)	ug/g	<10	<10	<10	10	5960708
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	5960708
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	91	93	93		5960708
D10-o-Xylene	%	85	87	94		5960708
D4-1,2-Dichloroethane	%	112	113	114		5960708
D8-Toluene	%	89	89	89		5960708

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		IXF364	IXF365	IXF367		
Sampling Date		2019/02/02 09:30	2019/02/02 10:30	2019/02/02 11:45		
COC Number		701944-01-01	701944-01-01	701944-01-01		
	UNITS	MW01-2	MW02-3	MW03-3	RDL	QC Batch
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	10	5964380
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	50	5964380
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	50	5964380
Reached Baseline at C50	ug/g	Yes	Yes	Yes		5964380
Surrogate Recovery (%)						
o-Terphenyl	%	107	88	92		5964380

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

GENERAL COMMENTS

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

Package 1	3.3°C

Revised Report (2019/02/22) : Different jars were used to analyze Pb for sample MW02-3 and these are reported as the following samples on this report, MW02-3-A, MW02-3-B .

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
5959711	JGH	RPD	Moisture	2019/02/04	2.1		%	20
5960708	CKH	Matrix Spike	4-Bromofluorobenzene	2019/02/05		103	%	60 - 140
			D10-o-Xylene	2019/02/05		105	%	60 - 130
			D4-1,2-Dichloroethane	2019/02/05		105	%	60 - 140
			D8-Toluene	2019/02/05		106	%	60 - 140
			Acetone (2-Propanone)	2019/02/05		101	%	60 - 140
			Benzene	2019/02/05		89	%	60 - 140
			Bromodichloromethane	2019/02/05		95	%	60 - 140
			Bromoform	2019/02/05		96	%	60 - 140
			Bromomethane	2019/02/05		93	%	60 - 140
			Carbon Tetrachloride	2019/02/05		92	%	60 - 140
			Chlorobenzene	2019/02/05		94	%	60 - 140
			Chloroform	2019/02/05		93	%	60 - 140
			Dibromochloromethane	2019/02/05		97	%	60 - 140
			1,2-Dichlorobenzene	2019/02/05		92	%	60 - 140
			1,3-Dichlorobenzene	2019/02/05		92	%	60 - 140
			1,4-Dichlorobenzene	2019/02/05		95	%	60 - 140
			Dichlorodifluoromethane (FREON 12)	2019/02/05		82	%	60 - 140
			1,1-Dichloroethane	2019/02/05		95	%	60 - 140
			1,2-Dichloroethane	2019/02/05		98	%	60 - 140
			1,1-Dichloroethylene	2019/02/05		91	%	60 - 140
			cis-1,2-Dichloroethylene	2019/02/05		91	%	60 - 140
			trans-1,2-Dichloroethylene	2019/02/05		91	%	60 - 140
			1,2-Dichloropropane	2019/02/05		95	%	60 - 140
			cis-1,3-Dichloropropene	2019/02/05		95	%	60 - 140
			trans-1,3-Dichloropropene	2019/02/05		99	%	60 - 140
			Ethylbenzene	2019/02/05		93	%	60 - 140
			Ethylene Dibromide	2019/02/05		98	%	60 - 140
			Hexane	2019/02/05		93	%	60 - 140
			Methylene Chloride(Dichloromethane)	2019/02/05		89	%	60 - 140
			Methyl Ethyl Ketone (2-Butanone)	2019/02/05		108	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/05		87	%	60 - 140
			Methyl t-butyl ether (MTBE)	2019/02/05		92	%	60 - 140
			Styrene	2019/02/05		100	%	60 - 140
			1,1,1,2-Tetrachloroethane	2019/02/05		96	%	60 - 140
			1,1,2,2-Tetrachloroethane	2019/02/05		97	%	60 - 140
			Tetrachloroethylene	2019/02/05		93	%	60 - 140
			Toluene	2019/02/05		95	%	60 - 140
			1,1,1-Trichloroethane	2019/02/05		91	%	60 - 140
			1,1,2-Trichloroethane	2019/02/05		99	%	60 - 140
			Trichloroethylene	2019/02/05		92	%	60 - 140
			Trichlorofluoromethane (FREON 11)	2019/02/05		91	%	60 - 140
			Vinyl Chloride	2019/02/05		86	%	60 - 140
			p+m-Xylene	2019/02/05		95	%	60 - 140
			o-Xylene	2019/02/05		95	%	60 - 140
			F1 (C6-C10)	2019/02/05		87	%	60 - 140
5960708	CKH	Spiked Blank	4-Bromofluorobenzene	2019/02/05		104	%	60 - 140
			D10-o-Xylene	2019/02/05		104	%	60 - 130
			D4-1,2-Dichloroethane	2019/02/05		110	%	60 - 140
			D8-Toluene	2019/02/05		106	%	60 - 140
			Acetone (2-Propanone)	2019/02/05		122	%	60 - 140
			Benzene	2019/02/05		92	%	60 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Bromodichloromethane	2019/02/05		100	%	60 - 130
			Bromoform	2019/02/05		105	%	60 - 130
			Bromomethane	2019/02/05		95	%	60 - 140
			Carbon Tetrachloride	2019/02/05		93	%	60 - 130
			Chlorobenzene	2019/02/05		96	%	60 - 130
			Chloroform	2019/02/05		98	%	60 - 130
			Dibromochloromethane	2019/02/05		103	%	60 - 130
			1,2-Dichlorobenzene	2019/02/05		94	%	60 - 130
			1,3-Dichlorobenzene	2019/02/05		92	%	60 - 130
			1,4-Dichlorobenzene	2019/02/05		95	%	60 - 130
			Dichlorodifluoromethane (FREON 12)	2019/02/05		83	%	60 - 140
			1,1-Dichloroethane	2019/02/05		97	%	60 - 130
			1,2-Dichloroethane	2019/02/05		104	%	60 - 130
			1,1-Dichloroethylene	2019/02/05		91	%	60 - 130
			cis-1,2-Dichloroethylene	2019/02/05		96	%	60 - 130
			trans-1,2-Dichloroethylene	2019/02/05		94	%	60 - 130
			1,2-Dichloropropane	2019/02/05		98	%	60 - 130
			cis-1,3-Dichloropropene	2019/02/05		98	%	60 - 130
			trans-1,3-Dichloropropene	2019/02/05		103	%	60 - 130
			Ethylbenzene	2019/02/05		93	%	60 - 130
			Ethylene Dibromide	2019/02/05		105	%	60 - 130
			Hexane	2019/02/05		93	%	60 - 130
			Methylene Chloride(Dichloromethane)	2019/02/05		93	%	60 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/02/05		134	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/05		105	%	60 - 130
			Methyl t-butyl ether (MTBE)	2019/02/05		94	%	60 - 130
			Styrene	2019/02/05		105	%	60 - 130
			1,1,1,2-Tetrachloroethane	2019/02/05		98	%	60 - 130
			1,1,2,2-Tetrachloroethane	2019/02/05		108	%	60 - 130
			Tetrachloroethylene	2019/02/05		92	%	60 - 130
			Toluene	2019/02/05		97	%	60 - 130
			1,1,1-Trichloroethane	2019/02/05		91	%	60 - 130
			1,1,2-Trichloroethane	2019/02/05		104	%	60 - 130
			Trichloroethylene	2019/02/05		94	%	60 - 130
			Trichlorofluoromethane (FREON 11)	2019/02/05		91	%	60 - 130
			Vinyl Chloride	2019/02/05		86	%	60 - 130
			p+m-Xylene	2019/02/05		96	%	60 - 130
			o-Xylene	2019/02/05		97	%	60 - 130
			F1 (C6-C10)	2019/02/05		91	%	80 - 120
5960708	CKH	Method Blank	4-Bromofluorobenzene	2019/02/05		92	%	60 - 140
			D10-o-Xylene	2019/02/05		77	%	60 - 130
			D4-1,2-Dichloroethane	2019/02/05		112	%	60 - 140
			D8-Toluene	2019/02/05		90	%	60 - 140
			Acetone (2-Propanone)	2019/02/05	<0.50		ug/g	
			Benzene	2019/02/05	<0.020		ug/g	
			Bromodichloromethane	2019/02/05	<0.050		ug/g	
			Bromoform	2019/02/05	<0.050		ug/g	
			Bromomethane	2019/02/05	<0.050		ug/g	
			Carbon Tetrachloride	2019/02/05	<0.050		ug/g	
			Chlorobenzene	2019/02/05	<0.050		ug/g	
			Chloroform	2019/02/05	<0.050		ug/g	
			Dibromochloromethane	2019/02/05	<0.050		ug/g	

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,2-Dichlorobenzene	2019/02/05	<0.050		ug/g	
			1,3-Dichlorobenzene	2019/02/05	<0.050		ug/g	
			1,4-Dichlorobenzene	2019/02/05	<0.050		ug/g	
			Dichlorodifluoromethane (FREON 12)	2019/02/05	<0.050		ug/g	
			1,1-Dichloroethane	2019/02/05	<0.050		ug/g	
			1,2-Dichloroethane	2019/02/05	<0.050		ug/g	
			1,1-Dichloroethylene	2019/02/05	<0.050		ug/g	
			cis-1,2-Dichloroethylene	2019/02/05	<0.050		ug/g	
			trans-1,2-Dichloroethylene	2019/02/05	<0.050		ug/g	
			1,2-Dichloropropane	2019/02/05	<0.050		ug/g	
			cis-1,3-Dichloropropene	2019/02/05	<0.030		ug/g	
			trans-1,3-Dichloropropene	2019/02/05	<0.040		ug/g	
			Ethylbenzene	2019/02/05	<0.020		ug/g	
			Ethylene Dibromide	2019/02/05	<0.050		ug/g	
			Hexane	2019/02/05	<0.050		ug/g	
			Methylene Chloride(Dichloromethane)	2019/02/05	<0.050		ug/g	
			Methyl Ethyl Ketone (2-Butanone)	2019/02/05	<0.50		ug/g	
			Methyl Isobutyl Ketone	2019/02/05	<0.50		ug/g	
			Methyl t-butyl ether (MTBE)	2019/02/05	<0.050		ug/g	
			Styrene	2019/02/05	<0.050		ug/g	
			1,1,1,2-Tetrachloroethane	2019/02/05	<0.050		ug/g	
			1,1,2,2-Tetrachloroethane	2019/02/05	<0.050		ug/g	
			Tetrachloroethylene	2019/02/05	<0.050		ug/g	
			Toluene	2019/02/05	<0.020		ug/g	
			1,1,1-Trichloroethane	2019/02/05	<0.050		ug/g	
			1,1,2-Trichloroethane	2019/02/05	<0.050		ug/g	
			Trichloroethylene	2019/02/05	<0.050		ug/g	
			Trichlorofluoromethane (FREON 11)	2019/02/05	<0.050		ug/g	
			Vinyl Chloride	2019/02/05	<0.020		ug/g	
			p+m-Xylene	2019/02/05	<0.020		ug/g	
			o-Xylene	2019/02/05	<0.020		ug/g	
			Total Xylenes	2019/02/05	<0.020		ug/g	
			F1 (C6-C10)	2019/02/05	<10		ug/g	
			F1 (C6-C10) - BTEX	2019/02/05	<10		ug/g	
5960708	CKH	RPD	Acetone (2-Propanone)	2019/02/05	NC		%	50
			Benzene	2019/02/05	NC		%	50
			Bromodichloromethane	2019/02/05	NC		%	50
			Bromoform	2019/02/05	NC		%	50
			Bromomethane	2019/02/05	NC		%	50
			Carbon Tetrachloride	2019/02/05	NC		%	50
			Chlorobenzene	2019/02/05	NC		%	50
			Chloroform	2019/02/05	NC		%	50
			Dibromochloromethane	2019/02/05	NC		%	50
			1,2-Dichlorobenzene	2019/02/05	NC		%	50
			1,3-Dichlorobenzene	2019/02/05	NC		%	50
			1,4-Dichlorobenzene	2019/02/05	NC		%	50
			Dichlorodifluoromethane (FREON 12)	2019/02/05	NC		%	50
			1,1-Dichloroethane	2019/02/05	NC		%	50
			1,2-Dichloroethane	2019/02/05	NC		%	50
			1,1-Dichloroethylene	2019/02/05	NC		%	50
			cis-1,2-Dichloroethylene	2019/02/05	NC		%	50
			trans-1,2-Dichloroethylene	2019/02/05	NC		%	50

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,2-Dichloropropane	2019/02/05	NC		%	50
			cis-1,3-Dichloropropene	2019/02/05	NC		%	50
			trans-1,3-Dichloropropene	2019/02/05	NC		%	50
			Ethylbenzene	2019/02/05	NC		%	50
			Ethylene Dibromide	2019/02/05	NC		%	50
			Hexane	2019/02/05	NC		%	50
			Methylene Chloride(Dichloromethane)	2019/02/05	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2019/02/05	NC		%	50
			Methyl Isobutyl Ketone	2019/02/05	NC		%	50
			Methyl t-butyl ether (MTBE)	2019/02/05	NC		%	50
			Styrene	2019/02/05	NC		%	50
			1,1,1,2-Tetrachloroethane	2019/02/05	NC		%	50
			1,1,2,2-Tetrachloroethane	2019/02/05	NC		%	50
			Tetrachloroethylene	2019/02/05	NC		%	50
			Toluene	2019/02/05	NC		%	50
			1,1,1-Trichloroethane	2019/02/05	NC		%	50
			1,1,2-Trichloroethane	2019/02/05	NC		%	50
			Trichloroethylene	2019/02/05	NC		%	50
			Trichlorofluoromethane (FREON 11)	2019/02/05	NC		%	50
			Vinyl Chloride	2019/02/05	NC		%	50
			p+m-Xylene	2019/02/05	NC		%	50
			o-Xylene	2019/02/05	NC		%	50
			Total Xylenes	2019/02/05	NC		%	50
			F1 (C6-C10)	2019/02/05	NC		%	30
			F1 (C6-C10) - BTEX	2019/02/05	NC		%	30
5962332	MRG	Matrix Spike	Acid Extractable Lead (Pb)	2019/02/06		98	%	75 - 125
5962332	MRG	Spiked Blank	Acid Extractable Lead (Pb)	2019/02/06		99	%	80 - 120
5962332	MRG	Method Blank	Acid Extractable Lead (Pb)	2019/02/06	<1.0		ug/g	
5962332	MRG	RPD	Acid Extractable Lead (Pb)	2019/02/06	1.3		%	30
5964289	GYA	QC Standard	Sieve - #200 (<0.075mm)	2019/02/08		55	%	53 - 58
			Sieve - #200 (>0.075mm)	2019/02/08		45	%	42 - 47
5964289	GYA	RPD	Sieve - #200 (<0.075mm)	2019/02/08	1.2		%	20
			Sieve - #200 (>0.075mm)	2019/02/08	2.4		%	20
5964367	GTO	Spiked Blank	Available (CaCl2) pH	2019/02/07		100	%	97 - 103
5964367	GTO	RPD	Available (CaCl2) pH	2019/02/07	0.60		%	N/A
5964380	KLI	Matrix Spike	o-Terphenyl	2019/02/08		100	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/08		99	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/02/08		100	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2019/02/08		95	%	50 - 130
5964380	KLI	Spiked Blank	o-Terphenyl	2019/02/08		90	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/08		89	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2019/02/08		90	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2019/02/08		85	%	80 - 120
5964380	KLI	Method Blank	o-Terphenyl	2019/02/08		92	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/08	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2019/02/08	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2019/02/08	<50		ug/g	
5964380	KLI	RPD	F2 (C10-C16 Hydrocarbons)	2019/02/08	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2019/02/08	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2019/02/08	NC		%	30
5965917	RAJ	Matrix Spike	D10-Anthracene	2019/02/08		101	%	50 - 130
			D14-Terphenyl (FS)	2019/02/08		106	%	50 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			D8-Acenaphthylene	2019/02/08		95	%	50 - 130
			Acenaphthene	2019/02/08		95	%	50 - 130
			Acenaphthylene	2019/02/08		92	%	50 - 130
			Anthracene	2019/02/08		91	%	50 - 130
			Benzo(a)anthracene	2019/02/08		100	%	50 - 130
			Benzo(a)pyrene	2019/02/08		93	%	50 - 130
			Benzo(b/j)fluoranthene	2019/02/08		88	%	50 - 130
			Benzo(g,h,i)perylene	2019/02/08		87	%	50 - 130
			Benzo(k)fluoranthene	2019/02/08		83	%	50 - 130
			Chrysene	2019/02/08		95	%	50 - 130
			Dibenz(a,h)anthracene	2019/02/08		87	%	50 - 130
			Fluoranthene	2019/02/08		98	%	50 - 130
			Fluorene	2019/02/08		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/02/08		90	%	50 - 130
			1-Methylnaphthalene	2019/02/08		106	%	50 - 130
			2-Methylnaphthalene	2019/02/08		98	%	50 - 130
			Naphthalene	2019/02/08		86	%	50 - 130
			Phenanthrene	2019/02/08		93	%	50 - 130
			Pyrene	2019/02/08		97	%	50 - 130
5965917	RAJ	Spiked Blank	D10-Anthracene	2019/02/08		100	%	50 - 130
			D14-Terphenyl (FS)	2019/02/08		107	%	50 - 130
			D8-Acenaphthylene	2019/02/08		96	%	50 - 130
			Acenaphthene	2019/02/08		95	%	50 - 130
			Acenaphthylene	2019/02/08		94	%	50 - 130
			Anthracene	2019/02/08		90	%	50 - 130
			Benzo(a)anthracene	2019/02/08		100	%	50 - 130
			Benzo(a)pyrene	2019/02/08		93	%	50 - 130
			Benzo(b/j)fluoranthene	2019/02/08		89	%	50 - 130
			Benzo(g,h,i)perylene	2019/02/08		88	%	50 - 130
			Benzo(k)fluoranthene	2019/02/08		84	%	50 - 130
			Chrysene	2019/02/08		95	%	50 - 130
			Dibenz(a,h)anthracene	2019/02/08		86	%	50 - 130
			Fluoranthene	2019/02/08		97	%	50 - 130
			Fluorene	2019/02/08		96	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/02/08		90	%	50 - 130
			1-Methylnaphthalene	2019/02/08		110	%	50 - 130
			2-Methylnaphthalene	2019/02/08		101	%	50 - 130
			Naphthalene	2019/02/08		92	%	50 - 130
			Phenanthrene	2019/02/08		93	%	50 - 130
			Pyrene	2019/02/08		96	%	50 - 130
5965917	RAJ	Method Blank	D10-Anthracene	2019/02/08		89	%	50 - 130
			D14-Terphenyl (FS)	2019/02/08		92	%	50 - 130
			D8-Acenaphthylene	2019/02/08		85	%	50 - 130
			Acenaphthene	2019/02/08	<0.0050		ug/g	
			Acenaphthylene	2019/02/08	<0.0050		ug/g	
			Anthracene	2019/02/08	<0.0050		ug/g	
			Benzo(a)anthracene	2019/02/08	<0.0050		ug/g	
			Benzo(a)pyrene	2019/02/08	<0.0050		ug/g	
			Benzo(b/j)fluoranthene	2019/02/08	<0.0050		ug/g	
			Benzo(g,h,i)perylene	2019/02/08	<0.0050		ug/g	
			Benzo(k)fluoranthene	2019/02/08	<0.0050		ug/g	
			Chrysene	2019/02/08	<0.0050		ug/g	

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dibenz(a,h)anthracene	2019/02/08	<0.0050		ug/g	
			Fluoranthene	2019/02/08	<0.0050		ug/g	
			Fluorene	2019/02/08	<0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2019/02/08	<0.0050		ug/g	
			1-Methylnaphthalene	2019/02/08	<0.0050		ug/g	
			2-Methylnaphthalene	2019/02/08	<0.0050		ug/g	
			Naphthalene	2019/02/08	<0.0050		ug/g	
			Phenanthrene	2019/02/08	<0.0050		ug/g	
			Pyrene	2019/02/08	<0.0050		ug/g	
5965917	RAJ	RPD	Acenaphthene	2019/02/08	NC		%	40
			Acenaphthylene	2019/02/08	NC		%	40
			Anthracene	2019/02/08	NC		%	40
			Benzo(a)anthracene	2019/02/08	NC		%	40
			Benzo(a)pyrene	2019/02/08	NC		%	40
			Benzo(b/j)fluoranthene	2019/02/08	NC		%	40
			Benzo(g,h,i)perylene	2019/02/08	NC		%	40
			Benzo(k)fluoranthene	2019/02/08	NC		%	40
			Chrysene	2019/02/08	NC		%	40
			Dibenz(a,h)anthracene	2019/02/08	NC		%	40
			Fluoranthene	2019/02/08	NC		%	40
			Fluorene	2019/02/08	NC		%	40
			Indeno(1,2,3-cd)pyrene	2019/02/08	NC		%	40
			1-Methylnaphthalene	2019/02/08	NC		%	40
			2-Methylnaphthalene	2019/02/08	NC		%	40
			Naphthalene	2019/02/08	NC		%	40
			Phenanthrene	2019/02/08	NC		%	40
			Pyrene	2019/02/08	NC		%	40
5980014	DT1	Matrix Spike	Acid Extractable Lead (Pb)	2019/02/19		100	%	75 - 125
5980014	DT1	Spiked Blank	Acid Extractable Lead (Pb)	2019/02/19		99	%	80 - 120
5980014	DT1	Method Blank	Acid Extractable Lead (Pb)	2019/02/19	<1.0		ug/g	
5980014	DT1	RPD	Acid Extractable Lead (Pb)	2019/02/19	4.2		%	30

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.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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).

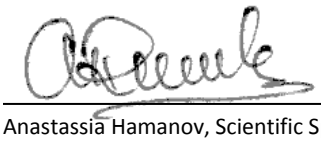
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930203
Report Date: 2019/02/22

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam
A Bureau Veritas Group Company

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free 800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:

Company Name: #47523 Pinchin Ltd
Attention: Accounts Payable
Address: Unit 6 875 Main St W
Hamilton ON L8S 4R9
Tel: (905) 577-6206 Fax: (905) 577-6207
Email: ap@pinchin.com

REPORT TO:

Company Name:
Attention: ~~Celine Hanna~~ Erik Enders Amber Hanley
Address:
Tel: (905) 577-6206 Ext: 1709 Fax:
Email: ~~cchanna@pinchin.com~~ ahanley@pinchin.com

PROJECT INFORMATION:

Quotation #: A70927
P.O. #:
Project: ~~113772.004~~ 233163001
Project Name: Phase II ESA
Site #: 2070 Lakeshore Rd, Burlington
Sampled By: AH

Laboratory Use Only:

Maxxam Job #:
Bottle Order #: 701944
COC #: C#701944-01-01
Project Manager: Antonella Brasil

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)

☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table ___

Other Regulations

☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	BHC BTEX PHCS (F1-F4)	PAHs	Lead	VOCs	PH	Grain Size (Titan)					# of Bottles	Comments
1	MW01-1	MW01-1	19/02/02	9:20am	Soil		X									1	
2	MW01-2	MW01-2	11	9:30am	Soil	X			X		X					4	
3	MW02-3	MW02-3	11	10:50am	Soil	X		X	X							5	
4	MW03-2	MW03-2	11	11:30am	Soil					X						1	
5	MW03-3	MW03-3	11	11:45am	Soil	X		X	X							5	
6	MW01-3	MW01-3	11	9:40am	Soil					X						1	
7																	
8																	
9																	
10																	

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ (call lab for #)

04-Feb-19 14:10
Antonella Brasil
B930203
THP ENV-881

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Amber Hanley	19/02/04	9:20am		W19/02/04	14:10	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	2/4/4	Present	✓	
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

96850

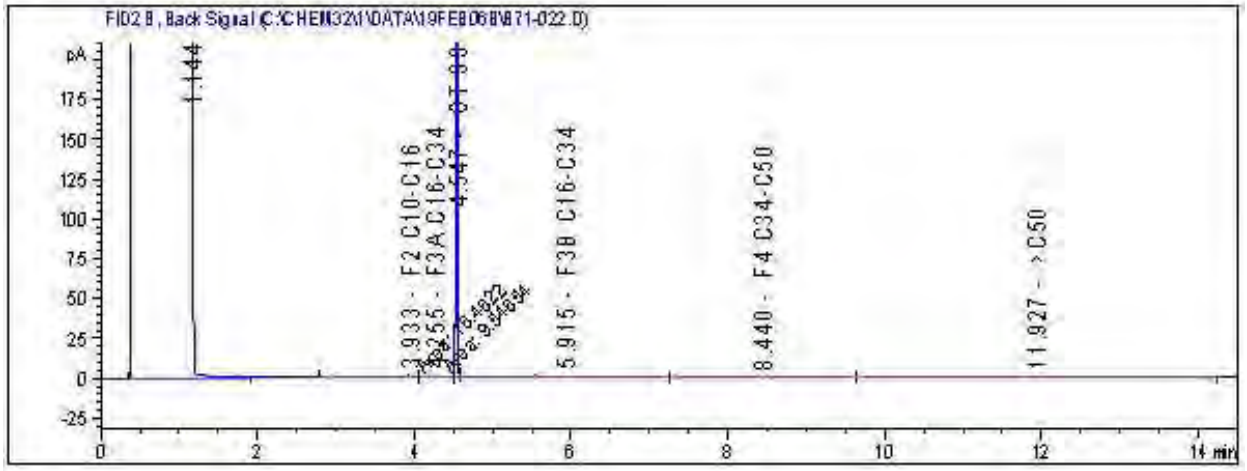
SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

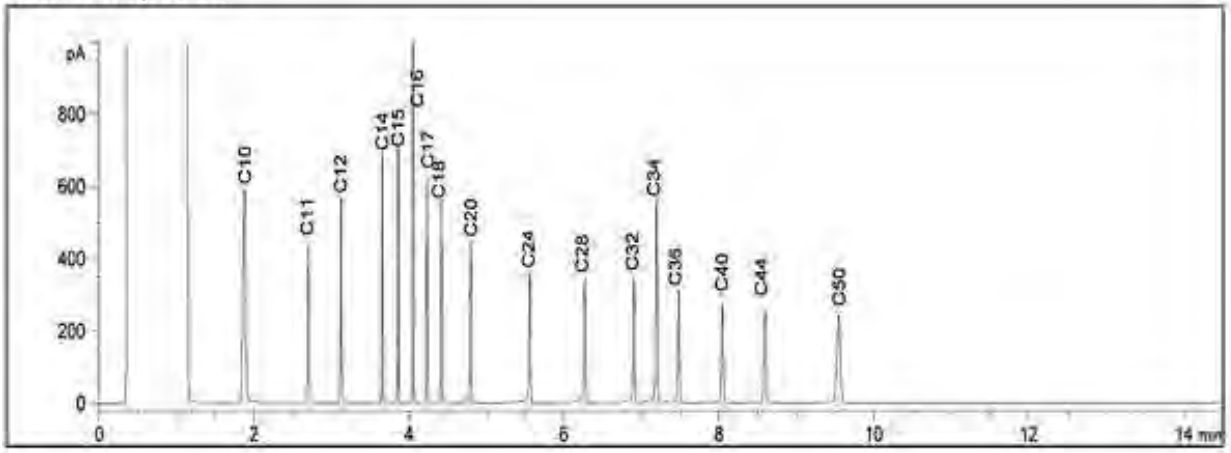
Maxxam Job #: B930203
Report Date: 2019/02/22
Maxxam Sample: IXF364

Pinchin Ltd
Client Project #: 233963.001
Project name: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Client ID: MW01-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

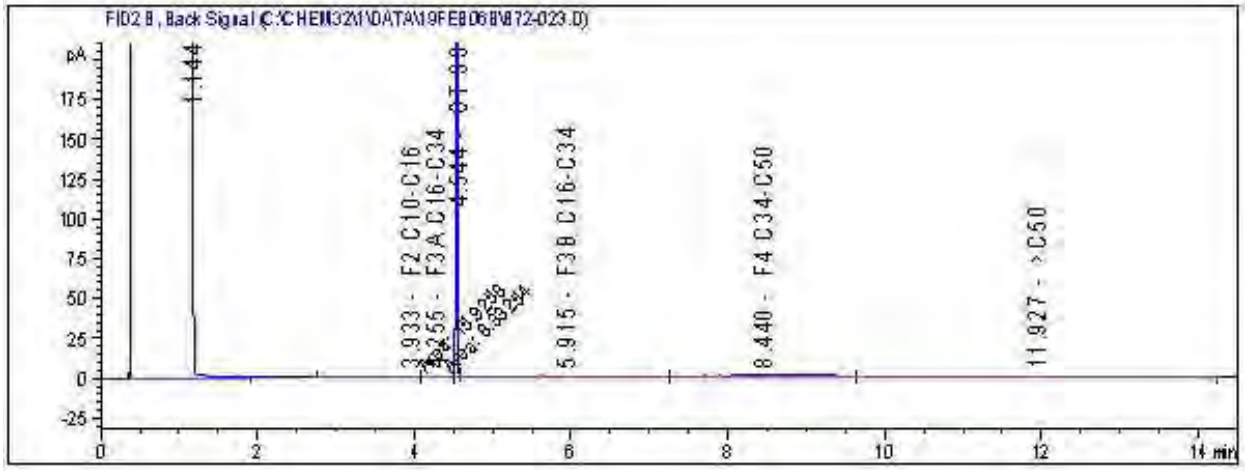
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

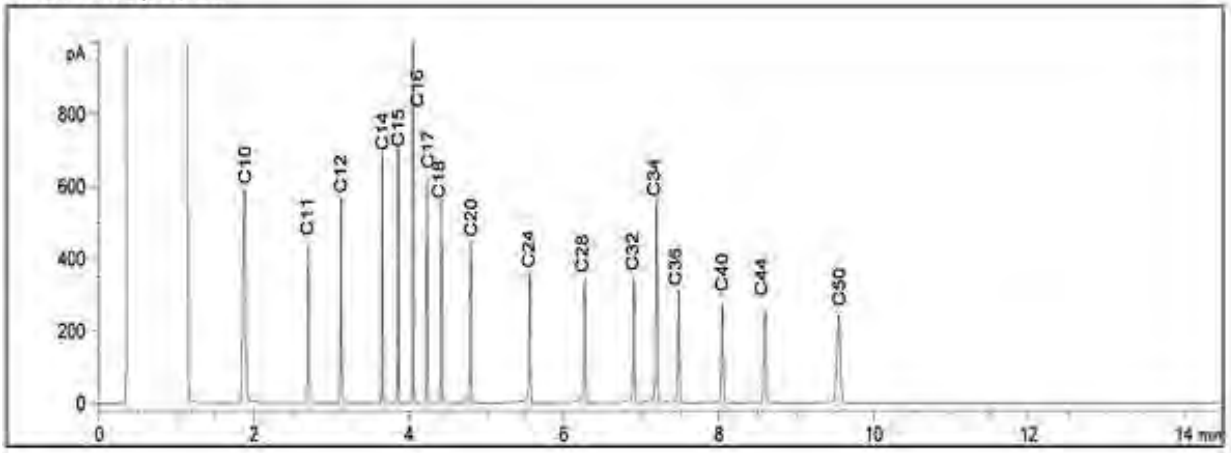
Maxxam Job #: B930203
Report Date: 2019/02/22
Maxxam Sample: IXF365

Pinchin Ltd
Client Project #: 233963.001
Project name: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Client ID: MW02-3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

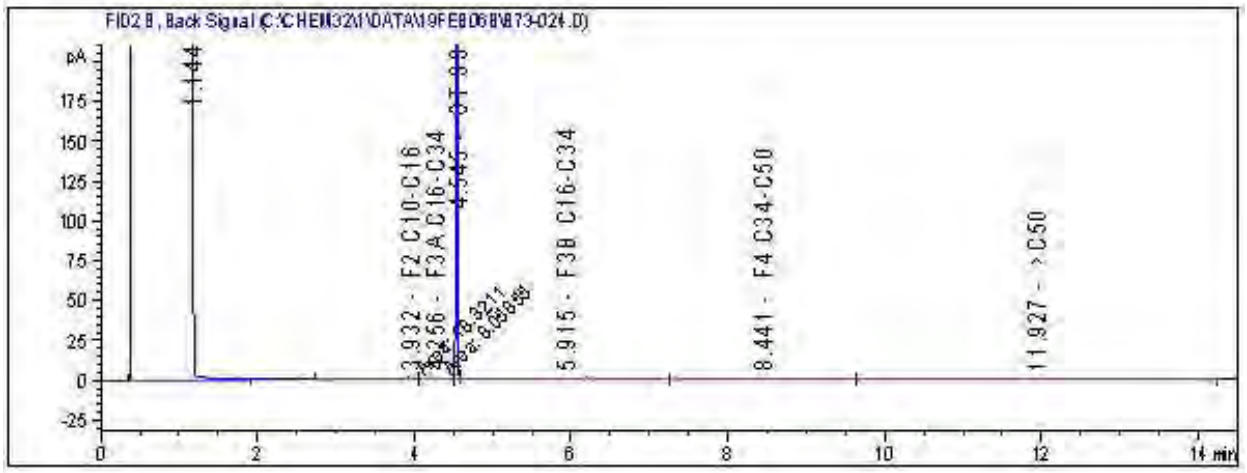
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

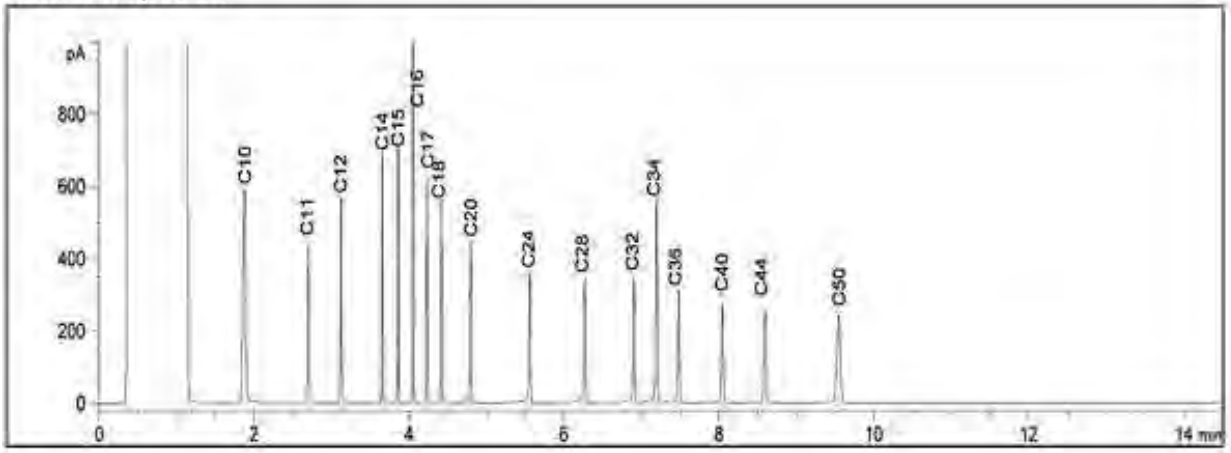
Maxxam Job #: B930203
Report Date: 2019/02/22
Maxxam Sample: IXF367

Pinchin Ltd
Client Project #: 233963.001
Project name: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Client ID: MW03-3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam
A Bureau Veritas Group Company

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 699091-06-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/11
Report #: R5590072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B930145
Received: 2019/02/04, 14:10

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	1	N/A	2019/02/08	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum	2	N/A	2019/02/07		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2019/02/07	2019/02/07	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	1	N/A	2019/02/06	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	1	2019/02/07	2019/02/08	CAM SOP-00318	EPA 8270D m
Volatile Organic Compounds and F1 PHCs	2	N/A	2019/02/06	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, 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) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam 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.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 699091-06-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/11
Report #: R5590072
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B930145
Received: 2019/02/04, 14:10

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Antonella Brasil, Senior Project Manager
Email: ABrasil@maxxam.ca
Phone# (905)817-5817
==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		IXE791		
Sampling Date		2019/02/04 08:45		
COC Number		699091-06-01		
	UNITS	**MW03**	**RDL**	**QC Batch**
Metals				
Dissolved Lead (Pb)	ug/L	1.1	0.50	5960591

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Maxxam ID		IXE790		
Sampling Date		2019/02/04 08:15		
COC Number		699091-06-01		
	UNITS	MW01	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/L	<0.071	0.071	5959224
Polyaromatic Hydrocarbons				
Acenaphthene	ug/L	<0.050	0.050	5965122
Acenaphthylene	ug/L	<0.050	0.050	5965122
Anthracene	ug/L	<0.050	0.050	5965122
Benzo(a)anthracene	ug/L	<0.050	0.050	5965122
Benzo(a)pyrene	ug/L	<0.010	0.010	5965122
Benzo(b/j)fluoranthene	ug/L	<0.050	0.050	5965122
Benzo(g,h,i)perylene	ug/L	<0.050	0.050	5965122
Benzo(k)fluoranthene	ug/L	<0.050	0.050	5965122
Chrysene	ug/L	<0.050	0.050	5965122
Dibenz(a,h)anthracene	ug/L	<0.050	0.050	5965122
Fluoranthene	ug/L	0.11	0.050	5965122
Fluorene	ug/L	<0.050	0.050	5965122
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	0.050	5965122
1-Methylnaphthalene	ug/L	<0.050	0.050	5965122
2-Methylnaphthalene	ug/L	<0.050	0.050	5965122
Naphthalene	ug/L	<0.050	0.050	5965122
Phenanthrene	ug/L	0.044	0.030	5965122
Pyrene	ug/L	<0.050	0.050	5965122
Surrogate Recovery (%)				
D10-Anthracene	%	117		5965122
D14-Terphenyl (FS)	%	103		5965122
D8-Acenaphthylene	%	111		5965122

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		IXE790	IXE791		
Sampling Date		2019/02/04 08:15	2019/02/04 08:45		
COC Number		699091-06-01	699091-06-01		
	UNITS	MW01	MW03	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	5958974
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	5961124
Benzene	ug/L	<0.20	<0.20	0.20	5961124
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	5961124
Bromoform	ug/L	<1.0	<1.0	1.0	5961124
Bromomethane	ug/L	<0.50	<0.50	0.50	5961124
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	5961124
Chlorobenzene	ug/L	<0.20	<0.20	0.20	5961124
Chloroform	ug/L	<0.20	<0.20	0.20	5961124
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	5961124
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	5961124
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	5961124
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	5961124
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	5961124
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	5961124
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	5961124
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	5961124
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	5961124
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	5961124
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	5961124
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	5961124
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	5961124
Ethylbenzene	ug/L	<0.20	<0.20	0.20	5961124
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	5961124
Hexane	ug/L	<1.0	<1.0	1.0	5961124
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	5961124
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	5961124
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	5961124
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	5961124
Styrene	ug/L	<0.50	<0.50	0.50	5961124
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	5961124
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	5961124

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		IXE790	IXE791		
Sampling Date		2019/02/04 08:15	2019/02/04 08:45		
COC Number		699091-06-01	699091-06-01		
	UNITS	MW01	MW03	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	0.20	5961124
Toluene	ug/L	<0.20	<0.20	0.20	5961124
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	5961124
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	5961124
Trichloroethylene	ug/L	<0.20	<0.20	0.20	5961124
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	5961124
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	5961124
p+m-Xylene	ug/L	<0.20	<0.20	0.20	5961124
o-Xylene	ug/L	<0.20	<0.20	0.20	5961124
Total Xylenes	ug/L	<0.20	<0.20	0.20	5961124
F1 (C6-C10)	ug/L	<25	<25	25	5961124
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	5961124
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	91	93		5961124
D4-1,2-Dichloroethane	%	106	109		5961124
D8-Toluene	%	90	91		5961124

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		IXE790	IXE791		
Sampling Date		2019/02/04 08:15	2019/02/04 08:45		
COC Number		699091-06-01	699091-06-01		
	UNITS	MW01	MW03	RDL	QC Batch
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	5965118
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	5965118
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	5965118
Reached Baseline at C50	ug/L	Yes	Yes		5965118
Surrogate Recovery (%)					
o-Terphenyl	%	115	110		5965118

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

GENERAL COMMENTS

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

Package 1	2.7°C

All 100mL amber glass bottles for F2-F4 and PAH analyses contained visible sediment, which was included in the extraction.
All 40mL vials for F1BTEX and VOC analyses contained visible sediment.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
5960591	N_R	Matrix Spike	Dissolved Lead (Pb)	2019/02/06		99	%	80 - 120
5960591	N_R	Spiked Blank	Dissolved Lead (Pb)	2019/02/06		100	%	80 - 120
5960591	N_R	Method Blank	Dissolved Lead (Pb)	2019/02/06	<0.50		ug/L	
5961124	DR1	Matrix Spike	4-Bromofluorobenzene	2019/02/06		104	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/06		102	%	70 - 130
			D8-Toluene	2019/02/06		107	%	70 - 130
			Acetone (2-Propanone)	2019/02/06		109	%	60 - 140
			Benzene	2019/02/06		93	%	70 - 130
			Bromodichloromethane	2019/02/06		97	%	70 - 130
			Bromoform	2019/02/06		97	%	70 - 130
			Bromomethane	2019/02/06		87	%	60 - 140
			Carbon Tetrachloride	2019/02/06		95	%	70 - 130
			Chlorobenzene	2019/02/06		98	%	70 - 130
			Chloroform	2019/02/06		96	%	70 - 130
			Dibromochloromethane	2019/02/06		98	%	70 - 130
			1,2-Dichlorobenzene	2019/02/06		96	%	70 - 130
			1,3-Dichlorobenzene	2019/02/06		97	%	70 - 130
			1,4-Dichlorobenzene	2019/02/06		100	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2019/02/06		65	%	60 - 140
			1,1-Dichloroethane	2019/02/06		96	%	70 - 130
			1,2-Dichloroethane	2019/02/06		98	%	70 - 130
			1,1-Dichloroethylene	2019/02/06		92	%	70 - 130
			cis-1,2-Dichloroethylene	2019/02/06		95	%	70 - 130
			trans-1,2-Dichloroethylene	2019/02/06		95	%	70 - 130
			1,2-Dichloropropane	2019/02/06		96	%	70 - 130
			cis-1,3-Dichloropropene	2019/02/06		86	%	70 - 130
			trans-1,3-Dichloropropene	2019/02/06		88	%	70 - 130
			Ethylbenzene	2019/02/06		97	%	70 - 130
			Ethylene Dibromide	2019/02/06		100	%	70 - 130
			Hexane	2019/02/06		94	%	70 - 130
			Methylene Chloride(Dichloromethane)	2019/02/06		91	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/02/06		115	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/06		87	%	70 - 130
			Methyl t-butyl ether (MTBE)	2019/02/06		93	%	70 - 130
			Styrene	2019/02/06		102	%	70 - 130
			1,1,1,2-Tetrachloroethane	2019/02/06		98	%	70 - 130
			1,1,2,2-Tetrachloroethane	2019/02/06		98	%	70 - 130
			Tetrachloroethylene	2019/02/06		97	%	70 - 130
			Toluene	2019/02/06		99	%	70 - 130
			1,1,1-Trichloroethane	2019/02/06		93	%	70 - 130
			1,1,2-Trichloroethane	2019/02/06		99	%	70 - 130
			Trichloroethylene	2019/02/06		97	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2019/02/06		91	%	70 - 130
			Vinyl Chloride	2019/02/06		80	%	70 - 130
			p+m-Xylene	2019/02/06		99	%	70 - 130
			o-Xylene	2019/02/06		99	%	70 - 130
			F1 (C6-C10)	2019/02/06		103	%	60 - 140
5961124	DR1	Spiked Blank	4-Bromofluorobenzene	2019/02/06		102	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/06		98	%	70 - 130
			D8-Toluene	2019/02/06		107	%	70 - 130
			Acetone (2-Propanone)	2019/02/06		86	%	60 - 140
			Benzene	2019/02/06		93	%	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Bromodichloromethane	2019/02/06		96	%	70 - 130
			Bromoform	2019/02/06		93	%	70 - 130
			Bromomethane	2019/02/06		93	%	60 - 140
			Carbon Tetrachloride	2019/02/06		97	%	70 - 130
			Chlorobenzene	2019/02/06		99	%	70 - 130
			Chloroform	2019/02/06		96	%	70 - 130
			Dibromochloromethane	2019/02/06		96	%	70 - 130
			1,2-Dichlorobenzene	2019/02/06		97	%	70 - 130
			1,3-Dichlorobenzene	2019/02/06		101	%	70 - 130
			1,4-Dichlorobenzene	2019/02/06		103	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2019/02/06		75	%	60 - 140
			1,1-Dichloroethane	2019/02/06		95	%	70 - 130
			1,2-Dichloroethane	2019/02/06		96	%	70 - 130
			1,1-Dichloroethylene	2019/02/06		94	%	70 - 130
			cis-1,2-Dichloroethylene	2019/02/06		94	%	70 - 130
			trans-1,2-Dichloroethylene	2019/02/06		93	%	70 - 130
			1,2-Dichloropropane	2019/02/06		96	%	70 - 130
			cis-1,3-Dichloropropene	2019/02/06		97	%	70 - 130
			trans-1,3-Dichloropropene	2019/02/06		100	%	70 - 130
			Ethylbenzene	2019/02/06		100	%	70 - 130
			Ethylene Dibromide	2019/02/06		96	%	70 - 130
			Hexane	2019/02/06		96	%	70 - 130
			Methylene Chloride(Dichloromethane)	2019/02/06		87	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/02/06		95	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/06		81	%	70 - 130
			Methyl t-butyl ether (MTBE)	2019/02/06		92	%	70 - 130
			Styrene	2019/02/06		105	%	70 - 130
			1,1,1,2-Tetrachloroethane	2019/02/06		98	%	70 - 130
			1,1,2,2-Tetrachloroethane	2019/02/06		93	%	70 - 130
			Tetrachloroethylene	2019/02/06		98	%	70 - 130
			Toluene	2019/02/06		99	%	70 - 130
			1,1,1-Trichloroethane	2019/02/06		96	%	70 - 130
			1,1,2-Trichloroethane	2019/02/06		95	%	70 - 130
			Trichloroethylene	2019/02/06		98	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2019/02/06		93	%	70 - 130
			Vinyl Chloride	2019/02/06		95	%	70 - 130
			p+m-Xylene	2019/02/06		102	%	70 - 130
			o-Xylene	2019/02/06		101	%	70 - 130
			F1 (C6-C10)	2019/02/06		98	%	60 - 140
5961124	DR1	Method Blank	4-Bromofluorobenzene	2019/02/06		93	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/06		105	%	70 - 130
			D8-Toluene	2019/02/06		92	%	70 - 130
			Acetone (2-Propanone)	2019/02/06	<10		ug/L	
			Benzene	2019/02/06	<0.20		ug/L	
			Bromodichloromethane	2019/02/06	<0.50		ug/L	
			Bromoform	2019/02/06	<1.0		ug/L	
			Bromomethane	2019/02/06	<0.50		ug/L	
			Carbon Tetrachloride	2019/02/06	<0.20		ug/L	
			Chlorobenzene	2019/02/06	<0.20		ug/L	
			Chloroform	2019/02/06	<0.20		ug/L	
			Dibromochloromethane	2019/02/06	<0.50		ug/L	
			1,2-Dichlorobenzene	2019/02/06	<0.50		ug/L	

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,3-Dichlorobenzene	2019/02/06	<0.50		ug/L	
			1,4-Dichlorobenzene	2019/02/06	<0.50		ug/L	
			Dichlorodifluoromethane (FREON 12)	2019/02/06	<1.0		ug/L	
			1,1-Dichloroethane	2019/02/06	<0.20		ug/L	
			1,2-Dichloroethane	2019/02/06	<0.50		ug/L	
			1,1-Dichloroethylene	2019/02/06	<0.20		ug/L	
			cis-1,2-Dichloroethylene	2019/02/06	<0.50		ug/L	
			trans-1,2-Dichloroethylene	2019/02/06	<0.50		ug/L	
			1,2-Dichloropropane	2019/02/06	<0.20		ug/L	
			cis-1,3-Dichloropropene	2019/02/06	<0.30		ug/L	
			trans-1,3-Dichloropropene	2019/02/06	<0.40		ug/L	
			Ethylbenzene	2019/02/06	<0.20		ug/L	
			Ethylene Dibromide	2019/02/06	<0.20		ug/L	
			Hexane	2019/02/06	<1.0		ug/L	
			Methylene Chloride(Dichloromethane)	2019/02/06	<2.0		ug/L	
			Methyl Ethyl Ketone (2-Butanone)	2019/02/06	<10		ug/L	
			Methyl Isobutyl Ketone	2019/02/06	<5.0		ug/L	
			Methyl t-butyl ether (MTBE)	2019/02/06	<0.50		ug/L	
			Styrene	2019/02/06	<0.50		ug/L	
			1,1,1,2-Tetrachloroethane	2019/02/06	<0.50		ug/L	
			1,1,2,2-Tetrachloroethane	2019/02/06	<0.50		ug/L	
			Tetrachloroethylene	2019/02/06	<0.20		ug/L	
			Toluene	2019/02/06	<0.20		ug/L	
			1,1,1-Trichloroethane	2019/02/06	<0.20		ug/L	
			1,1,2-Trichloroethane	2019/02/06	<0.50		ug/L	
			Trichloroethylene	2019/02/06	<0.20		ug/L	
			Trichlorofluoromethane (FREON 11)	2019/02/06	<0.50		ug/L	
			Vinyl Chloride	2019/02/06	<0.20		ug/L	
			p+m-Xylene	2019/02/06	<0.20		ug/L	
			o-Xylene	2019/02/06	<0.20		ug/L	
			Total Xylenes	2019/02/06	<0.20		ug/L	
			F1 (C6-C10)	2019/02/06	<25		ug/L	
			F1 (C6-C10) - BTEX	2019/02/06	<25		ug/L	
5961124	DR1	RPD	Acetone (2-Propanone)	2019/02/06	NC		%	30
			Benzene	2019/02/06	NC		%	30
			Bromodichloromethane	2019/02/06	NC		%	30
			Bromoform	2019/02/06	NC		%	30
			Bromomethane	2019/02/06	NC		%	30
			Carbon Tetrachloride	2019/02/06	NC		%	30
			Chlorobenzene	2019/02/06	NC		%	30
			Chloroform	2019/02/06	NC		%	30
			Dibromochloromethane	2019/02/06	NC		%	30
			1,2-Dichlorobenzene	2019/02/06	NC		%	30
			1,3-Dichlorobenzene	2019/02/06	NC		%	30
			1,4-Dichlorobenzene	2019/02/06	NC		%	30
			Dichlorodifluoromethane (FREON 12)	2019/02/06	NC		%	30
			1,1-Dichloroethane	2019/02/06	NC		%	30
			1,2-Dichloroethane	2019/02/06	NC		%	30
			1,1-Dichloroethylene	2019/02/06	NC		%	30
			cis-1,2-Dichloroethylene	2019/02/06	NC		%	30
			trans-1,2-Dichloroethylene	2019/02/06	NC		%	30
			1,2-Dichloropropane	2019/02/06	NC		%	30

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			cis-1,3-Dichloropropene	2019/02/06	NC		%	30
			trans-1,3-Dichloropropene	2019/02/06	NC		%	30
			Ethylbenzene	2019/02/06	NC		%	30
			Ethylene Dibromide	2019/02/06	NC		%	30
			Hexane	2019/02/06	NC		%	30
			Methylene Chloride(Dichloromethane)	2019/02/06	NC		%	30
			Methyl Ethyl Ketone (2-Butanone)	2019/02/06	NC		%	30
			Methyl Isobutyl Ketone	2019/02/06	NC		%	30
			Methyl t-butyl ether (MTBE)	2019/02/06	NC		%	30
			Styrene	2019/02/06	NC		%	30
			1,1,1,2-Tetrachloroethane	2019/02/06	NC		%	30
			1,1,2,2-Tetrachloroethane	2019/02/06	NC		%	30
			Tetrachloroethylene	2019/02/06	NC		%	30
			Toluene	2019/02/06	NC		%	30
			1,1,1-Trichloroethane	2019/02/06	NC		%	30
			1,1,2-Trichloroethane	2019/02/06	NC		%	30
			Trichloroethylene	2019/02/06	NC		%	30
			Trichlorofluoromethane (FREON 11)	2019/02/06	NC		%	30
			Vinyl Chloride	2019/02/06	NC		%	30
			p+m-Xylene	2019/02/06	NC		%	30
			o-Xylene	2019/02/06	NC		%	30
			Total Xylenes	2019/02/06	NC		%	30
			F1 (C6-C10)	2019/02/06	NC		%	30
			F1 (C6-C10) - BTEX	2019/02/06	NC		%	30
5965118	GUL	Matrix Spike	o-Terphenyl	2019/02/07		114	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/07		111	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/02/07		104	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2019/02/07		111	%	50 - 130
5965118	GUL	Spiked Blank	o-Terphenyl	2019/02/07		114	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/07		96	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2019/02/07		106	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2019/02/07		110	%	60 - 130
5965118	GUL	Method Blank	o-Terphenyl	2019/02/07		110	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/07	<100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2019/02/07	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2019/02/07	<200		ug/L	
5965118	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2019/02/07	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2019/02/07	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2019/02/07	NC		%	30
5965122	RAJ	Matrix Spike	D10-Anthracene	2019/02/08		110	%	50 - 130
			D14-Terphenyl (FS)	2019/02/08		104	%	50 - 130
			D8-Acenaphthylene	2019/02/08		104	%	50 - 130
			Acenaphthene	2019/02/08		95	%	50 - 130
			Acenaphthylene	2019/02/08		96	%	50 - 130
			Anthracene	2019/02/08		94	%	50 - 130
			Benzo(a)anthracene	2019/02/08		101	%	50 - 130
			Benzo(a)pyrene	2019/02/08		96	%	50 - 130
			Benzo(b/j)fluoranthene	2019/02/08		97	%	50 - 130
			Benzo(g,h,i)perylene	2019/02/08		93	%	50 - 130
			Benzo(k)fluoranthene	2019/02/08		93	%	50 - 130
			Chrysene	2019/02/08		97	%	50 - 130
			Dibenz(a,h)anthracene	2019/02/08		90	%	50 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Fluoranthene	2019/02/08		102	%	50 - 130
			Fluorene	2019/02/08		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/02/08		97	%	50 - 130
			1-Methylnaphthalene	2019/02/08		110	%	50 - 130
			2-Methylnaphthalene	2019/02/08		99	%	50 - 130
			Naphthalene	2019/02/08		92	%	50 - 130
			Phenanthrene	2019/02/08		98	%	50 - 130
			Pyrene	2019/02/08		103	%	50 - 130
5965122	RAJ	Spiked Blank	D10-Anthracene	2019/02/07		113	%	50 - 130
			D14-Terphenyl (FS)	2019/02/07		112	%	50 - 130
			D8-Acenaphthylene	2019/02/07		105	%	50 - 130
			Acenaphthene	2019/02/07		98	%	50 - 130
			Acenaphthylene	2019/02/07		99	%	50 - 130
			Anthracene	2019/02/07		97	%	50 - 130
			Benzo(a)anthracene	2019/02/07		105	%	50 - 130
			Benzo(a)pyrene	2019/02/07		101	%	50 - 130
			Benzo(b/j)fluoranthene	2019/02/07		101	%	50 - 130
			Benzo(g,h,i)perylene	2019/02/07		97	%	50 - 130
			Benzo(k)fluoranthene	2019/02/07		96	%	50 - 130
			Chrysene	2019/02/07		101	%	50 - 130
			Dibenz(a,h)anthracene	2019/02/07		93	%	50 - 130
			Fluoranthene	2019/02/07		105	%	50 - 130
			Fluorene	2019/02/07		99	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2019/02/07		102	%	50 - 130
			1-Methylnaphthalene	2019/02/07		111	%	50 - 130
			2-Methylnaphthalene	2019/02/07		101	%	50 - 130
			Naphthalene	2019/02/07		93	%	50 - 130
			Phenanthrene	2019/02/07		100	%	50 - 130
			Pyrene	2019/02/07		106	%	50 - 130
5965122	RAJ	Method Blank	D10-Anthracene	2019/02/07		114	%	50 - 130
			D14-Terphenyl (FS)	2019/02/07		108	%	50 - 130
			D8-Acenaphthylene	2019/02/07		103	%	50 - 130
			Acenaphthene	2019/02/07	<0.050		ug/L	
			Acenaphthylene	2019/02/07	<0.050		ug/L	
			Anthracene	2019/02/07	<0.050		ug/L	
			Benzo(a)anthracene	2019/02/07	<0.050		ug/L	
			Benzo(a)pyrene	2019/02/07	<0.010		ug/L	
			Benzo(b/j)fluoranthene	2019/02/07	<0.050		ug/L	
			Benzo(g,h,i)perylene	2019/02/07	<0.050		ug/L	
			Benzo(k)fluoranthene	2019/02/07	<0.050		ug/L	
			Chrysene	2019/02/07	<0.050		ug/L	
			Dibenz(a,h)anthracene	2019/02/07	<0.050		ug/L	
			Fluoranthene	2019/02/07	<0.050		ug/L	
			Fluorene	2019/02/07	<0.050		ug/L	
			Indeno(1,2,3-cd)pyrene	2019/02/07	<0.050		ug/L	
			1-Methylnaphthalene	2019/02/07	<0.050		ug/L	
			2-Methylnaphthalene	2019/02/07	<0.050		ug/L	
			Naphthalene	2019/02/07	<0.050		ug/L	
			Phenanthrene	2019/02/07	<0.030		ug/L	
			Pyrene	2019/02/07	<0.050		ug/L	
5965122	RAJ	RPD	Acenaphthene	2019/02/08	NC		%	30
			Acenaphthylene	2019/02/08	NC		%	30

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Anthracene	2019/02/08	NC		%	30
			Benzo(a)anthracene	2019/02/08	NC		%	30
			Benzo(a)pyrene	2019/02/08	NC		%	30
			Benzo(b/j)fluoranthene	2019/02/08	NC		%	30
			Benzo(g,h,i)perylene	2019/02/08	NC		%	30
			Benzo(k)fluoranthene	2019/02/08	NC		%	30
			Chrysene	2019/02/08	NC		%	30
			Dibenz(a,h)anthracene	2019/02/08	NC		%	30
			Fluoranthene	2019/02/08	NC		%	30
			Fluorene	2019/02/08	NC		%	30
			Indeno(1,2,3-cd)pyrene	2019/02/08	NC		%	30
			1-Methylnaphthalene	2019/02/08	NC		%	30
			2-Methylnaphthalene	2019/02/08	NC		%	30
			Naphthalene	2019/02/08	NC		%	30
			Phenanthrene	2019/02/08	NC		%	30
			Pyrene	2019/02/08	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).

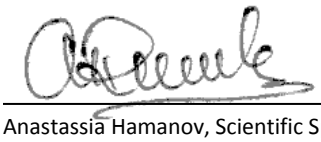
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930145
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Analytics International Corporation o/a Maxxam Analytics
8740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#47523 Pinchin Ltd	Company Name:	Pinchin	Quotation #:	A70927	Maxxam Job #:	Bottle Order #: 699091
Attention:	Accounts Payable	Attention:		P.O. #:			
Address:	Unit 6 875 Main St W Hamilton ON L8S 4R9	Address:	Erik Enders, Amber Haney	Project:	233963.001	COC #: C#699091-06-01	Project Manager: Antonella Brasil
Tel:	(905) 577-6206 Fax: (905) 577-6207	Tel:		Project Name:	Phase II ESA		
Email:	ap@pinchin.com	Email:	eenders@pinchin.com, aharney@pinchin.com	Site #:	2032 Lakeshore Rd, Burlington		
				Sampled By:	AH		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☐ Coarse ☒ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___ ↑MD	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Field Filtered (please circle): Metals / Hg / Cr VI

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	PHCs (F1-F4)	PAHs	Lead	VOCs	# of Bottles	Comments
1	MW01	MW01	19/02/04	8:15am	GW	X	X		X	5	
2	MW03	MW03	19/02/04	8:45am	GW	X		X	X	6	
3											
4											
5											
6											
7											
8											
9											
10											

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

04-Feb-19 14:10
Antonella Brasil
B930145
THP ENV-1318

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Amber Haney	19/02/04	9:30		19/02/04	14:10	

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei: 4/3/1	Custody Seal Present	Yes ✓	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

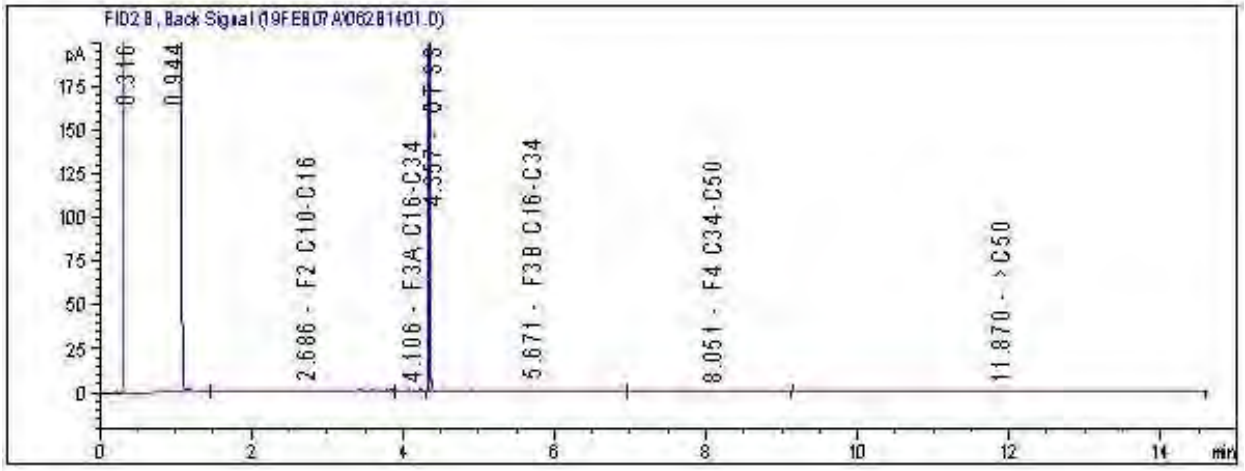
White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

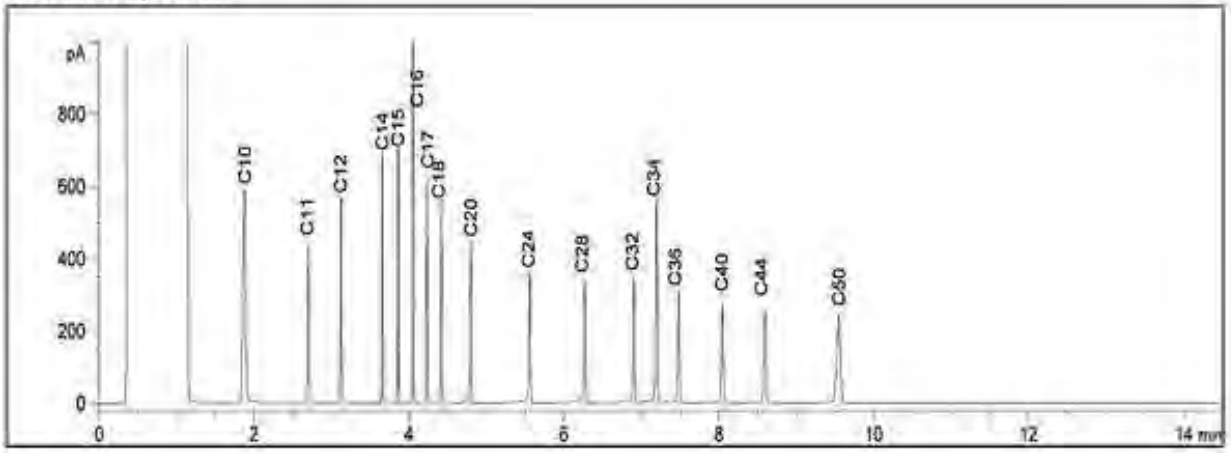
Maxxam Job #: B930145
Report Date: 2019/02/11
Maxxam Sample: IXE790

Pinchin Ltd
Client Project #: 233963.001
Project name: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Client ID: MW01

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

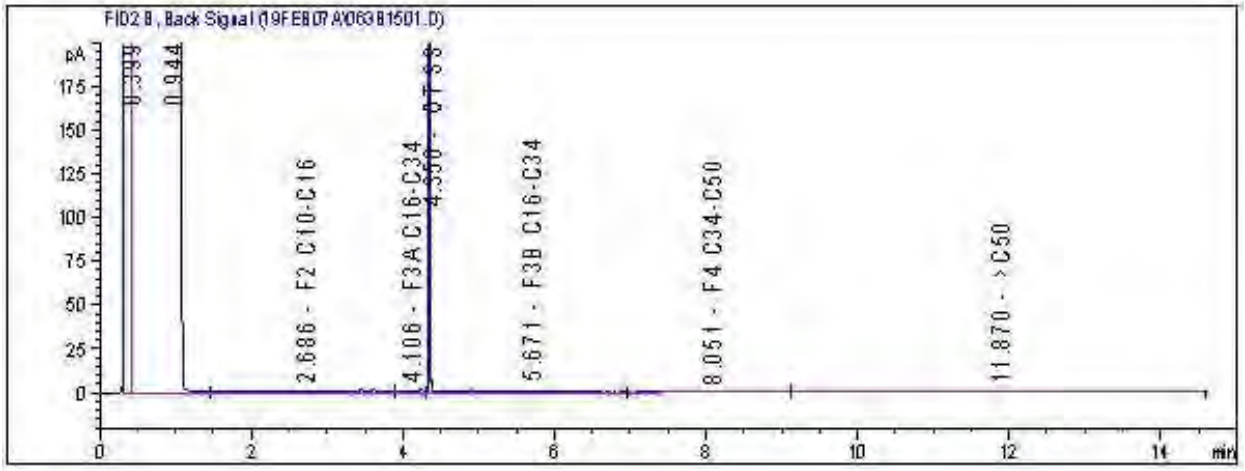
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

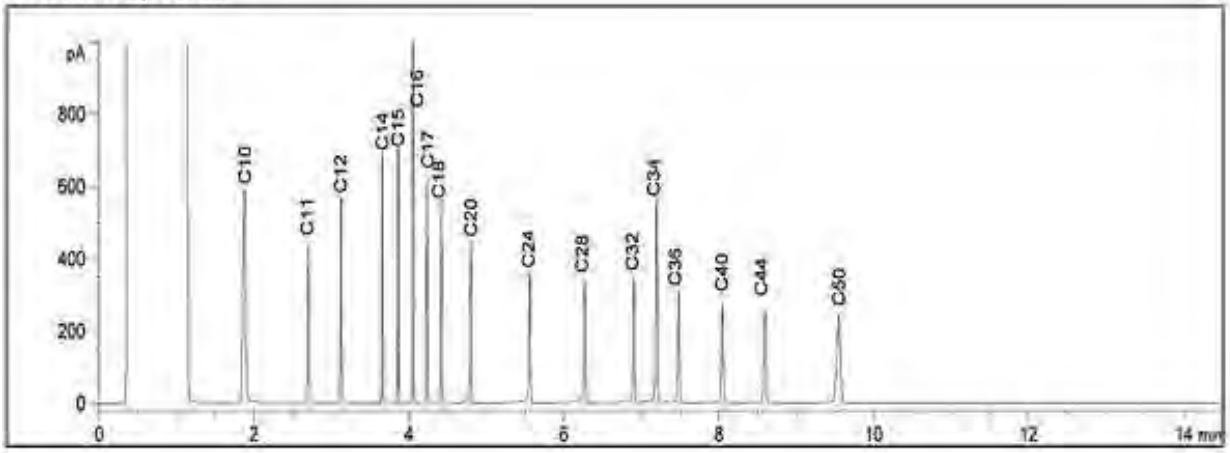
Maxxam Job #: B930145
Report Date: 2019/02/11
Maxxam Sample: IXE791

Pinchin Ltd
Client Project #: 233963.001
Project name: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Client ID: MW03

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 700131-01-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/14
Report #: R5595191
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B935996
Received: 2019/02/08, 16:25

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
1,3-Dichloropropene Sum	1	N/A	2019/02/14		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1)	1	2019/02/13	2019/02/14	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS	1	N/A	2019/02/12	CAM SOP-00447	EPA 6020B m
Volatile Organic Compounds and F1 PHCs	1	N/A	2019/02/14	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, 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) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam 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.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 700131-01-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/14
Report #: R5595191
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B935996
Received: 2019/02/08, 16:25

Encryption Key

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

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Maxxam ID		IYK212		
Sampling Date		2019/02/07 08:00		
COC Number		700131-01-01		
	UNITS	MW02	RDL	QC Batch
Metals				
Dissolved Lead (Pb)	ug/L	<0.50	0.50	5969108

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		IYK212		
Sampling Date		2019/02/07 08:00		
COC Number		700131-01-01		
	UNITS	MW02	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	5967325
Volatile Organics				
Acetone (2-Propanone)	ug/L	17	10	5969101
Benzene	ug/L	2.2	0.20	5969101
Bromodichloromethane	ug/L	<0.50	0.50	5969101
Bromoform	ug/L	<1.0	1.0	5969101
Bromomethane	ug/L	<0.50	0.50	5969101
Carbon Tetrachloride	ug/L	<0.20	0.20	5969101
Chlorobenzene	ug/L	<0.20	0.20	5969101
Chloroform	ug/L	<0.20	0.20	5969101
Dibromochloromethane	ug/L	<0.50	0.50	5969101
1,2-Dichlorobenzene	ug/L	<0.50	0.50	5969101
1,3-Dichlorobenzene	ug/L	<0.50	0.50	5969101
1,4-Dichlorobenzene	ug/L	<0.50	0.50	5969101
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	5969101
1,1-Dichloroethane	ug/L	<0.20	0.20	5969101
1,2-Dichloroethane	ug/L	<0.50	0.50	5969101
1,1-Dichloroethylene	ug/L	<0.20	0.20	5969101
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	5969101
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	5969101
1,2-Dichloropropane	ug/L	<0.20	0.20	5969101
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	5969101
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	5969101
Ethylbenzene	ug/L	0.64	0.20	5969101
Ethylene Dibromide	ug/L	<0.20	0.20	5969101
Hexane	ug/L	<1.0	1.0	5969101
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	5969101
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	5969101
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	5969101
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	5969101
Styrene	ug/L	<0.50	0.50	5969101
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	5969101
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	5969101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (WATER)

Maxxam ID		IYK212		
Sampling Date		2019/02/07 08:00		
COC Number		700131-01-01		
	UNITS	**MW02**	**RDL**	**QC Batch**
Tetrachloroethylene	ug/L	<0.20	0.20	5969101
Toluene	ug/L	<0.20	0.20	5969101
1,1,1-Trichloroethane	ug/L	<0.20	0.20	5969101
1,1,2-Trichloroethane	ug/L	<0.50	0.50	5969101
Trichloroethylene	ug/L	<0.20	0.20	5969101
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	5969101
Vinyl Chloride	ug/L	<0.20	0.20	5969101
p+m-Xylene	ug/L	0.31	0.20	5969101
o-Xylene	ug/L	<0.20	0.20	5969101
Total Xylenes	ug/L	0.31	0.20	5969101
F1 (C6-C10)	ug/L	<25	25	5969101
F1 (C6-C10) - BTEX	ug/L	<25	25	5969101
Surrogate Recovery (%)				
4-Bromofluorobenzene	%	91		5969101
D4-1,2-Dichloroethane	%	112		5969101
D8-Toluene	%	91		5969101

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		IYK212		
Sampling Date		2019/02/07 08:00		
COC Number		700131-01-01		
	UNITS	MW02	RDL	QC Batch
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	5973841
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	5973841
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	5973841
Reached Baseline at C50	ug/L	Yes		5973841
Surrogate Recovery (%)				
o-Terphenyl	%	93		5973841

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

GENERAL COMMENTS

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

Package 1	1.3°C

All 100mL amber glass bottles for F2-F4 analysis contained visible sediment, which was included in the extraction.
All 40mL vials for F1BTEX and VOC analyses contained visible sediment.

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
5969101	XJI	Matrix Spike	4-Bromofluorobenzene	2019/02/13		99	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/13		106	%	70 - 130
			D8-Toluene	2019/02/13		101	%	70 - 130
			Acetone (2-Propanone)	2019/02/13		106	%	60 - 140
			Benzene	2019/02/13		100	%	70 - 130
			Bromodichloromethane	2019/02/13		101	%	70 - 130
			Bromoform	2019/02/13		99	%	70 - 130
			Bromomethane	2019/02/13		104	%	60 - 140
			Carbon Tetrachloride	2019/02/13		100	%	70 - 130
			Chlorobenzene	2019/02/13		94	%	70 - 130
			Chloroform	2019/02/13		101	%	70 - 130
			Dibromochloromethane	2019/02/13		101	%	70 - 130
			1,2-Dichlorobenzene	2019/02/13		93	%	70 - 130
			1,3-Dichlorobenzene	2019/02/13		92	%	70 - 130
			1,4-Dichlorobenzene	2019/02/13		92	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2019/02/13		107	%	60 - 140
			1,1-Dichloroethane	2019/02/13		101	%	70 - 130
			1,2-Dichloroethane	2019/02/13		104	%	70 - 130
			1,1-Dichloroethylene	2019/02/13		99	%	70 - 130
			cis-1,2-Dichloroethylene	2019/02/13		100	%	70 - 130
			trans-1,2-Dichloroethylene	2019/02/13		101	%	70 - 130
			1,2-Dichloropropane	2019/02/13		99	%	70 - 130
			cis-1,3-Dichloropropene	2019/02/13		86	%	70 - 130
			trans-1,3-Dichloropropene	2019/02/13		87	%	70 - 130
			Ethylbenzene	2019/02/13		89	%	70 - 130
			Ethylene Dibromide	2019/02/13		100	%	70 - 130
			Hexane	2019/02/13		96	%	70 - 130
			Methylene Chloride(Dichloromethane)	2019/02/13		96	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/02/13		106	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/13		104	%	70 - 130
			Methyl t-butyl ether (MTBE)	2019/02/13		96	%	70 - 130
			Styrene	2019/02/13		93	%	70 - 130
			1,1,1,2-Tetrachloroethane	2019/02/13		100	%	70 - 130
			1,1,2,2-Tetrachloroethane	2019/02/13		101	%	70 - 130
			Tetrachloroethylene	2019/02/13		96	%	70 - 130
			Toluene	2019/02/13		90	%	70 - 130
			1,1,1-Trichloroethane	2019/02/13		100	%	70 - 130
			1,1,2-Trichloroethane	2019/02/13		101	%	70 - 130
			Trichloroethylene	2019/02/13		97	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2019/02/13		104	%	70 - 130
			Vinyl Chloride	2019/02/13		106	%	70 - 130
			p+m-Xylene	2019/02/13		84	%	70 - 130
			o-Xylene	2019/02/13		90	%	70 - 130
			F1 (C6-C10)	2019/02/13		93	%	60 - 140
5969101	XJI	Spiked Blank	4-Bromofluorobenzene	2019/02/13		102	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/13		108	%	70 - 130
			D8-Toluene	2019/02/13		103	%	70 - 130
			Acetone (2-Propanone)	2019/02/13		108	%	60 - 140
			Benzene	2019/02/13		95	%	70 - 130
			Bromodichloromethane	2019/02/13		96	%	70 - 130
			Bromoform	2019/02/13		99	%	70 - 130
			Bromomethane	2019/02/13		99	%	60 - 140
			Carbon Tetrachloride	2019/02/13		94	%	70 - 130

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Chlorobenzene	2019/02/13		91	%	70 - 130
			Chloroform	2019/02/13		96	%	70 - 130
			Dibromochloromethane	2019/02/13		100	%	70 - 130
			1,2-Dichlorobenzene	2019/02/13		88	%	70 - 130
			1,3-Dichlorobenzene	2019/02/13		87	%	70 - 130
			1,4-Dichlorobenzene	2019/02/13		87	%	70 - 130
			Dichlorodifluoromethane (FREON 12)	2019/02/13		107	%	60 - 140
			1,1-Dichloroethane	2019/02/13		96	%	70 - 130
			1,2-Dichloroethane	2019/02/13		100	%	70 - 130
			1,1-Dichloroethylene	2019/02/13		93	%	70 - 130
			cis-1,2-Dichloroethylene	2019/02/13		95	%	70 - 130
			trans-1,2-Dichloroethylene	2019/02/13		94	%	70 - 130
			1,2-Dichloropropane	2019/02/13		94	%	70 - 130
			cis-1,3-Dichloropropene	2019/02/13		81	%	70 - 130
			trans-1,3-Dichloropropene	2019/02/13		86	%	70 - 130
			Ethylbenzene	2019/02/13		86	%	70 - 130
			Ethylene Dibromide	2019/02/13		100	%	70 - 130
			Hexane	2019/02/13		90	%	70 - 130
			Methylene Chloride(Dichloromethane)	2019/02/13		92	%	70 - 130
			Methyl Ethyl Ketone (2-Butanone)	2019/02/13		107	%	60 - 140
			Methyl Isobutyl Ketone	2019/02/13		105	%	70 - 130
			Methyl t-butyl ether (MTBE)	2019/02/13		91	%	70 - 130
			Styrene	2019/02/13		92	%	70 - 130
			1,1,1,2-Tetrachloroethane	2019/02/13		98	%	70 - 130
			1,1,2,2-Tetrachloroethane	2019/02/13		102	%	70 - 130
			Tetrachloroethylene	2019/02/13		92	%	70 - 130
			Toluene	2019/02/13		87	%	70 - 130
			1,1,1-Trichloroethane	2019/02/13		94	%	70 - 130
			1,1,2-Trichloroethane	2019/02/13		101	%	70 - 130
			Trichloroethylene	2019/02/13		91	%	70 - 130
			Trichlorofluoromethane (FREON 11)	2019/02/13		97	%	70 - 130
			Vinyl Chloride	2019/02/13		100	%	70 - 130
			p+m-Xylene	2019/02/13		82	%	70 - 130
			o-Xylene	2019/02/13		88	%	70 - 130
			F1 (C6-C10)	2019/02/13		97	%	60 - 140
5969101	XJI	Method Blank	4-Bromofluorobenzene	2019/02/13		92	%	70 - 130
			D4-1,2-Dichloroethane	2019/02/13		108	%	70 - 130
			D8-Toluene	2019/02/13		92	%	70 - 130
			Acetone (2-Propanone)	2019/02/13	<10		ug/L	
			Benzene	2019/02/13	<0.20		ug/L	
			Bromodichloromethane	2019/02/13	<0.50		ug/L	
			Bromoform	2019/02/13	<1.0		ug/L	
			Bromomethane	2019/02/13	<0.50		ug/L	
			Carbon Tetrachloride	2019/02/13	<0.20		ug/L	
			Chlorobenzene	2019/02/13	<0.20		ug/L	
			Chloroform	2019/02/13	<0.20		ug/L	
			Dibromochloromethane	2019/02/13	<0.50		ug/L	
			1,2-Dichlorobenzene	2019/02/13	<0.50		ug/L	
			1,3-Dichlorobenzene	2019/02/13	<0.50		ug/L	
			1,4-Dichlorobenzene	2019/02/13	<0.50		ug/L	
			Dichlorodifluoromethane (FREON 12)	2019/02/13	<1.0		ug/L	
			1,1-Dichloroethane	2019/02/13	<0.20		ug/L	
			1,2-Dichloroethane	2019/02/13	<0.50		ug/L	

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,1-Dichloroethylene	2019/02/13	<0.20		ug/L	
			cis-1,2-Dichloroethylene	2019/02/13	<0.50		ug/L	
			trans-1,2-Dichloroethylene	2019/02/13	<0.50		ug/L	
			1,2-Dichloropropane	2019/02/13	<0.20		ug/L	
			cis-1,3-Dichloropropene	2019/02/13	<0.30		ug/L	
			trans-1,3-Dichloropropene	2019/02/13	<0.40		ug/L	
			Ethylbenzene	2019/02/13	<0.20		ug/L	
			Ethylene Dibromide	2019/02/13	<0.20		ug/L	
			Hexane	2019/02/13	<1.0		ug/L	
			Methylene Chloride(Dichloromethane)	2019/02/13	<2.0		ug/L	
			Methyl Ethyl Ketone (2-Butanone)	2019/02/13	<10		ug/L	
			Methyl Isobutyl Ketone	2019/02/13	<5.0		ug/L	
			Methyl t-butyl ether (MTBE)	2019/02/13	<0.50		ug/L	
			Styrene	2019/02/13	<0.50		ug/L	
			1,1,1,2-Tetrachloroethane	2019/02/13	<0.50		ug/L	
			1,1,2,2-Tetrachloroethane	2019/02/13	<0.50		ug/L	
			Tetrachloroethylene	2019/02/13	<0.20		ug/L	
			Toluene	2019/02/13	<0.20		ug/L	
			1,1,1-Trichloroethane	2019/02/13	<0.20		ug/L	
			1,1,2-Trichloroethane	2019/02/13	<0.50		ug/L	
			Trichloroethylene	2019/02/13	<0.20		ug/L	
			Trichlorofluoromethane (FREON 11)	2019/02/13	<0.50		ug/L	
			Vinyl Chloride	2019/02/13	<0.20		ug/L	
			p+m-Xylene	2019/02/13	<0.20		ug/L	
			o-Xylene	2019/02/13	<0.20		ug/L	
			Total Xylenes	2019/02/13	<0.20		ug/L	
			F1 (C6-C10)	2019/02/13	<25		ug/L	
			F1 (C6-C10) - BTEX	2019/02/13	<25		ug/L	
5969101	XJI	RPD	Acetone (2-Propanone)	2019/02/14	NC		%	30
			Benzene	2019/02/14	NC		%	30
			Bromodichloromethane	2019/02/14	NC		%	30
			Bromoform	2019/02/14	NC		%	30
			Bromomethane	2019/02/14	NC		%	30
			Carbon Tetrachloride	2019/02/14	NC		%	30
			Chlorobenzene	2019/02/14	NC		%	30
			Chloroform	2019/02/14	NC		%	30
			Dibromochloromethane	2019/02/14	NC		%	30
			1,2-Dichlorobenzene	2019/02/14	NC		%	30
			1,3-Dichlorobenzene	2019/02/14	NC		%	30
			1,4-Dichlorobenzene	2019/02/14	NC		%	30
			Dichlorodifluoromethane (FREON 12)	2019/02/14	NC		%	30
			1,1-Dichloroethane	2019/02/14	NC		%	30
			1,2-Dichloroethane	2019/02/14	NC		%	30
			1,1-Dichloroethylene	2019/02/14	NC		%	30
			cis-1,2-Dichloroethylene	2019/02/14	NC		%	30
			trans-1,2-Dichloroethylene	2019/02/14	NC		%	30
			1,2-Dichloropropane	2019/02/14	NC		%	30
			cis-1,3-Dichloropropene	2019/02/14	NC		%	30
			trans-1,3-Dichloropropene	2019/02/14	NC		%	30
			Ethylbenzene	2019/02/14	NC		%	30
			Ethylene Dibromide	2019/02/14	NC		%	30
			Hexane	2019/02/14	NC		%	30
			Methylene Chloride(Dichloromethane)	2019/02/14	NC		%	30

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Methyl Ethyl Ketone (2-Butanone)	2019/02/14	NC		%	30
			Methyl Isobutyl Ketone	2019/02/14	NC		%	30
			Methyl t-butyl ether (MTBE)	2019/02/14	NC		%	30
			Styrene	2019/02/14	NC		%	30
			1,1,1,2-Tetrachloroethane	2019/02/14	NC		%	30
			1,1,2,2-Tetrachloroethane	2019/02/14	NC		%	30
			Tetrachloroethylene	2019/02/14	NC		%	30
			Toluene	2019/02/14	NC		%	30
			1,1,1-Trichloroethane	2019/02/14	NC		%	30
			1,1,2-Trichloroethane	2019/02/14	NC		%	30
			Trichloroethylene	2019/02/14	NC		%	30
			Trichlorofluoromethane (FREON 11)	2019/02/14	NC		%	30
			Vinyl Chloride	2019/02/14	NC		%	30
			p+m-Xylene	2019/02/14	NC		%	30
			o-Xylene	2019/02/14	NC		%	30
			Total Xylenes	2019/02/14	NC		%	30
			F1 (C6-C10)	2019/02/14	NC		%	30
			F1 (C6-C10) - BTEX	2019/02/14	NC		%	30
5969108	PBA	Matrix Spike	Dissolved Lead (Pb)	2019/02/12		89	%	80 - 120
5969108	PBA	Spiked Blank	Dissolved Lead (Pb)	2019/02/12		98	%	80 - 120
5969108	PBA	Method Blank	Dissolved Lead (Pb)	2019/02/12	<0.50		ug/L	
5969108	PBA	RPD	Dissolved Lead (Pb)	2019/02/12	3.2		%	20
5973841	GUL	Matrix Spike	o-Terphenyl	2019/02/14		116	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/14		107	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2019/02/14		115	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2019/02/14		116	%	50 - 130
5973841	GUL	Spiked Blank	o-Terphenyl	2019/02/14		125	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/14		109	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2019/02/14		118	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2019/02/14		115	%	60 - 130
5973841	GUL	Method Blank	o-Terphenyl	2019/02/14		106	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2019/02/14	<100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2019/02/14	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2019/02/14	<200		ug/L	
5973841	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2019/02/14	5.2		%	30
			F3 (C16-C34 Hydrocarbons)	2019/02/14	12		%	30
			F4 (C34-C50 Hydrocarbons)	2019/02/14	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).

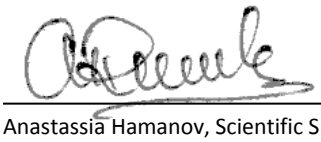
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B935996
Report Date: 2019/02/14

Pinchin Ltd
Client Project #: 233963.001
Site Location: 2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VALIDATION SIGNATURE PAGE

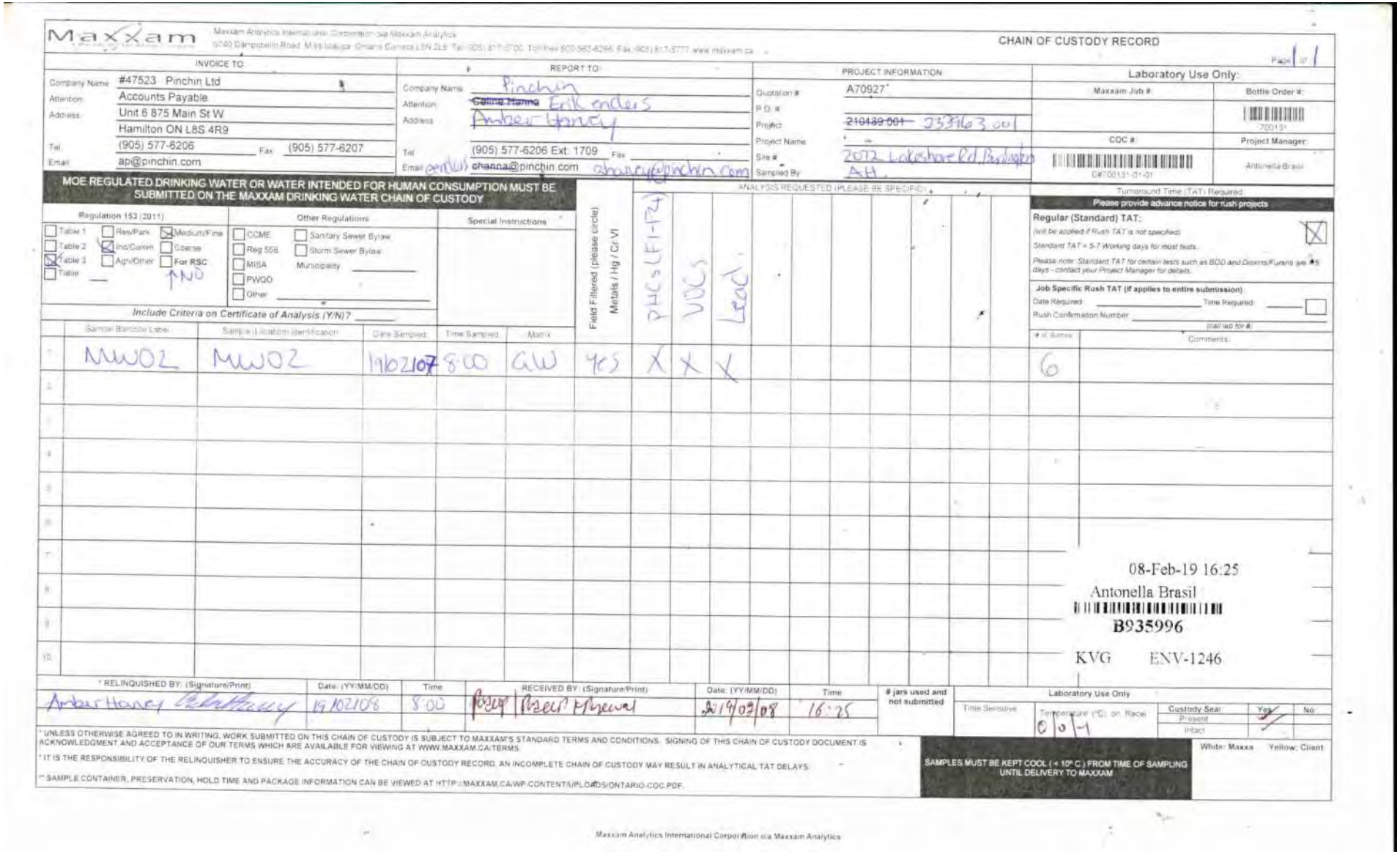
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca



Maxxam Analytics International Corporation o/a Maxxam Analytics
5740 Campobello Road, Mississauga, Ontario, Canada L5N 2L8 Tel: (905) 817-5700 Toll Free: 800 563-6266 Fax: (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:
Company Name: #47523 Pinchin Ltd
Attention: Accounts Payable
Address: Unit 6 875 Main St W, Hamilton ON L8S 4R9
Tel: (905) 577-6206 Fax: (905) 577-6207
Email: ap@pinchin.com

REPORT TO:
Company Name: Pinchin
Attention: ~~Celine Haney~~ Erik enders
Address: Amber Haney
Tel: (905) 577-6206 Ext: 1709 Fax:
Email: (enders) channa@pinchin.com (haney) ahaney@pinchin.com

PROJECT INFORMATION:
Quotation #: A70927
P.O. #:
Project: ~~210189-001~~ 233963.001
Project Name:
Site #: 2072 Lakeshore Rd, Burlington
Sampled By: AH

Laboratory Use Only:
Maxxam Job #:
Bottle Order #: 700151
COC #: C#700131-01-01
Project Manager: Antonella Brasil

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☒ Medium/Fine; ☐ Table 2 ☒ Ind/Comm ☐ Coarse; ☒ Table 3 ☐ Agri/Other ☐ For RSC; ☐ Table ___ — PWQO
Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw; ☐ Reg 558 ☐ Storm Sewer Bylaw; ☐ MISA Municipality ___; ☐ PWQO; ☐ Other ___
Special Instructions:
Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

	Sample Barcode Label	Sample Location Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	PHCs (F1-F4)	VOCs	Lead	# of Bottles	Comments
1		MW02	MW02	19/02/07	8:00	GW	Yes	X	X	X	6	
2												
3												
4												
5												
6												
7												
8												
9												
10												

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are 5-7 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ (call lab for #)

08-Feb-19 16:25
Antonella Brasil
B935996
KVG ENV-1246

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Amber Haney	19/02/08	8:00	[illegible]	19/02/08	16:25	

Laboratory Use Only
Time Sensitive
Temperature (°C) on Receipt: 6 0 -1
Custody Seal Present: Yes ✓ No
Intact

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.
** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxam Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam
A Bureau Veritas Group Company

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 699091-05-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/11
Report #: R5590541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B930218
Received: 2019/02/04, 14:10

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Cyanide (WAD) in Leachates	1	N/A	2019/02/07	CAM SOP-00457	OMOE 3015 m
Fluoride by ISE in Leachates	1	2019/02/07	2019/02/07	CAM SOP-00449	SM 23 4500-F- C m
Mercury (TCLP Leachable) (mg/L)	1	N/A	2019/02/08	CAM SOP-00453	EPA 7470A m
Total Metals in TCLP Leachate by ICPMS	1	2019/02/07	2019/02/07	CAM SOP-00447	EPA 6020B m
Nitrate(NO3) + Nitrite(NO2) in Leachate	1	N/A	2019/02/08	CAM SOP-00440	SM 23 4500-NO3I/NO2B
PAH Compounds in Leachate by GC/MS (SIM)	1	2019/02/07	2019/02/08	CAM SOP-00318	EPA 8270D m
Polychlorinated Biphenyl in Leachate	1	2019/02/08	2019/02/08	CAM SOP-00309	EPA 8082A m
TCLP - % Solids	1	2019/02/06	2019/02/07	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	1	N/A	2019/02/07	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	1	N/A	2019/02/07	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction	1	2019/02/05	2019/02/06	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates	1	2019/02/06	2019/02/06	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Your C.O.C. #: 699091-05-01

Attention: Erik Enders

Pinchin Ltd
Unit 6
875 Main St W
Hamilton, ON
CANADA L8S 4R9

Report Date: 2019/02/11
Report #: R5590541
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B930218
Received: 2019/02/04, 14:10

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.

Encryption Key

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

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

RESULTS OF ANALYSES OF SOIL

Maxxam ID		IXF514		
Sampling Date		2019/02/02 11:00		
COC Number		699091-05-01		
	UNITS	TCLP	RDL	QC Batch
Charge/Prep Analysis				
Amount Extracted (Wet Weight) (g)	N/A	25	N/A	5960420
Inorganics				
Final pH	pH	6.37		5962938
Leachable Fluoride (F-)	mg/L	0.24	0.10	5964620
Initial pH	pH	9.51		5962938
TCLP - % Solids	%	100	0.2	5962933
TCLP Extraction Fluid	N/A	FLUID 1		5962937
Leachable WAD Cyanide (Free)	mg/L	<0.010	0.010	5964623
Leachable Nitrite (N)	mg/L	<0.10	0.10	5964622
Leachable Nitrate (N)	mg/L	<1.0	1.0	5964622
Leachable Nitrate + Nitrite (N)	mg/L	<1.0	1.0	5964622
Metals				
Leachable Mercury (Hg)	mg/L	<0.0010	0.0010	5964802

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
N/A = Not Applicable

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		IXF514		
Sampling Date		2019/02/02 11:00		
COC Number		699091-05-01		
	UNITS	TCLP	RDL	QC Batch
Metals				
Leachable Arsenic (As)	mg/L	<0.2	0.2	5964575
Leachable Barium (Ba)	mg/L	0.3	0.2	5964575
Leachable Boron (B)	mg/L	0.1	0.1	5964575
Leachable Cadmium (Cd)	mg/L	<0.05	0.05	5964575
Leachable Chromium (Cr)	mg/L	<0.1	0.1	5964575
Leachable Lead (Pb)	mg/L	<0.1	0.1	5964575
Leachable Selenium (Se)	mg/L	<0.1	0.1	5964575
Leachable Silver (Ag)	mg/L	<0.01	0.01	5964575
Leachable Uranium (U)	mg/L	<0.01	0.01	5964575

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Maxxam ID		IXF514		
Sampling Date		2019/02/02 11:00		
COC Number		699091-05-01		
	UNITS	TCLP	RDL	QC Batch
Polyaromatic Hydrocarbons				
Leachable Benzo(a)pyrene	ug/L	<0.10	0.10	5965556
Surrogate Recovery (%)				
Leachable D10-Anthracene	%	118		5965556
Leachable D14-Terphenyl (FS)	%	123		5965556
Leachable D8-Acenaphthylene	%	111		5965556

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		IXF514		
Sampling Date		2019/02/02 11:00		
COC Number		699091-05-01		
	UNITS	TCLP	RDL	QC Batch
Volatile Organics				
Leachable Benzene	mg/L	<0.020	0.020	5960236
Leachable Carbon Tetrachloride	mg/L	<0.020	0.020	5960236
Leachable Chlorobenzene	mg/L	<0.020	0.020	5960236
Leachable Chloroform	mg/L	<0.020	0.020	5960236
Leachable 1,2-Dichlorobenzene	mg/L	<0.050	0.050	5960236
Leachable 1,4-Dichlorobenzene	mg/L	<0.050	0.050	5960236
Leachable 1,2-Dichloroethane	mg/L	<0.050	0.050	5960236
Leachable 1,1-Dichloroethylene	mg/L	<0.020	0.020	5960236
Leachable Methylene Chloride(Dichloromethane)	mg/L	<0.20	0.20	5960236
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	<1.0	1.0	5960236
Leachable Tetrachloroethylene	mg/L	<0.020	0.020	5960236
Leachable Trichloroethylene	mg/L	<0.020	0.020	5960236
Leachable Vinyl Chloride	mg/L	<0.020	0.020	5960236
Surrogate Recovery (%)				
Leachable 4-Bromofluorobenzene	%	94		5960236
Leachable D4-1,2-Dichloroethane	%	103		5960236
Leachable D8-Toluene	%	99		5960236

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

POLYCHLORINATED BIPHENYLS BY GC-ECD (SOIL)

Maxxam ID		IXF514		
Sampling Date		2019/02/02 11:00		
COC Number		699091-05-01		
	UNITS	TCLP	RDL	QC Batch
PCBs				
Leachable Aroclor 1016	ug/L	<3.0	3.0	5966638
Leachable Aroclor 1221	ug/L	<3.0	3.0	5966638
Leachable Aroclor 1242	ug/L	<3.0	3.0	5966638
Leachable Aroclor 1248	ug/L	<3.0	3.0	5966638
Leachable Aroclor 1254	ug/L	<3.0	3.0	5966638
Leachable Aroclor 1260	ug/L	<3.0	3.0	5966638
Leachable Total PCB	ug/L	<3.0	3.0	5966638
Surrogate Recovery (%)				
Leachable Decachlorobiphenyl	%	93		5966638

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

GENERAL COMMENTS

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

Package 1	3.3°C

Results relate only to the items tested.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
5960236	JPN	Matrix Spike	Leachable 4-Bromofluorobenzene	2019/02/06		97	%	70 - 130
			Leachable D4-1,2-Dichloroethane	2019/02/06		103	%	70 - 130
			Leachable D8-Toluene	2019/02/06		100	%	70 - 130
			Leachable Benzene	2019/02/06		91	%	70 - 130
			Leachable Carbon Tetrachloride	2019/02/06		90	%	70 - 130
			Leachable Chlorobenzene	2019/02/06		92	%	70 - 130
			Leachable Chloroform	2019/02/06		93	%	70 - 130
			Leachable 1,2-Dichlorobenzene	2019/02/06		93	%	70 - 130
			Leachable 1,4-Dichlorobenzene	2019/02/06		91	%	70 - 130
			Leachable 1,2-Dichloroethane	2019/02/06		95	%	70 - 130
			Leachable 1,1-Dichloroethylene	2019/02/06		88	%	70 - 130
			Leachable Methylene Chloride(Dichloromethan	2019/02/06		89	%	70 - 130
			Leachable Methyl Ethyl Ketone (2-Butanone)	2019/02/06		96	%	60 - 140
			Leachable Tetrachloroethylene	2019/02/06		88	%	70 - 130
			Leachable Trichloroethylene	2019/02/06		90	%	70 - 130
			Leachable Vinyl Chloride	2019/02/06		75	%	70 - 130
5960236	JPN	Spiked Blank	Leachable 4-Bromofluorobenzene	2019/02/06		97	%	70 - 130
			Leachable D4-1,2-Dichloroethane	2019/02/06		105	%	70 - 130
			Leachable D8-Toluene	2019/02/06		100	%	70 - 130
			Leachable Benzene	2019/02/06		99	%	70 - 130
			Leachable Carbon Tetrachloride	2019/02/06		96	%	70 - 130
			Leachable Chlorobenzene	2019/02/06		99	%	70 - 130
			Leachable Chloroform	2019/02/06		100	%	70 - 130
			Leachable 1,2-Dichlorobenzene	2019/02/06		100	%	70 - 130
			Leachable 1,4-Dichlorobenzene	2019/02/06		99	%	70 - 130
			Leachable 1,2-Dichloroethane	2019/02/06		104	%	70 - 130
			Leachable 1,1-Dichloroethylene	2019/02/06		94	%	70 - 130
			Leachable Methylene Chloride(Dichloromethan	2019/02/06		97	%	70 - 130
			Leachable Methyl Ethyl Ketone (2-Butanone)	2019/02/06		108	%	60 - 140
			Leachable Tetrachloroethylene	2019/02/06		96	%	70 - 130
			Leachable Trichloroethylene	2019/02/06		97	%	70 - 130
			Leachable Vinyl Chloride	2019/02/06		85	%	70 - 130
5960236	JPN	Method Blank	Leachable 4-Bromofluorobenzene	2019/02/06		96	%	70 - 130
			Leachable D4-1,2-Dichloroethane	2019/02/06		104	%	70 - 130
			Leachable D8-Toluene	2019/02/06		99	%	70 - 130
			Leachable Benzene	2019/02/06	<0.020		mg/L	
			Leachable Carbon Tetrachloride	2019/02/06	<0.020		mg/L	
			Leachable Chlorobenzene	2019/02/06	<0.020		mg/L	
			Leachable Chloroform	2019/02/06	<0.020		mg/L	
			Leachable 1,2-Dichlorobenzene	2019/02/06	<0.050		mg/L	
			Leachable 1,4-Dichlorobenzene	2019/02/06	<0.050		mg/L	
			Leachable 1,2-Dichloroethane	2019/02/06	<0.050		mg/L	
			Leachable 1,1-Dichloroethylene	2019/02/06	<0.020		mg/L	
			Leachable Methylene Chloride(Dichloromethan	2019/02/06	<0.20		mg/L	
			Leachable Methyl Ethyl Ketone (2-Butanone)	2019/02/06	<1.0		mg/L	
			Leachable Tetrachloroethylene	2019/02/06	<0.020		mg/L	
			Leachable Trichloroethylene	2019/02/06	<0.020		mg/L	
			Leachable Vinyl Chloride	2019/02/06	<0.020		mg/L	
5960236	JPN	RPD	Leachable Benzene	2019/02/06	NC		%	30
			Leachable Carbon Tetrachloride	2019/02/06	NC		%	30
			Leachable Chlorobenzene	2019/02/06	NC		%	30
			Leachable Chloroform	2019/02/06	NC		%	30

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable 1,2-Dichlorobenzene	2019/02/06	NC		%	30
			Leachable 1,4-Dichlorobenzene	2019/02/06	NC		%	30
			Leachable 1,2-Dichloroethane	2019/02/06	NC		%	30
			Leachable 1,1-Dichloroethylene	2019/02/06	NC		%	30
			Leachable Methylene Chloride(Dichloromethan	2019/02/06	NC		%	30
			Leachable Methyl Ethyl Ketone (2-Butanone)	2019/02/06	NC		%	30
			Leachable Tetrachloroethylene	2019/02/06	NC		%	30
			Leachable Trichloroethylene	2019/02/06	NC		%	30
			Leachable Vinyl Chloride	2019/02/06	NC		%	30
5964575	N_R	Matrix Spike	Leachable Arsenic (As)	2019/02/07		102	%	80 - 120
			Leachable Barium (Ba)	2019/02/07		NC	%	80 - 120
			Leachable Boron (B)	2019/02/07		104	%	80 - 120
			Leachable Cadmium (Cd)	2019/02/07		104	%	80 - 120
			Leachable Chromium (Cr)	2019/02/07		97	%	80 - 120
			Leachable Lead (Pb)	2019/02/07		102	%	80 - 120
			Leachable Selenium (Se)	2019/02/07		105	%	80 - 120
			Leachable Silver (Ag)	2019/02/07		100	%	80 - 120
			Leachable Uranium (U)	2019/02/07		100	%	80 - 120
5964575	N_R	Leachate Blank	Leachable Arsenic (As)	2019/02/07	<0.2		mg/L	
			Leachable Barium (Ba)	2019/02/07	<0.2		mg/L	
			Leachable Boron (B)	2019/02/07	<0.1		mg/L	
			Leachable Cadmium (Cd)	2019/02/07	<0.05		mg/L	
			Leachable Chromium (Cr)	2019/02/07	<0.1		mg/L	
			Leachable Lead (Pb)	2019/02/07	<0.1		mg/L	
			Leachable Selenium (Se)	2019/02/07	<0.1		mg/L	
			Leachable Silver (Ag)	2019/02/07	<0.01		mg/L	
			Leachable Uranium (U)	2019/02/07	<0.01		mg/L	
5964575	N_R	Spiked Blank	Leachable Arsenic (As)	2019/02/07		105	%	80 - 120
			Leachable Barium (Ba)	2019/02/07		105	%	80 - 120
			Leachable Boron (B)	2019/02/07		100	%	80 - 120
			Leachable Cadmium (Cd)	2019/02/07		106	%	80 - 120
			Leachable Chromium (Cr)	2019/02/07		102	%	80 - 120
			Leachable Lead (Pb)	2019/02/07		105	%	80 - 120
			Leachable Selenium (Se)	2019/02/07		108	%	80 - 120
			Leachable Silver (Ag)	2019/02/07		107	%	80 - 120
			Leachable Uranium (U)	2019/02/07		105	%	80 - 120
5964575	N_R	RPD	Leachable Arsenic (As)	2019/02/07	NC		%	35
			Leachable Barium (Ba)	2019/02/07	2.6		%	35
			Leachable Boron (B)	2019/02/07	33		%	35
			Leachable Cadmium (Cd)	2019/02/07	NC		%	35
			Leachable Chromium (Cr)	2019/02/07	NC		%	35
			Leachable Lead (Pb)	2019/02/07	NC		%	35
			Leachable Selenium (Se)	2019/02/07	NC		%	35
			Leachable Silver (Ag)	2019/02/07	NC		%	35
			Leachable Uranium (U)	2019/02/07	NC		%	35
5964620	SAU	Matrix Spike	Leachable Fluoride (F-)	2019/02/07		97	%	80 - 120
5964620	SAU	Leachate Blank	Leachable Fluoride (F-)	2019/02/07	<0.10		mg/L	
5964620	SAU	Spiked Blank	Leachable Fluoride (F-)	2019/02/07		105	%	80 - 120
5964620	SAU	Method Blank	Leachable Fluoride (F-)	2019/02/07	<0.10		mg/L	
5964620	SAU	RPD	Leachable Fluoride (F-)	2019/02/07	4.7		%	25
5964622	C_N	Matrix Spike	Leachable Nitrite (N)	2019/02/08		112	%	80 - 120
			Leachable Nitrate (N)	2019/02/08		83	%	80 - 120

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Nitrate + Nitrite (N)	2019/02/08		89	%	80 - 120
5964622	C_N	Leachate Blank	Leachable Nitrite (N)	2019/02/08	<0.10		mg/L	
			Leachable Nitrate (N)	2019/02/08	<1.0		mg/L	
			Leachable Nitrate + Nitrite (N)	2019/02/08	<1.0		mg/L	
5964622	C_N	Spiked Blank	Leachable Nitrite (N)	2019/02/08		94	%	80 - 120
			Leachable Nitrate (N)	2019/02/08		103	%	80 - 120
			Leachable Nitrate + Nitrite (N)	2019/02/08		101	%	80 - 120
5964622	C_N	Method Blank	Leachable Nitrite (N)	2019/02/08	<0.10		mg/L	
			Leachable Nitrate (N)	2019/02/08	<1.0		mg/L	
			Leachable Nitrate + Nitrite (N)	2019/02/08	<1.0		mg/L	
5964622	C_N	RPD	Leachable Nitrite (N)	2019/02/08	NC		%	25
			Leachable Nitrate (N)	2019/02/08	NC		%	25
			Leachable Nitrate + Nitrite (N)	2019/02/08	NC		%	25
5964623	BKE	Matrix Spike	Leachable WAD Cyanide (Free)	2019/02/07		99	%	80 - 120
5964623	BKE	Leachate Blank	Leachable WAD Cyanide (Free)	2019/02/07	<0.010		mg/L	
5964623	BKE	Spiked Blank	Leachable WAD Cyanide (Free)	2019/02/07		99	%	80 - 120
5964623	BKE	Method Blank	Leachable WAD Cyanide (Free)	2019/02/07	<0.0020		mg/L	
5964623	BKE	RPD	Leachable WAD Cyanide (Free)	2019/02/07	NC		%	20
5964802	RON	Matrix Spike	Leachable Mercury (Hg)	2019/02/08		96	%	75 - 125
5964802	RON	Leachate Blank	Leachable Mercury (Hg)	2019/02/08	<0.0010		mg/L	
5964802	RON	Spiked Blank	Leachable Mercury (Hg)	2019/02/08		89	%	80 - 120
5964802	RON	Method Blank	Leachable Mercury (Hg)	2019/02/08	<0.0010		mg/L	
5964802	RON	RPD	Leachable Mercury (Hg)	2019/02/08	NC		%	25
5965556	RAJ	Matrix Spike	Leachable D10-Anthracene	2019/02/08		128	%	50 - 130
			Leachable D14-Terphenyl (FS)	2019/02/08		141 (1)	%	50 - 130
			Leachable D8-Acenaphthylene	2019/02/08		122	%	50 - 130
			Leachable Benzo(a)pyrene	2019/02/08		102	%	50 - 130
5965556	RAJ	Spiked Blank	Leachable D10-Anthracene	2019/02/08		119	%	50 - 130
			Leachable D14-Terphenyl (FS)	2019/02/08		131 (2)	%	50 - 130
			Leachable D8-Acenaphthylene	2019/02/08		114	%	50 - 130
			Leachable Benzo(a)pyrene	2019/02/08		95	%	50 - 130
5965556	RAJ	Method Blank	Leachable D10-Anthracene	2019/02/08		145 (3)	%	50 - 130
			Leachable D14-Terphenyl (FS)	2019/02/08		156 (3)	%	50 - 130
			Leachable D8-Acenaphthylene	2019/02/08		134 (3)	%	50 - 130
			Leachable Benzo(a)pyrene	2019/02/08	<0.10		ug/L	
5965556	RAJ	RPD	Leachable Benzo(a)pyrene	2019/02/08	NC		%	40
5966638	SVS	Matrix Spike	Leachable Aroclor 1260	2019/02/08		98	%	30 - 130
			Leachable Decachlorobiphenyl	2019/02/08		87	%	30 - 130
			Leachable Total PCB	2019/02/08		98	%	30 - 130
5966638	SVS	Spiked Blank	Leachable Aroclor 1260	2019/02/08		105	%	30 - 130
			Leachable Decachlorobiphenyl	2019/02/08		91	%	30 - 130
			Leachable Total PCB	2019/02/08		105	%	30 - 130
5966638	SVS	Method Blank	Leachable Aroclor 1016	2019/02/08	<3.0		ug/L	
			Leachable Aroclor 1221	2019/02/08	<3.0		ug/L	
			Leachable Aroclor 1242	2019/02/08	<3.0		ug/L	
			Leachable Aroclor 1248	2019/02/08	<3.0		ug/L	
			Leachable Aroclor 1254	2019/02/08	<3.0		ug/L	
			Leachable Aroclor 1260	2019/02/08	<3.0		ug/L	
			Leachable Decachlorobiphenyl	2019/02/08		92	%	30 - 130
			Leachable Total PCB	2019/02/08	<3.0		ug/L	
5966638	SVS	RPD	Leachable Aroclor 1016	2019/02/08	NC		%	40
			Leachable Aroclor 1221	2019/02/08	NC		%	40

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Aroclor 1242	2019/02/08	NC		%	40
			Leachable Aroclor 1248	2019/02/08	NC		%	40
			Leachable Aroclor 1254	2019/02/08	NC		%	40
			Leachable Aroclor 1260	2019/02/08	NC		%	40
			Leachable Total PCB	2019/02/08	NC		%	40

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.

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

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) Surrogate recovery was above the upper control limit due to matrix interference. This may represent a high bias in some results.

(2) Surrogate recovery was above the upper control limit This may represent a high bias in some results.

(3) The recovery was above the upper control limit. This has been evaluated as having no significant impact on the data reported since no positive hit detected in the sample.

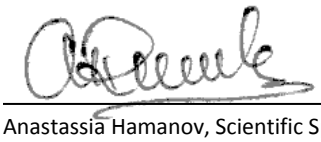
Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B930218
Report Date: 2019/02/11

Pinchin Ltd
Client Project #: 233963.001
Site Location: PHASE II ESA/2072 LAKESHORE RD, BURLINGTON
Sampler Initials: AH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#47523 Pinchin Ltd	Company Name:	Pinchin	Quotation #:	A70927	Maxxam Job #:	Bottle Order #: 699091
Attention:	Accounts Payable	Attention:	Erik Forbes	P.O. #:			
Address:	Unit 6 875 Main St W Hamilton ON L8S 4R9	Address:	Amber Harvey	Project:	233962.001		
Tel:	(905) 577-6206 Fax: (905) 577-6207	Tel:		Project Name:	Phase II ESA	COC #:	Project Manager:
Email:	ap@pinchin.com	Email:	eforbes@pinchin.com aharvey@pinchin.com	Site #:	2023 Lakeshore Rd, Burlington	C#699091-05-01	Antonella Brasil
				Sampled By:	AH		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agr/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☒ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle) Metals / Hg / Cr VI	Benzo(a)pyrene	VOCs	Inorganics	PCBs	# of Bottles	Comments
1	TCLP	TCLP	19/02/02	11:00am	Soil		X	X	X	X	3	
2												
3												
4												
5												
6												
7												
8												
9												
10												

04-Feb-19 14:10
Antonella Brasil
B930218
THP ENV-881

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
Amber Harvey	19/02/04	9:30am		W19/02/04	17:10			2/4/7	Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF. # 76850

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Your Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Your C.O.C. #: C#997904-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2024/07/05
Report #: R8222761
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J7649
Received: 2024/06/26, 17:50

Sample Matrix: Soil
Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hot Water Extractable Boron	4	2024/07/03	2024/07/04	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2024/07/03	2024/07/05	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	1	2024/07/03	2024/07/04	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	4	2024/07/04	2024/07/04	CAM SOP-00457	OMOE E3015 m
Conductivity	3	2024/07/03	2024/07/03	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	2	2024/07/04	2024/07/04	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	4	2024/07/02	2024/07/02	CAM SOP-00436	EPA 3060A/7199 m
Hexavalent Chromium in Soil by IC (1)	1	2024/07/03	2024/07/03	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	5	N/A	2024/07/02	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2024/07/04	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	6	2024/06/30	2024/07/01	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	4	2024/07/03	2024/07/03	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	1	2024/07/03	2024/07/04	CAM SOP-00447	EPA 6020B m
Moisture	10	N/A	2024/06/29	CAM SOP-00445	Carter 2nd ed 70.2 m
Moisture	1	N/A	2024/07/02	CAM SOP-00445	Carter 2nd ed 70.2 m
pH CaCl2 EXTRACT	1	2024/07/03	2024/07/03	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	4	2024/07/04	2024/07/04	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	5	N/A	2024/07/04	CAM SOP-00102	EPA 6010C

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

Your Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Your C.O.C. #: C#997904-01-01

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2024/07/05
Report #: R8222761
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J7649
Received: 2024/06/26, 17:50

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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756
==========
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.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ZOZ493		ZOZ495	ZOZ498			
Sampling Date			2024/06/25 09:38		2024/06/25 11:55	2024/06/26 10:35			
COC Number			C#997904-01-01		C#997904-01-01	C#997904-01-01			
	UNITS	Criteria	BH201 DP2	QC Batch	BH202 DP2	BH205 DP2	RDL	MDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	5.0	**8.0**	9489769	1.3	1.7			9487027
Inorganics									
Conductivity	mS/cm	0.7	0.45	9493946	0.17	0.17	0.002	0.0005	9492171
Available (CaCl2) pH	pH	-	8.13	9492590	7.47	7.82			9494035
WAD Cyanide (Free)	ug/g	0.051	<0.01	9492340	<0.01	<0.01	0.01	0.0019	9493818
Chromium (VI)	ug/g	8	<0.18	9491197	<0.18	<0.18	0.18	0.050	9488930
Metals									
Hot Water Ext. Boron (B)	ug/g	1.5	0.063	9493095	0.18	0.12	0.050	0.030	9491627
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	9492699	<0.20	<0.20	0.20	0.10	9492232
Acid Extractable Arsenic (As)	ug/g	18	3.1	9492699	1.5	1.6	1.0	0.10	9492232
Acid Extractable Barium (Ba)	ug/g	390	12	9492699	44	18	0.50	0.30	9492232
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	9492699	0.35	0.21	0.20	0.020	9492232
Acid Extractable Boron (B)	ug/g	120	6.2	9492699	<5.0	<5.0	5.0	1.0	9492232
Acid Extractable Cadmium (Cd)	ug/g	1.2	1.1	9492699	<0.10	<0.10	0.10	0.030	9492232
Acid Extractable Chromium (Cr)	ug/g	160	6.7	9492699	11	6.6	1.0	0.20	9492232
Acid Extractable Cobalt (Co)	ug/g	22	3.2	9492699	3.2	3.4	0.10	0.020	9492232
Acid Extractable Copper (Cu)	ug/g	140	15	9492699	4.9	10	0.50	0.20	9492232
Acid Extractable Lead (Pb)	ug/g	120	99	9492699	24	3.6	1.0	0.10	9492232
Acid Extractable Molybdenum (Mo)	ug/g	6.9	0.52	9492699	<0.50	0.50	0.50	0.10	9492232
Acid Extractable Nickel (Ni)	ug/g	100	7.0	9492699	6.4	7.2	0.50	0.20	9492232
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	9492699	<0.50	<0.50	0.50	0.10	9492232
Acid Extractable Silver (Ag)	ug/g	20	<0.20	9492699	<0.20	<0.20	0.20	0.040	9492232
Acid Extractable Thallium (Tl)	ug/g	1	0.078	9492699	<0.050	<0.050	0.050	0.010	9492232
Acid Extractable Uranium (U)	ug/g	23	0.46	9492699	0.62	0.35	0.050	0.030	9492232
Acid Extractable Vanadium (V)	ug/g	86	14	9492699	21	13	5.0	0.50	9492232
Acid Extractable Zinc (Zn)	ug/g	340	**660**	9492699	27	17	5.0	0.50	9492232
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	9492699	<0.050	<0.050	0.050	0.030	9492232

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ZOZ498				ZOZ500			
Sampling Date			2024/06/26 10:35				2024/06/26 11:30			
COC Number			C#997904-01-01				C#997904-01-01			
	UNITS	Criteria	BH205 DP2 Lab-Dup	RDL	MDL	QC Batch	BH206 DP3	RDL	MDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.0					0.41 (1)			9487027
Inorganics										
Conductivity	mS/cm	0.7					0.094	0.002	0.0005	9492171
Available (CaCl2) pH	pH	-					7.78			9494035
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	0.0019	9493818	<0.01	0.01	0.0019	9493818
Chromium (VI)	ug/g	8	<0.18	0.18	0.050	9488930	<0.18	0.18	0.050	9488930
Metals										
Hot Water Ext. Boron (B)	ug/g	1.5					0.050	0.050	0.030	9491627
Acid Extractable Antimony (Sb)	ug/g	7.5					<0.20	0.20	0.10	9492232
Acid Extractable Arsenic (As)	ug/g	18					1.3	1.0	0.10	9492232
Acid Extractable Barium (Ba)	ug/g	390					18	0.50	0.30	9492232
Acid Extractable Beryllium (Be)	ug/g	4					<0.20	0.20	0.020	9492232
Acid Extractable Boron (B)	ug/g	120					<5.0	5.0	1.0	9492232
Acid Extractable Cadmium (Cd)	ug/g	1.2					<0.10	0.10	0.030	9492232
Acid Extractable Chromium (Cr)	ug/g	160					6.3	1.0	0.20	9492232
Acid Extractable Cobalt (Co)	ug/g	22					3.6	0.10	0.020	9492232
Acid Extractable Copper (Cu)	ug/g	140					10	0.50	0.20	9492232
Acid Extractable Lead (Pb)	ug/g	120					3.7	1.0	0.10	9492232
Acid Extractable Molybdenum (Mo)	ug/g	6.9					<0.50	0.50	0.10	9492232
Acid Extractable Nickel (Ni)	ug/g	100					7.2	0.50	0.20	9492232
Acid Extractable Selenium (Se)	ug/g	2.4					<0.50	0.50	0.10	9492232
Acid Extractable Silver (Ag)	ug/g	20					<0.20	0.20	0.040	9492232
Acid Extractable Thallium (Tl)	ug/g	1					<0.050	0.050	0.010	9492232
Acid Extractable Uranium (U)	ug/g	23					0.31	0.050	0.030	9492232

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ZOZ498				ZOZ500			
Sampling Date			2024/06/26 10:35				2024/06/26 11:30			
COC Number			C#997904-01-01				C#997904-01-01			
	UNITS	Criteria	BH205 DP2 Lab-Dup	RDL	MDL	QC Batch	BH206 DP3	RDL	MDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86					13	5.0	0.50	9492232
Acid Extractable Zinc (Zn)	ug/g	340					17	5.0	0.50	9492232
Acid Extractable Mercury (Hg)	ug/g	0.27					<0.050	0.050	0.030	9492232

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ZOZ502			
Sampling Date			2024/06/26 11:30			
COC Number			C#997904-01-01			
	UNITS	Criteria	DUP 263	RDL	MDL	QC Batch
Calculated Parameters						
Sodium Adsorption Ratio	N/A	5.0	0.43 (1)			9487027
Inorganics						
Conductivity	mS/cm	0.7	0.090	0.002	0.0005	9493946
Available (CaCl2) pH	pH	-	7.81			9494035
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	0.0019	9493818
Chromium (VI)	ug/g	8	<0.18	0.18	0.050	9488930
Metals						
Hot Water Ext. Boron (B)	ug/g	1.5	0.052	0.050	0.030	9491627
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	0.10	9492232
Acid Extractable Arsenic (As)	ug/g	18	1.1	1.0	0.10	9492232
Acid Extractable Barium (Ba)	ug/g	390	16	0.50	0.30	9492232
Acid Extractable Beryllium (Be)	ug/g	4	<0.20	0.20	0.020	9492232
Acid Extractable Boron (B)	ug/g	120	<5.0	5.0	1.0	9492232
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	0.030	9492232
Acid Extractable Chromium (Cr)	ug/g	160	5.9	1.0	0.20	9492232
Acid Extractable Cobalt (Co)	ug/g	22	3.6	0.10	0.020	9492232
Acid Extractable Copper (Cu)	ug/g	140	9.8	0.50	0.20	9492232
Acid Extractable Lead (Pb)	ug/g	120	3.3	1.0	0.10	9492232
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	0.10	9492232
Acid Extractable Nickel (Ni)	ug/g	100	6.6	0.50	0.20	9492232
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	0.10	9492232
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	0.040	9492232
Acid Extractable Thallium (Tl)	ug/g	1	<0.050	0.050	0.010	9492232
Acid Extractable Uranium (U)	ug/g	23	0.28	0.050	0.030	9492232

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ZOZ502			
Sampling Date			2024/06/26 11:30			
COC Number			C#997904-01-01			
	UNITS	Criteria	DUP 263	RDL	MDL	QC Batch
Acid Extractable Vanadium (V)	ug/g	86	12	5.0	0.50	9492232
Acid Extractable Zinc (Zn)	ug/g	340	16	5.0	0.50	9492232
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	0.030	9492232

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

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

Bureau Veritas ID			ZOZ494	ZOZ496				ZOZ497			
Sampling Date			2024/06/25 09:40	2024/06/26 13:15				2024/06/26 10:25			
COC Number			C#997904-01-01	C#997904-01-01				C#997904-01-01			
	UNITS	Criteria	BH201 DP4A	BH203 DP5	RDL	MDL	QC Batch	BH204 DP5	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons											
Benzene	ug/g	0.21	<0.020	<0.020	0.020	0.020	9487996	<0.020	0.020	0.020	9493396
Toluene	ug/g	2.3	<0.020	<0.020	0.020	0.020	9487996	<0.020	0.020	0.020	9493396
Ethylbenzene	ug/g	2	<0.020	<0.020	0.020	0.020	9487996	<0.020	0.020	0.020	9493396
o-Xylene	ug/g	-	<0.020	<0.020	0.020	0.020	9487996	<0.020	0.020	0.020	9493396
p+m-Xylene	ug/g	-	<0.040	<0.040	0.040	0.040	9487996	<0.040	0.040	0.040	9493396
Total Xylenes	ug/g	3.1	<0.040	<0.040	0.040	0.040	9487996	<0.040	0.040	0.040	9493396
F1 (C6-C10)	ug/g	55	<10	<10	10	5.0	9487996	<10	10	5.0	9493396
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	5.0	9487996	<10	10	5.0	9493396
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	5.0	9487974				
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	5.0	9487974				
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	10	9487974				
Reached Baseline at C50	ug/g	-	Yes	Yes			9487974				
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	-	109	106			9487996	101			9493396
4-Bromofluorobenzene	%	-	96	99			9487996	104			9493396
D10-o-Xylene	%	-	102	107			9487996	102			9493396
D4-1,2-Dichloroethane	%	-	111	110			9487996	113			9493396
o-Terphenyl	%	-	100	102			9487974				

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

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

Bureau Veritas ID			ZOZ499				ZOZ499			
Sampling Date			2024/06/26 10:45				2024/06/26 10:45			
COC Number			C#997904-01-01				C#997904-01-01			
	UNITS	Criteria	BH205 DP4	RDL	MDL	QC Batch	BH205 DP4 Lab-Dup	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons										
Benzene	ug/g	0.21	<0.020	0.020	0.020	9487996				
Toluene	ug/g	2.3	<0.020	0.020	0.020	9487996				
Ethylbenzene	ug/g	2	<0.020	0.020	0.020	9487996				
o-Xylene	ug/g	-	<0.020	0.020	0.020	9487996				
p+m-Xylene	ug/g	-	<0.040	0.040	0.040	9487996				
Total Xylenes	ug/g	3.1	<0.040	0.040	0.040	9487996				
F1 (C6-C10)	ug/g	55	<10	10	5.0	9487996				
F1 (C6-C10) - BTEX	ug/g	55	<10	10	5.0	9487996				
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	5.0	9487974	<10	10	5.0	9487974
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	5.0	9487974	<50	50	5.0	9487974
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	10	9487974	<50	50	10	9487974
Reached Baseline at C50	ug/g	-	Yes			9487974	Yes			9487974
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	-	108			9487996				
4-Bromofluorobenzene	%	-	92			9487996				
D10-o-Xylene	%	-	118			9487996				
D4-1,2-Dichloroethane	%	-	104			9487996				
o-Terphenyl	%	-	95			9487974	99			9487974

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

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

Bureau Veritas ID			ZOZ501	ZOZ503			
Sampling Date			2024/06/26 11:45	2024/06/26 11:35			
COC Number			C#997904-01-01	C#997904-01-01			
	UNITS	Criteria	BH206 DP4	DUP 264	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons							
Benzene	ug/g	0.21	<0.020	<0.020	0.020	0.020	9487996
Toluene	ug/g	2.3	<0.020	<0.020	0.020	0.020	9487996
Ethylbenzene	ug/g	2	<0.020	<0.020	0.020	0.020	9487996
o-Xylene	ug/g	-	<0.020	<0.020	0.020	0.020	9487996
p+m-Xylene	ug/g	-	<0.040	<0.040	0.040	0.040	9487996
Total Xylenes	ug/g	3.1	<0.040	<0.040	0.040	0.040	9487996
F1 (C6-C10)	ug/g	55	<10	<10	10	5.0	9487996
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	5.0	9487996
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	5.0	9487974
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	5.0	9487974
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	10	9487974
Reached Baseline at C50	ug/g	-	Yes	Yes			9487974
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	-	107	108			9487996
4-Bromofluorobenzene	%	-	92	92			9487996
D10-o-Xylene	%	-	120	111			9487996
D4-1,2-Dichloroethane	%	-	110	110			9487996
o-Terphenyl	%	-	99	99			9487974

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZOZ493		ZOZ494	ZOZ495		ZOZ496			
Sampling Date		2024/06/25 09:38		2024/06/25 09:40	2024/06/25 11:55		2024/06/26 13:15			
COC Number		C#997904-01-01		C#997904-01-01	C#997904-01-01		C#997904-01-01			
	UNITS	BH201 DP2	QC Batch	BH201 DP4A	BH202 DP2	QC Batch	BH203 DP5	RDL	MDL	QC Batch
Inorganics										
Moisture	%	5.2	9490542	6.6	12	9487371	11	1.0	0.50	9487388

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZOZ497		ZOZ498		ZOZ499			
Sampling Date		2024/06/26 10:25		2024/06/26 10:35		2024/06/26 10:45			
COC Number		C#997904-01-01		C#997904-01-01		C#997904-01-01			
	UNITS	BH204 DP5	QC Batch	BH205 DP2	QC Batch	BH205 DP4	RDL	MDL	QC Batch
Inorganics									
Moisture	%	10	9487388	17	9487371	16	1.0	0.50	9487388

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas ID		ZOZ500		ZOZ501	ZOZ501		ZOZ502			
Sampling Date		2024/06/26 11:30		2024/06/26 11:45	2024/06/26 11:45		2024/06/26 11:30			
COC Number		C#997904-01-01		C#997904-01-01	C#997904-01-01		C#997904-01-01			
	UNITS	BH206 DP3	QC Batch	BH206 DP4	BH206 DP4 Lab-Dup	QC Batch	DUP 263	RDL	MDL	QC Batch
Inorganics										
Moisture	%	18	9487371	14	14	9487388	19	1.0	0.50	9487371

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZOZ503			
Sampling Date		2024/06/26 11:35			
COC Number		C#997904-01-01			
	UNITS	DUP 264	RDL	MDL	QC Batch
Inorganics					
Moisture	%	14	1.0	0.50	9487388

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID			ZOZ497			
Sampling Date			2024/06/26 10:25			
COC Number			C#997904-01-01			
	UNITS	Criteria	BH204 DP5	RDL	MDL	QC Batch
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	11	10	5.0	9487974
F3 (C16-C34 Hydrocarbons)	ug/g	300	55	50	5.0	9487974
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	10	9487974
Reached Baseline at C50	ug/g	-	Yes			9487974
Surrogate Recovery (%)						
o-Terphenyl	%	-	98			9487974

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: ZOZ493
Sample ID: BH201 DP2
Matrix: Soil

Collected: 2024/06/25
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9493095	2024/07/03	2024/07/05	Japneet Gill
Free (WAD) Cyanide	TECH	9492340	2024/07/03	2024/07/04	Prgya Panchal
Conductivity	AT	9493946	2024/07/04	2024/07/04	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9491197	2024/07/03	2024/07/03	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9492699	2024/07/03	2024/07/04	Daniel Teclu
Moisture	BAL	9490542	N/A	2024/07/02	Joe Thomas
pH CaCl2 EXTRACT	AT	9492590	2024/07/03	2024/07/03	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9489769	N/A	2024/07/04	Automated Statchk

Bureau Veritas ID: ZOZ494
Sample ID: BH201 DP4A
Matrix: Soil

Collected: 2024/06/25
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9487996	N/A	2024/07/02	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487371	N/A	2024/06/29	Jeremy Apoon

Bureau Veritas ID: ZOZ495
Sample ID: BH202 DP2
Matrix: Soil

Collected: 2024/06/25
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9491627	2024/07/03	2024/07/04	Jolly John
Free (WAD) Cyanide	TECH	9493818	2024/07/04	2024/07/04	Prgya Panchal
Conductivity	AT	9492171	2024/07/03	2024/07/03	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9488930	2024/07/02	2024/07/02	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9492232	2024/07/03	2024/07/03	Jaswinder Kaur
Moisture	BAL	9487371	N/A	2024/06/29	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9494035	2024/07/04	2024/07/04	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9487027	N/A	2024/07/04	Automated Statchk

Bureau Veritas ID: ZOZ496
Sample ID: BH203 DP5
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9487996	N/A	2024/07/02	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: ZOZ497
Sample ID: BH204 DP5
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9493396	N/A	2024/07/04	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas ID: ZOZ498
Sample ID: BH205 DP2
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9491627	2024/07/03	2024/07/04	Jolly John
Free (WAD) Cyanide	TECH	9493818	2024/07/04	2024/07/04	Prgya Panchal
Conductivity	AT	9492171	2024/07/03	2024/07/03	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9488930	2024/07/02	2024/07/02	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9492232	2024/07/03	2024/07/03	Jaswinder Kaur
Moisture	BAL	9487371	N/A	2024/06/29	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9494035	2024/07/04	2024/07/04	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9487027	N/A	2024/07/04	Automated Statchk

Bureau Veritas ID: ZOZ498 Dup
Sample ID: BH205 DP2
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9493818	2024/07/04	2024/07/04	Prgya Panchal
Hexavalent Chromium in Soil by IC	IC/SPEC	9488930	2024/07/02	2024/07/02	Sousan Besharatlou

Bureau Veritas ID: ZOZ499
Sample ID: BH205 DP4
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9487996	N/A	2024/07/02	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas ID: ZOZ499 Dup
Sample ID: BH205 DP4
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: ZOZ500
Sample ID: BH206 DP3
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9491627	2024/07/03	2024/07/04	Jolly John
Free (WAD) Cyanide	TECH	9493818	2024/07/04	2024/07/04	Prgya Panchal
Conductivity	AT	9492171	2024/07/03	2024/07/03	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9488930	2024/07/02	2024/07/02	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9492232	2024/07/03	2024/07/03	Jaswinder Kaur
Moisture	BAL	9487371	N/A	2024/06/29	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9494035	2024/07/04	2024/07/04	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9487027	N/A	2024/07/04	Automated Statchk

Bureau Veritas ID: ZOZ501
Sample ID: BH206 DP4
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9487996	N/A	2024/07/02	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas ID: ZOZ501 Dup
Sample ID: BH206 DP4
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas ID: ZOZ502
Sample ID: DUP 263
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9491627	2024/07/03	2024/07/04	Jolly John
Free (WAD) Cyanide	TECH	9493818	2024/07/04	2024/07/04	Prgya Panchal
Conductivity	AT	9493946	2024/07/04	2024/07/04	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9488930	2024/07/02	2024/07/02	Sousan Besharatlou
Acid Extractable Metals by ICPMS	ICP/MS	9492232	2024/07/03	2024/07/03	Jaswinder Kaur
Moisture	BAL	9487371	N/A	2024/06/29	Jeremy Apoon
pH CaCl2 EXTRACT	AT	9494035	2024/07/04	2024/07/04	Taslima Aktar
Sodium Adsorption Ratio (SAR)	CALC/MET	9487027	N/A	2024/07/04	Automated Statchk

Bureau Veritas ID: ZOZ503
Sample ID: DUP 264
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9487996	N/A	2024/07/02	Haibin Wu

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: ZOZ503
Sample ID: DUP 264
Matrix: Soil

Collected: 2024/06/26
Shipped:
Received: 2024/06/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9487974	2024/06/30	2024/07/01	Mohammed Abdul Nafay Shoeb
Moisture	BAL	9487388	N/A	2024/06/29	Muhammad Chhaidan

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

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

Package 1	8.0°C

Cooler custody seal present and intact.

Sample ZOZ494 [BH201 DP4A] : F1/BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample ZOZ496 [BH203 DP5] : F1/BTEX analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

QUALITY ASSURANCE REPORT

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9487974	o-Terphenyl	2024/07/01	100	60 - 130	99	60 - 130	102	%		
9487996	1,4-Difluorobenzene	2024/07/02	98	60 - 140	97	60 - 140	108	%		
9487996	4-Bromofluorobenzene	2024/07/02	99	60 - 140	100	60 - 140	87	%		
9487996	D10-o-Xylene	2024/07/02	107	60 - 140	87	60 - 140	104	%		
9487996	D4-1,2-Dichloroethane	2024/07/02	98	60 - 140	94	60 - 140	110	%		
9493396	1,4-Difluorobenzene	2024/07/04	97	60 - 140	95	60 - 140	101	%		
9493396	4-Bromofluorobenzene	2024/07/04	97	60 - 140	99	60 - 140	102	%		
9493396	D10-o-Xylene	2024/07/04	111	60 - 140	101	60 - 140	92	%		
9493396	D4-1,2-Dichloroethane	2024/07/04	108	60 - 140	110	60 - 140	114	%		
9487371	Moisture	2024/06/29							4.3	20
9487388	Moisture	2024/06/29							3.5	20
9487974	F2 (C10-C16 Hydrocarbons)	2024/07/01	102	60 - 130	99	80 - 120	<10	ug/g	NC	30
9487974	F3 (C16-C34 Hydrocarbons)	2024/07/01	104	60 - 130	101	80 - 120	<50	ug/g	NC	30
9487974	F4 (C34-C50 Hydrocarbons)	2024/07/01	98	60 - 130	96	80 - 120	<50	ug/g	NC	30
9487996	Benzene	2024/07/02	82	50 - 140	90	50 - 140	<0.020	ug/g	NC	50
9487996	Ethylbenzene	2024/07/02	92	50 - 140	101	50 - 140	<0.020	ug/g	NC	50
9487996	F1 (C6-C10) - BTEX	2024/07/02					<10	ug/g	NC	30
9487996	F1 (C6-C10)	2024/07/02	83	60 - 140	97	80 - 120	<10	ug/g	NC	30
9487996	o-Xylene	2024/07/02	88	50 - 140	96	50 - 140	<0.020	ug/g	NC	50
9487996	p+m-Xylene	2024/07/02	84	50 - 140	92	50 - 140	<0.040	ug/g	NC	50
9487996	Toluene	2024/07/02	80	50 - 140	88	50 - 140	<0.020	ug/g	NC	50
9487996	Total Xylenes	2024/07/02					<0.040	ug/g	NC	50
9488930	Chromium (VI)	2024/07/02	83	70 - 130	91	80 - 120	<0.18	ug/g	NC	35
9490542	Moisture	2024/07/02							0	20
9491197	Chromium (VI)	2024/07/03	46 (1)	70 - 130	91	80 - 120	<0.18	ug/g	NC	35
9491627	Hot Water Ext. Boron (B)	2024/07/04	122	75 - 125	105	75 - 125	<0.050	ug/g	2.8	40
9492171	Conductivity	2024/07/03			103	90 - 110	<0.002	mS/cm	2.9	10
9492232	Acid Extractable Antimony (Sb)	2024/07/03	97	75 - 125	104	80 - 120	<0.20	ug/g	0.76	30
9492232	Acid Extractable Arsenic (As)	2024/07/03	104	75 - 125	101	80 - 120	<1.0	ug/g	7.2	30
9492232	Acid Extractable Barium (Ba)	2024/07/03	NC	75 - 125	100	80 - 120	<0.50	ug/g	0.37	30
9492232	Acid Extractable Beryllium (Be)	2024/07/03	105	75 - 125	97	80 - 120	<0.20	ug/g	2.8	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9492232	Acid Extractable Boron (B)	2024/07/03	101	75 - 125	101	80 - 120	<5.0	ug/g	2.5	30
9492232	Acid Extractable Cadmium (Cd)	2024/07/03	106	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
9492232	Acid Extractable Chromium (Cr)	2024/07/03	100	75 - 125	97	80 - 120	<1.0	ug/g	0.34	30
9492232	Acid Extractable Cobalt (Co)	2024/07/03	100	75 - 125	97	80 - 120	<0.10	ug/g	1.9	30
9492232	Acid Extractable Copper (Cu)	2024/07/03	NC	75 - 125	100	80 - 120	<0.50	ug/g	0.92	30
9492232	Acid Extractable Lead (Pb)	2024/07/03	104	75 - 125	101	80 - 120	<1.0	ug/g	3.9	30
9492232	Acid Extractable Mercury (Hg)	2024/07/03	108	75 - 125	102	80 - 120	<0.050	ug/g		
9492232	Acid Extractable Molybdenum (Mo)	2024/07/03	100	75 - 125	96	80 - 120	<0.50	ug/g	NC	30
9492232	Acid Extractable Nickel (Ni)	2024/07/03	NC	75 - 125	100	80 - 120	<0.50	ug/g	0.38	30
9492232	Acid Extractable Selenium (Se)	2024/07/03	110	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
9492232	Acid Extractable Silver (Ag)	2024/07/03	104	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
9492232	Acid Extractable Thallium (Tl)	2024/07/03	105	75 - 125	102	80 - 120	<0.050	ug/g	5.0	30
9492232	Acid Extractable Uranium (U)	2024/07/03	107	75 - 125	101	80 - 120	<0.050	ug/g	0.53	30
9492232	Acid Extractable Vanadium (V)	2024/07/03	NC	75 - 125	100	80 - 120	<5.0	ug/g	0.70	30
9492232	Acid Extractable Zinc (Zn)	2024/07/03	NC	75 - 125	99	80 - 120	<5.0	ug/g	2.2	30
9492340	WAD Cyanide (Free)	2024/07/04	93	75 - 125	91	80 - 120	<0.01	ug/g	NC	35
9492590	Available (CaCl2) pH	2024/07/03			100	97 - 103			0.98	N/A
9492699	Acid Extractable Antimony (Sb)	2024/07/04	94	75 - 125	103	80 - 120	<0.20	ug/g		
9492699	Acid Extractable Arsenic (As)	2024/07/04	105	75 - 125	101	80 - 120	<1.0	ug/g	2.4	30
9492699	Acid Extractable Barium (Ba)	2024/07/04	NC	75 - 125	100	80 - 120	<0.50	ug/g		
9492699	Acid Extractable Beryllium (Be)	2024/07/04	104	75 - 125	96	80 - 120	<0.20	ug/g		
9492699	Acid Extractable Boron (B)	2024/07/04	97	75 - 125	96	80 - 120	<5.0	ug/g		
9492699	Acid Extractable Cadmium (Cd)	2024/07/04	102	75 - 125	98	80 - 120	<0.10	ug/g		
9492699	Acid Extractable Chromium (Cr)	2024/07/04	103	75 - 125	98	80 - 120	<1.0	ug/g		
9492699	Acid Extractable Cobalt (Co)	2024/07/04	105	75 - 125	99	80 - 120	<0.10	ug/g		
9492699	Acid Extractable Copper (Cu)	2024/07/04	103	75 - 125	100	80 - 120	<0.50	ug/g		
9492699	Acid Extractable Lead (Pb)	2024/07/04	NC	75 - 125	102	80 - 120	<1.0	ug/g		
9492699	Acid Extractable Mercury (Hg)	2024/07/04	112	75 - 125	101	80 - 120	<0.050	ug/g		
9492699	Acid Extractable Molybdenum (Mo)	2024/07/04	102	75 - 125	97	80 - 120	<0.50	ug/g		
9492699	Acid Extractable Nickel (Ni)	2024/07/04	105	75 - 125	101	80 - 120	<0.50	ug/g		
9492699	Acid Extractable Selenium (Se)	2024/07/04	104	75 - 125	97	80 - 120	<0.50	ug/g		

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9492699	Acid Extractable Silver (Ag)	2024/07/04	102	75 - 125	97	80 - 120	<0.20	ug/g		
9492699	Acid Extractable Thallium (Tl)	2024/07/04	105	75 - 125	100	80 - 120	<0.050	ug/g		
9492699	Acid Extractable Uranium (U)	2024/07/04	108	75 - 125	103	80 - 120	<0.050	ug/g	2.0	30
9492699	Acid Extractable Vanadium (V)	2024/07/04	104	75 - 125	99	80 - 120	<5.0	ug/g		
9492699	Acid Extractable Zinc (Zn)	2024/07/04	NC	75 - 125	101	80 - 120	<5.0	ug/g		
9493095	Hot Water Ext. Boron (B)	2024/07/05	111	75 - 125	106	75 - 125	<0.050	ug/g	NC	40
9493396	Benzene	2024/07/04	80	50 - 140	74	50 - 140	<0.020	ug/g	NC	50
9493396	Ethylbenzene	2024/07/04	92	50 - 140	85	50 - 140	<0.020	ug/g	NC	50
9493396	F1 (C6-C10) - BTEX	2024/07/04					<10	ug/g	NC	30
9493396	F1 (C6-C10)	2024/07/04	82	60 - 140	81	80 - 120	<10	ug/g	NC	30
9493396	o-Xylene	2024/07/04	92	50 - 140	85	50 - 140	<0.020	ug/g	NC	50
9493396	p+m-Xylene	2024/07/04	89	50 - 140	82	50 - 140	<0.040	ug/g	NC	50
9493396	Toluene	2024/07/04	79	50 - 140	73	50 - 140	<0.020	ug/g	NC	50
9493396	Total Xylenes	2024/07/04					<0.040	ug/g	NC	50
9493818	WAD Cyanide (Free)	2024/07/04	96	75 - 125	93	80 - 120	<0.01	ug/g	NC	35
9493946	Conductivity	2024/07/04			101	90 - 110	<0.002	mS/cm	0.94	10
9494035	Available (CaCl2) pH	2024/07/04			100	97 - 103			0.29	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.

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) 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 re-analyzed with the same results

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

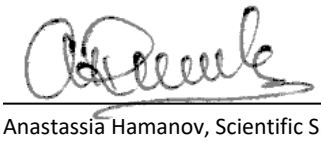
Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

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.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free 800-563-6266 Fax:(905) 817-5777 www.bvna.com

C NONT-2024-06-2842

Bottle Order #: 997904

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C35487
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:	
Address:	1 Banigan Drive Toronto ON M4H 1G3	Address:		Project:	22-282-203
				Project Name:	2072 LAKESHORE RD
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Site #:	
Email:	llevesque@groundedeng.ca	Email:	llevesque@groundedeng.ca	Sampled By:	

COC #: C#997904-01-01

Project Manager: Marjane Cruz

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☑ Table 3 ☐ Agri/Other ☑ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558. ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 Metals Package (Water)	O.Reg 153 PHCs, BTEX/F1-F4	O.Reg 153 PAHs	# of Bottles	Comments
1		BH201DP2	24/06/25	09:38	SOIL			X				1	
2		BH201DP4A	↓	09:40			X					3	
3		BH202DP2	24/06/25	11:55				X				1	
4		BH203DP5	24/06/26	13:15			X					3	
5		BH204DP5	↓	10:25			X					3	
6		BH205DP2		10:35				X				1	
7		BH205DP4		10:45			X					3	
8		BH206DP2		11:30				X				1	
9		BH206DP4		11:45			X					3	
10		DUP262	↓	11:30	↓			X				1	

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Michell Wong	24/06/26	15:56	SL SUGAVE SALVATI	2024/06/26	17:50	

Laboratory Use Only
Time Sensitive
Temperature (°C) on Recei: 5 / 9 / 10
Custody Seal Present: Yes ✓ Intact: No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

OH

ICE

Bureau Veritas Canada (2019) Inc.

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvna.com

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#36876 Grounded Engineering Inc.	Company Name:		Quotation #:	C35487	Bureau Veritas Job #:	Bottle Order #:
Attention:	Lindsy Levesque	Attention:	Lindsy Levesque	P.O. #:			997904
Address:	1 Banigan Drive Toronto ON M4H 1G3	Address:		Project:	22-282-203	COC #:	Project Manager:
Tel:	(647) 361-5254 Fax:	Tel:	(647) 361-5254 Fax:	Project Name:	2092 LAKESHORE RD	C#997904-02-01	Marijarie Cruz
Email:	llevesque@groundedeng.ca	Email:	llevesque@groundedeng.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☑ Table 3 ☐ Agri/Other ☑ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO ☐ Reg 406 Table ___
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 Metals Package (Water)	O.Reg 153 PHCs, BTEX/F1-F4	O.Reg 153 PAHs	# of Bottles	Comments
1		DUP 264	24/06/26	11:35	SOIL		X					3	
2													
3													
4													
5													
6													
7													
8													
9													
10													

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
Michell Wong	24/06/26	15:56	SEE PAGE 1						Present		
									Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

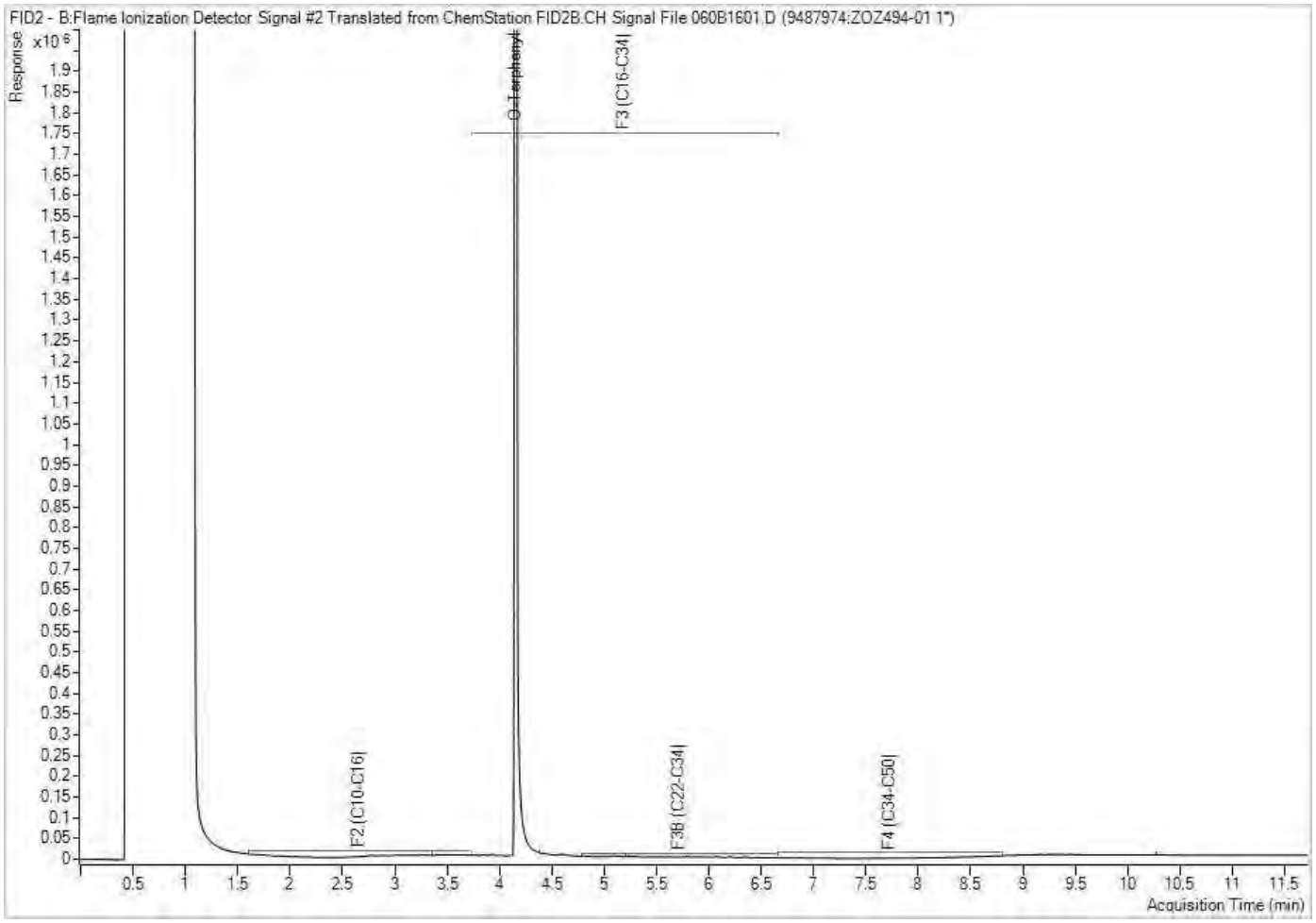
White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ494

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH201 DP4A

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

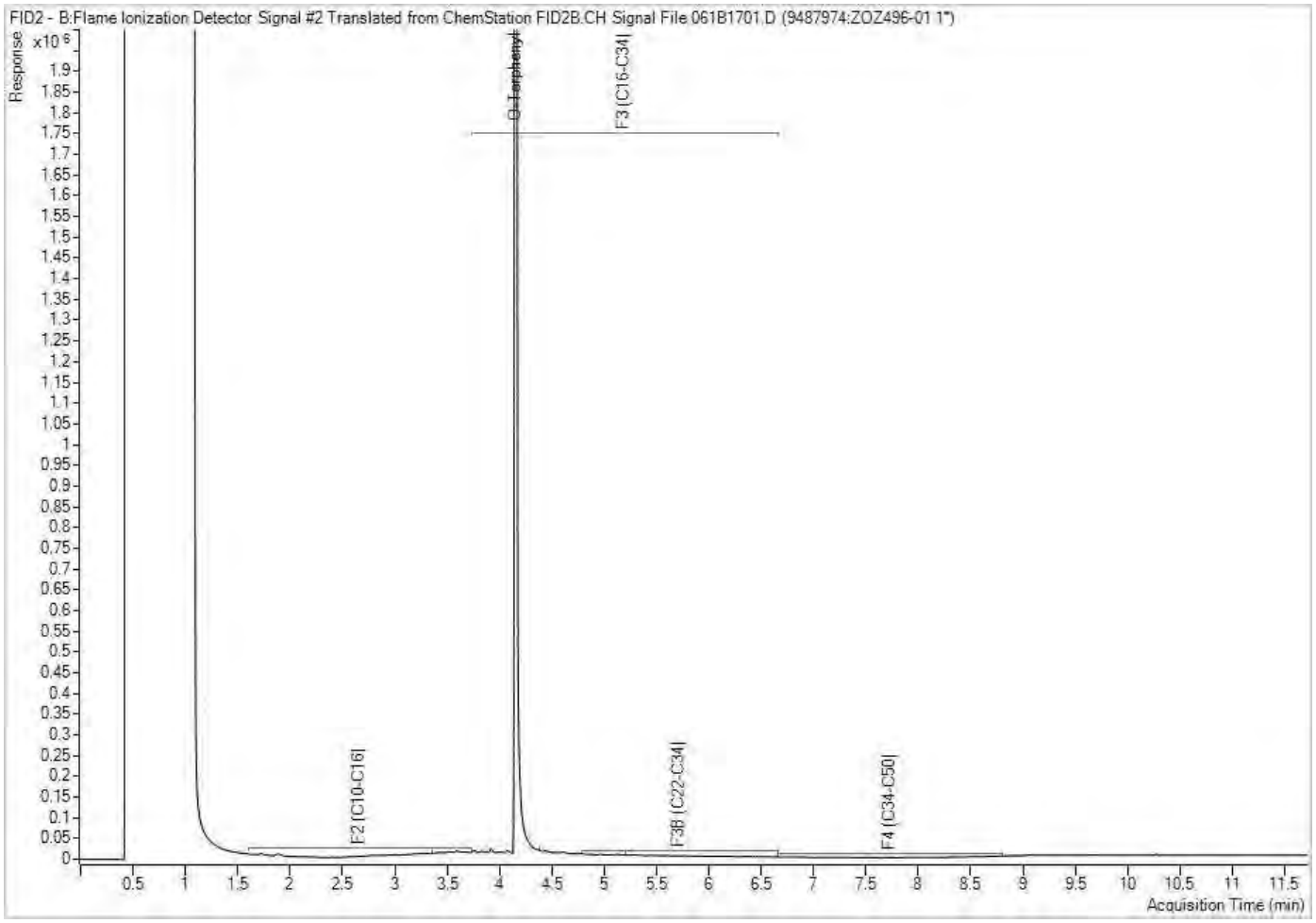


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ496

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH203 DP5

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

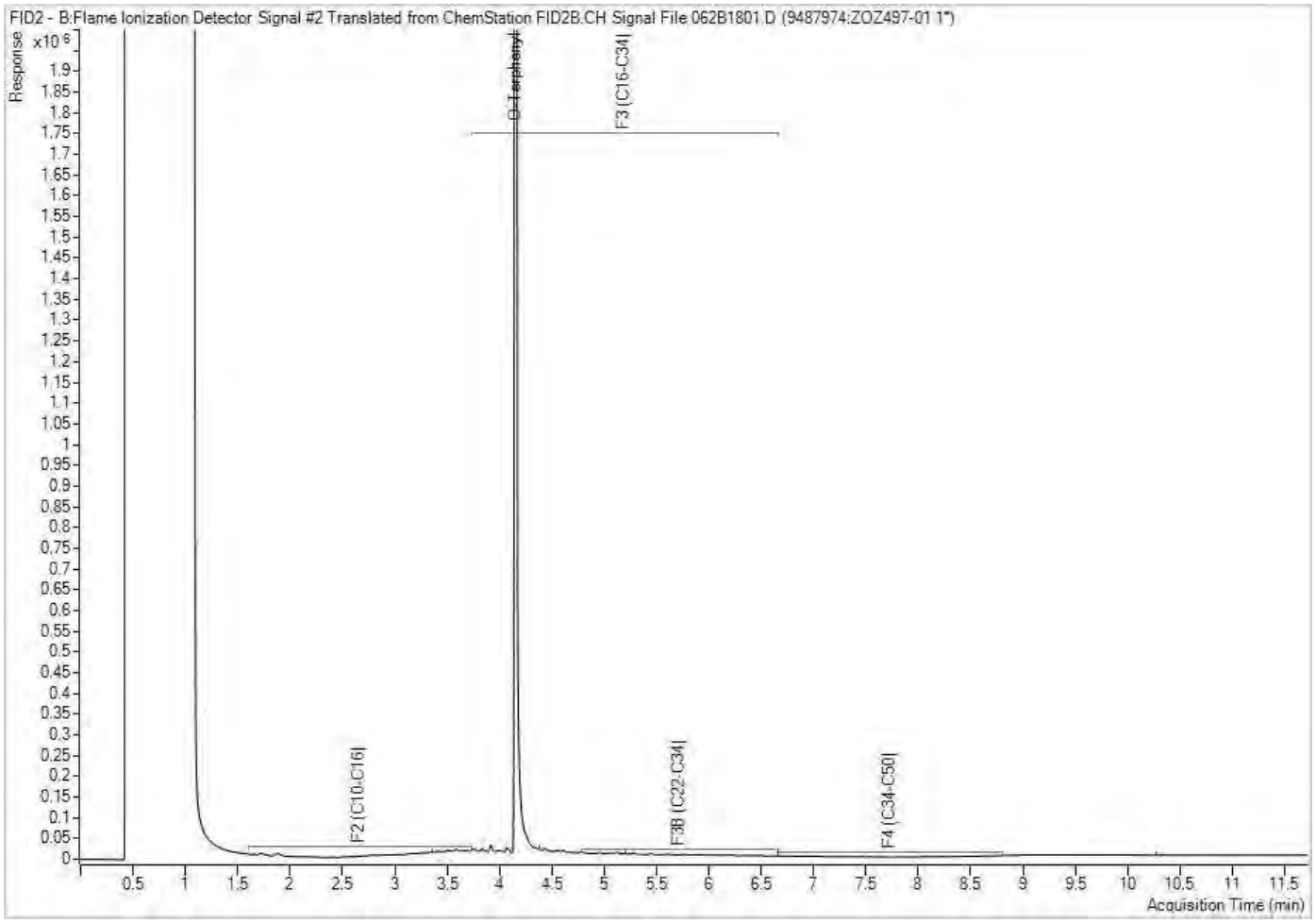


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ497

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH204 DP5

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

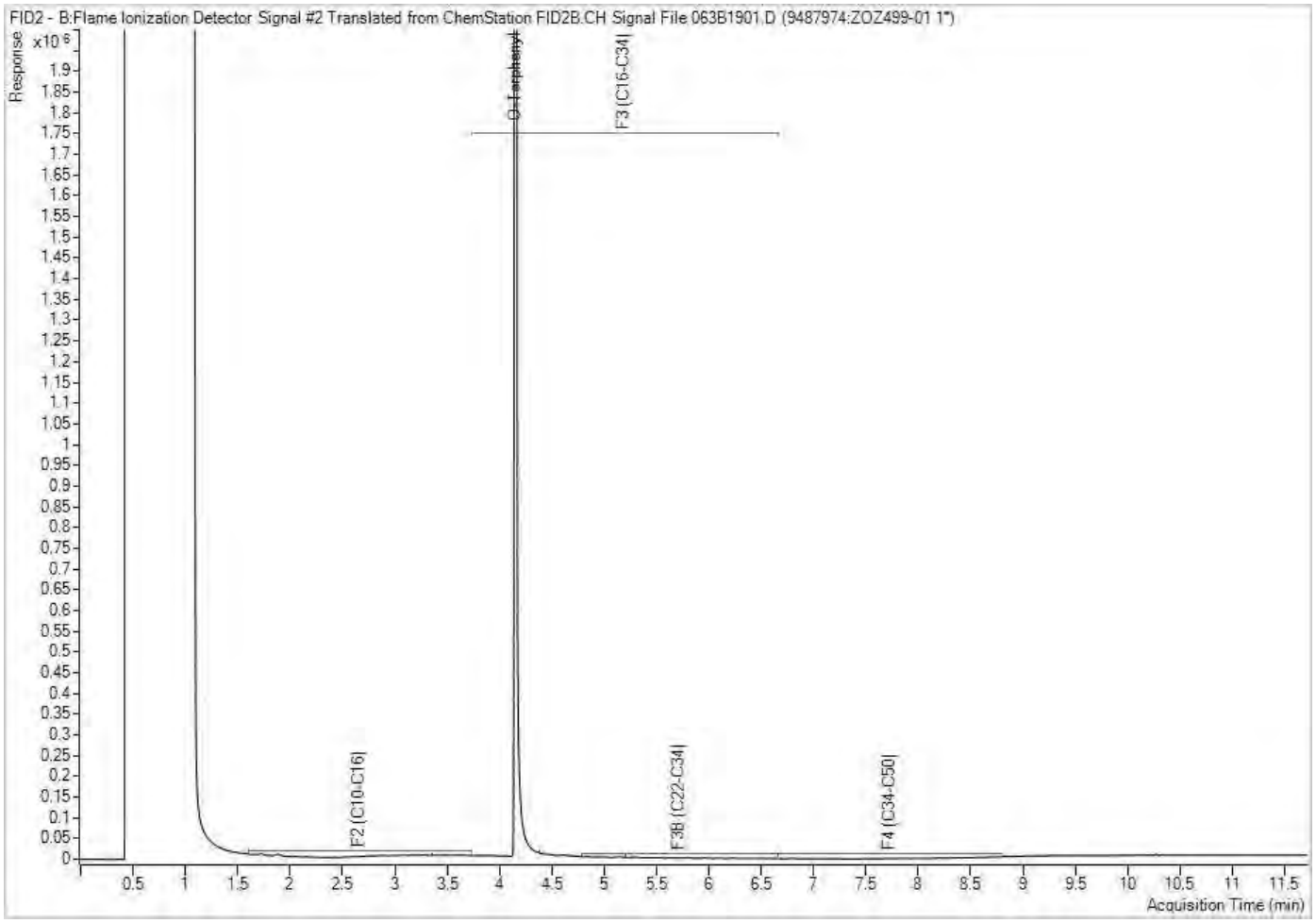


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ499

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH205 DP4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

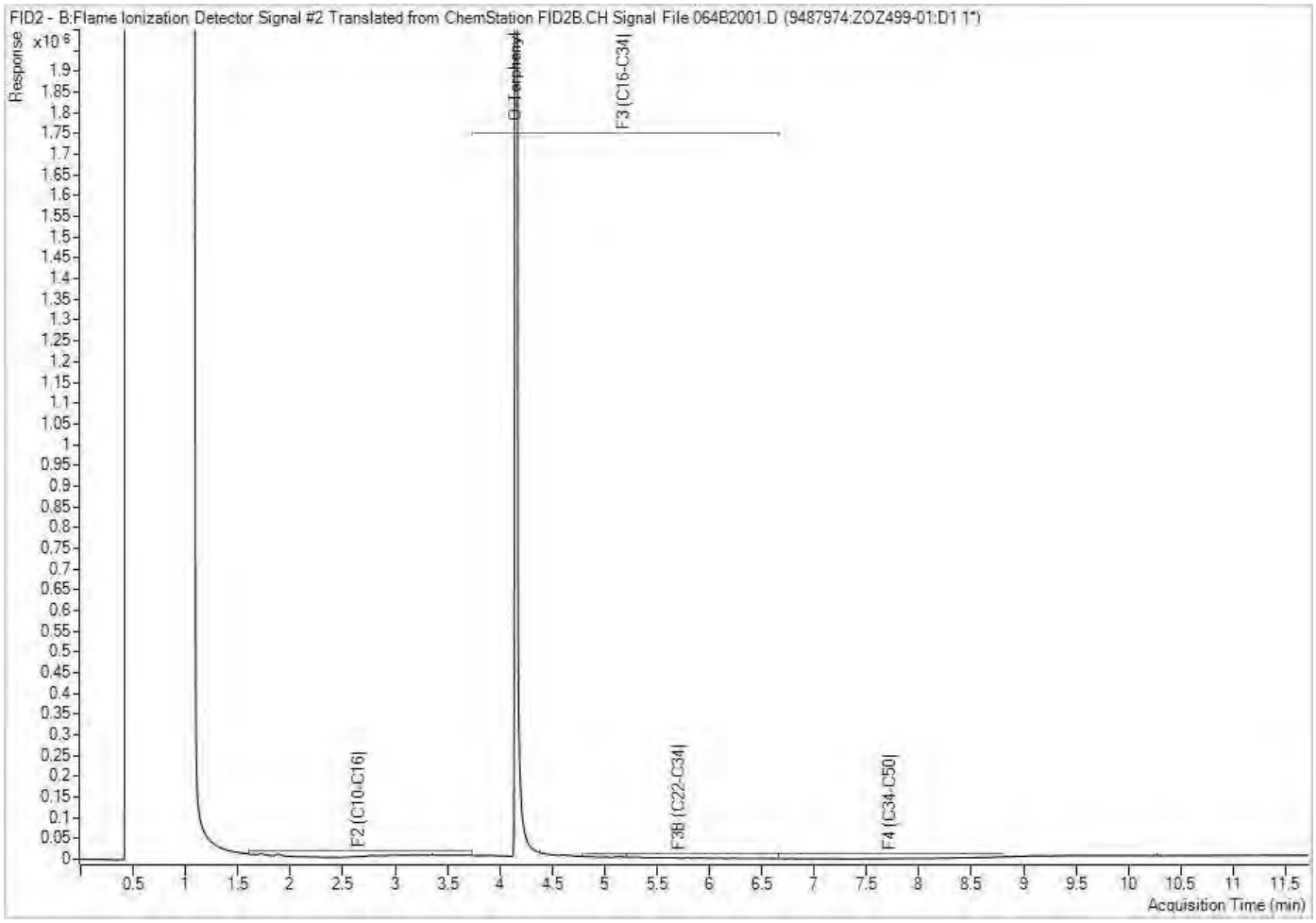


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ499 Lab-Dup

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH205 DP4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

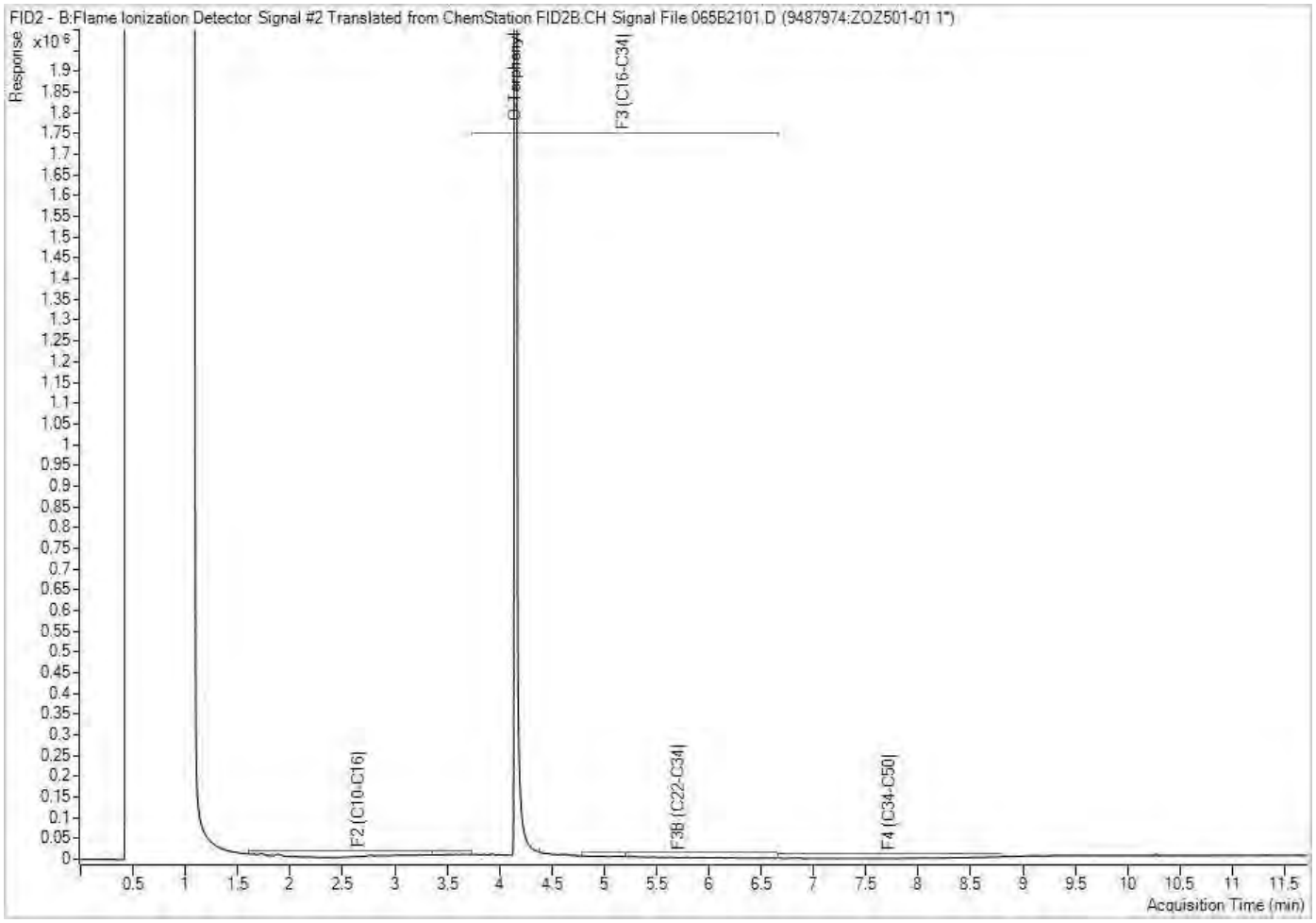


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ501

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: BH206 DP4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

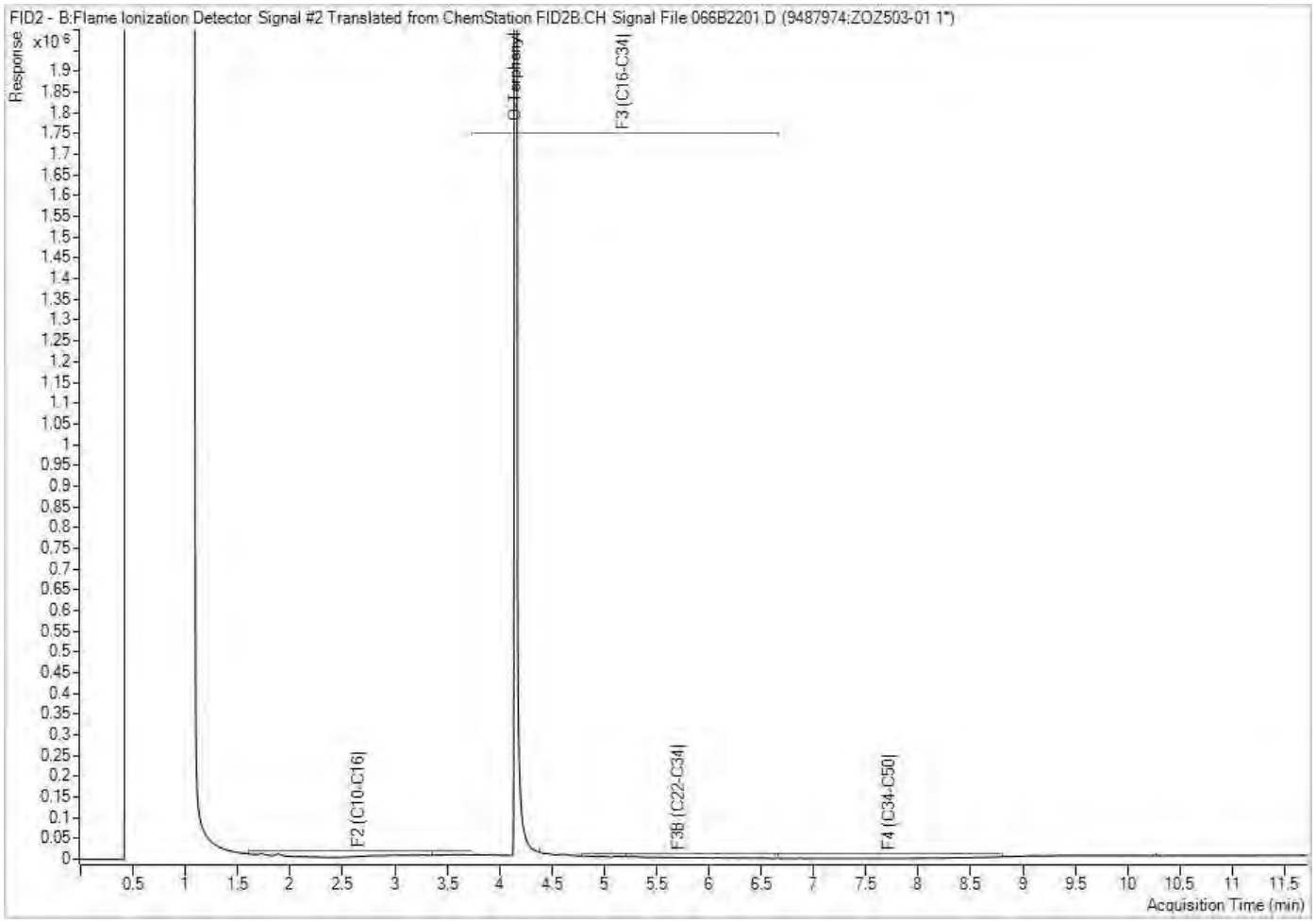


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05
Bureau Veritas Sample: ZOZ503

Grounded Engineering Inc.
Client Project #: 22-282-203
Project name: 2072 LAKESHORE ROAD
Client ID: DUP 264

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4J7649
Report Date: 2024/07/05

Grounded Engineering Inc.
Client Project #: 22-282-203
Site Location: 2072 LAKESHORE ROAD
Sampler Initials: MW

Exceedance Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedances

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH201 DP2	ZOZ493-01	Sodium Adsorption Ratio	5.0	8.0		N/A
BH201 DP2	ZOZ493-01	Acid Extractable Zinc (Zn)	340	660	5.0	ug/g

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Your Project #: 22-282-203
Your C.O.C. #: N/A

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2024/07/09
Report #: R8226255
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K2462
Received: 2024/07/03, 16:45

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2024/07/08	CAM SOP-00301	EPA 8270D m
Chromium (VI) in Water	4	N/A	2024/07/05	CAM SOP-00436	EPA 7199 m
Petroleum Hydro. CCME F1 & BTEX in Water	4	N/A	2024/07/06	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	4	2024/07/07	2024/07/07	CAM SOP-00316	CCME PHC-CWS m
Mercury	4	2024/07/08	2024/07/08	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	4	N/A	2024/07/05	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	4	2024/07/07	2024/07/07	CAM SOP-00318	EPA 8270E

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.
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) 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

Your Project #: 22-282-203
Your C.O.C. #: N/A

Attention: Lindsy Levesque

Grounded Engineering Inc.
1 Banigan Drive
Toronto, ON
CANADA M4H 1G3

Report Date: 2024/07/09
Report #: R8226255
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4K2462
Received: 2024/07/03, 16:45

reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Marijane Cruz, Senior Project Manager
Email: Marijane.Cruz@bureauveritas.com
Phone# (905)817-5756

==========

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.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09

Grounded Engineering Inc.
Client Project #: 22-282-203
Sampler Initials: MW

O.REG 153 METALS PACKAGE (WATER)

Bureau Veritas ID			ZPZ464			ZPZ465			ZPZ466			
Sampling Date			2024/07/02 13:20			2024/07/03 10:55			2024/07/03 12:55			
COC Number			N/A			N/A			N/A			
	UNITS	Criteria	BH202	RDL	MDL	BH PIN-MW01	RDL	MDL	BH PIN-MW03	RDL	MDL	QC Batch
Metals												
Chromium (VI)	ug/L	140	<0.50	0.50	0.30	1.1	0.50	0.30	<1.0 (1)	1.0	0.60	9496694
Mercury (Hg)	ug/L	0.29	<0.10	0.10	0.020	<0.10	0.10	0.020	<0.10	0.10	0.020	9500580
Dissolved Antimony (Sb)	ug/L	20000	<0.50	0.50	0.50	<0.50	0.50	0.50	<0.50	0.50	0.50	9497241
Dissolved Arsenic (As)	ug/L	1900	1.3	1.0	1.0	<1.0	1.0	1.0	<1.0	1.0	1.0	9497241
Dissolved Barium (Ba)	ug/L	29000	43	2.0	2.0	65	2.0	2.0	220	2.0	2.0	9497241
Dissolved Beryllium (Be)	ug/L	67	<0.40	0.40	0.40	<0.40	0.40	0.40	<0.40	0.40	0.40	9497241
Dissolved Boron (B)	ug/L	45000	1000	10	10	59	10	10	76	10	10	9497241
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	0.090	0.090	0.15	0.090	0.090	1.3	0.090	0.090	9497241
Dissolved Chromium (Cr)	ug/L	810	<5.0	5.0	5.0	<5.0	5.0	5.0	<5.0	5.0	5.0	9497241
Dissolved Cobalt (Co)	ug/L	66	<0.50	0.50	0.50	<0.50	0.50	0.50	<0.50	0.50	0.50	9497241
Dissolved Copper (Cu)	ug/L	87	<0.90	0.90	0.90	3.7	0.90	0.90	3.2	0.90	0.90	9497241
Dissolved Lead (Pb)	ug/L	25	<0.50	0.50	0.50	<0.50	0.50	0.50	<0.50	0.50	0.50	9497241
Dissolved Molybdenum (Mo)	ug/L	9200	7.2	0.50	0.50	7.0	0.50	0.50	3.6	0.50	0.50	9497241
Dissolved Nickel (Ni)	ug/L	490	<1.0	1.0	1.0	<1.0	1.0	1.0	1.2	1.0	1.0	9497241
Dissolved Selenium (Se)	ug/L	63	<2.0	2.0	2.0	3.5	2.0	2.0	<2.0	2.0	2.0	9497241
Dissolved Silver (Ag)	ug/L	1.5	<0.090	0.090	0.090	<0.090	0.090	0.090	<0.090	0.090	0.090	9497241
Dissolved Sodium (Na)	ug/L	2300000	170000	100	100	790000	500	500	**3200000**	1000	1000	9497241
Dissolved Thallium (Tl)	ug/L	510	<0.050	0.050	0.050	<0.050	0.050	0.050	0.090	0.050	0.050	9497241
Dissolved Uranium (U)	ug/L	420	4.9	0.10	0.10	2.8	0.10	0.10	1.5	0.10	0.10	9497241
Dissolved Vanadium (V)	ug/L	250	<0.50	0.50	0.50	<0.50	0.50	0.50	<0.50	0.50	0.50	9497241
Dissolved Zinc (Zn)	ug/L	1100	<5.0	5.0	5.0	23	5.0	5.0	66	5.0	5.0	9497241

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil
(1) Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 153 METALS PACKAGE (WATER)

Bureau Veritas ID			ZPZ467			
Sampling Date			2024/07/02 13:20			
COC Number			N/A			
	UNITS	Criteria	DUP22	RDL	MDL	QC Batch
Metals						
Chromium (VI)	ug/L	140	<0.50	0.50	0.30	9496694
Mercury (Hg)	ug/L	0.29	<0.10	0.10	0.020	9500580
Dissolved Antimony (Sb)	ug/L	20000	<0.50	0.50	0.50	9497241
Dissolved Arsenic (As)	ug/L	1900	1.2	1.0	1.0	9497241
Dissolved Barium (Ba)	ug/L	29000	44	2.0	2.0	9497241
Dissolved Beryllium (Be)	ug/L	67	<0.40	0.40	0.40	9497241
Dissolved Boron (B)	ug/L	45000	1000	10	10	9497241
Dissolved Cadmium (Cd)	ug/L	2.7	<0.090	0.090	0.090	9497241
Dissolved Chromium (Cr)	ug/L	810	<5.0	5.0	5.0	9497241
Dissolved Cobalt (Co)	ug/L	66	<0.50	0.50	0.50	9497241
Dissolved Copper (Cu)	ug/L	87	<0.90	0.90	0.90	9497241
Dissolved Lead (Pb)	ug/L	25	<0.50	0.50	0.50	9497241
Dissolved Molybdenum (Mo)	ug/L	9200	7.1	0.50	0.50	9497241
Dissolved Nickel (Ni)	ug/L	490	<1.0	1.0	1.0	9497241
Dissolved Selenium (Se)	ug/L	63	<2.0	2.0	2.0	9497241
Dissolved Silver (Ag)	ug/L	1.5	<0.090	0.090	0.090	9497241
Dissolved Sodium (Na)	ug/L	2300000	180000	100	100	9497241
Dissolved Thallium (Tl)	ug/L	510	<0.050	0.050	0.050	9497241
Dissolved Uranium (U)	ug/L	420	4.7	0.10	0.10	9497241
Dissolved Vanadium (V)	ug/L	250	<0.50	0.50	0.50	9497241
Dissolved Zinc (Zn)	ug/L	1100	<5.0	5.0	5.0	9497241

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

O.REG 153 PAHS (WATER)

Bureau Veritas ID			ZPZ464	ZPZ465	ZPZ466	ZPZ467			
Sampling Date			2024/07/02 13:20	2024/07/03 10:55	2024/07/03 12:55	2024/07/02 13:20			
COC Number			N/A	N/A	N/A	N/A			
	UNITS	Criteria	BH202	BH PIN-MW01	BH PIN-MW03	DUP22	RDL	MDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/L	1800	<0.071	<0.071	<0.071	<0.071	0.071	N/A	9492128
Polyaromatic Hydrocarbons									
Acenaphthene	ug/L	600	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Acenaphthylene	ug/L	1.8	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Anthracene	ug/L	2.4	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Benzo(a)anthracene	ug/L	4.7	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Benzo(a)pyrene	ug/L	0.81	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	0.0030	9499778
Benzo(b/j)fluoranthene	ug/L	0.75	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Benzo(k)fluoranthene	ug/L	0.4	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Chrysene	ug/L	1	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Dibenzo(a,h)anthracene	ug/L	0.52	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Fluoranthene	ug/L	130	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Fluorene	ug/L	400	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
1-Methylnaphthalene	ug/L	1800	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
2-Methylnaphthalene	ug/L	1800	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Naphthalene	ug/L	1400	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Phenanthrene	ug/L	580	<0.030	<0.030	<0.030	<0.030	0.030	0.0030	9499778
Pyrene	ug/L	68	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9499778
Surrogate Recovery (%)									
D10-Anthracene	%	-	112	113	109	110			9499778
D14-Terphenyl (FS)	%	-	106	106	83	104			9499778
D8-Acenaphthylene	%	-	102	101	98	100			9499778

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil
N/A = Not Applicable

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

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

Bureau Veritas ID			ZPZ464	ZPZ465	ZPZ466	ZPZ467			
Sampling Date			2024/07/02 13:20	2024/07/03 10:55	2024/07/03 12:55	2024/07/02 13:20			
COC Number			N/A	N/A	N/A	N/A			
	UNITS	Criteria	BH202	BH PIN-MW01	BH PIN-MW03	DUP22	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons									
Benzene	ug/L	44	<0.20	<0.20	<0.20	<0.20	0.20	0.040	9498462
Toluene	ug/L	18000	<0.20	<0.20	<0.20	<0.20	0.20	0.040	9498462
Ethylbenzene	ug/L	2300	<0.20	<0.20	<0.20	<0.20	0.20	0.040	9498462
o-Xylene	ug/L	-	<0.20	<0.20	<0.20	<0.20	0.20	0.040	9498462
p+m-Xylene	ug/L	-	<0.40	<0.40	<0.40	<0.40	0.40	0.080	9498462
Total Xylenes	ug/L	4200	<0.40	<0.40	<0.40	<0.40	0.40	0.080	9498462
F1 (C6-C10)	ug/L	750	<25	<25	<25	<25	25	20	9498462
F1 (C6-C10) - BTEX	ug/L	750	<25	<25	<25	<25	25	20	9498462
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	<100	<100	100	50	9499787
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	<200	<200	200	70	9499787
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	<200	<200	200	50	9499787
Reached Baseline at C50	ug/L	-	Yes	Yes	Yes	Yes			9499787
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	-	104	102	101	104			9498462
4-Bromofluorobenzene	%	-	83	90	91	92			9498462
D10-o-Xylene	%	-	102	101	103	101			9498462
D4-1,2-Dichloroethane	%	-	99	97	99	100			9498462
o-Terphenyl	%	-	102	100	102	101			9499787

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

TEST SUMMARY

Bureau Veritas ID: ZPZ464 **Collected:** 2024/07/02
Sample ID: BH202 **Shipped:**
Matrix: Water **Received:** 2024/07/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9492128	N/A	2024/07/08	Automated Statchk
Chromium (VI) in Water	IC	9496694	N/A	2024/07/05	Surleen Kaur Romana
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9498462	N/A	2024/07/06	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9499787	2024/07/07	2024/07/07	Mohammed Abdul Nafay Shoeb
Mercury	CV/AA	9500580	2024/07/08	2024/07/08	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9497241	N/A	2024/07/05	Thuy Linh Nguyen
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9499778	2024/07/07	2024/07/07	Jett Wu

Bureau Veritas ID: ZPZ465 **Collected:** 2024/07/03
Sample ID: BH PIN-MW01 **Shipped:**
Matrix: Water **Received:** 2024/07/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9492128	N/A	2024/07/08	Automated Statchk
Chromium (VI) in Water	IC	9496694	N/A	2024/07/05	Surleen Kaur Romana
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9498462	N/A	2024/07/06	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9499787	2024/07/07	2024/07/07	Mohammed Abdul Nafay Shoeb
Mercury	CV/AA	9500580	2024/07/08	2024/07/08	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9497241	N/A	2024/07/05	Thuy Linh Nguyen
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9499778	2024/07/07	2024/07/07	Jett Wu

Bureau Veritas ID: ZPZ466 **Collected:** 2024/07/03
Sample ID: BH PIN-MW03 **Shipped:**
Matrix: Water **Received:** 2024/07/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9492128	N/A	2024/07/08	Automated Statchk
Chromium (VI) in Water	IC	9496694	N/A	2024/07/05	Surleen Kaur Romana
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9498462	N/A	2024/07/06	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9499787	2024/07/07	2024/07/07	Mohammed Abdul Nafay Shoeb
Mercury	CV/AA	9500580	2024/07/08	2024/07/08	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9497241	N/A	2024/07/05	Thuy Linh Nguyen
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9499778	2024/07/07	2024/07/07	Jett Wu

Bureau Veritas ID: ZPZ467 **Collected:** 2024/07/02
Sample ID: DUP22 **Shipped:**
Matrix: Water **Received:** 2024/07/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9492128	N/A	2024/07/08	Automated Statchk
Chromium (VI) in Water	IC	9496694	N/A	2024/07/05	Surleen Kaur Romana
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9498462	N/A	2024/07/06	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9499787	2024/07/07	2024/07/07	Mohammed Abdul Nafay Shoeb
Mercury	CV/AA	9500580	2024/07/08	2024/07/08	Aswathy Neduveli Suresh
Dissolved Metals by ICPMS	ICP/MS	9497241	N/A	2024/07/05	Thuy Linh Nguyen

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09

Grounded Engineering Inc.
Client Project #: 22-282-203
Sampler Initials: MW

TEST SUMMARY

Bureau Veritas ID: ZPZ467
Sample ID: DUP22
Matrix: Water

Collected: 2024/07/02
Shipped:
Received: 2024/07/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9499778	2024/07/07	2024/07/07	Jett Wu

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

GENERAL COMMENTS

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

Package 1	5.0°C

Cooler custody seal present and intact.

Results relate only to the items tested.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9498462	1,4-Difluorobenzene	2024/07/06	99	70 - 130	96	70 - 130	101	%		
9498462	4-Bromofluorobenzene	2024/07/06	97	70 - 130	98	70 - 130	94	%		
9498462	D10-o-Xylene	2024/07/06	105	70 - 130	101	70 - 130	98	%		
9498462	D4-1,2-Dichloroethane	2024/07/06	94	70 - 130	89	70 - 130	97	%		
9499778	D10-Anthracene	2024/07/07	112	50 - 130	110	50 - 130	111	%		
9499778	D14-Terphenyl (FS)	2024/07/07	82	50 - 130	106	50 - 130	111	%		
9499778	D8-Acenaphthylene	2024/07/07	104	50 - 130	97	50 - 130	97	%		
9499787	o-Terphenyl	2024/07/07	101	60 - 140	105	60 - 140	102	%		
9496694	Chromium (VI)	2024/07/05	100	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
9497241	Dissolved Antimony (Sb)	2024/07/05	107	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9497241	Dissolved Arsenic (As)	2024/07/05	101	80 - 120	98	80 - 120	<1.0	ug/L	1.6	20
9497241	Dissolved Barium (Ba)	2024/07/05	100	80 - 120	101	80 - 120	<2.0	ug/L	0.45	20
9497241	Dissolved Beryllium (Be)	2024/07/05	101	80 - 120	99	80 - 120	<0.40	ug/L	NC	20
9497241	Dissolved Boron (B)	2024/07/05	NC	80 - 120	97	80 - 120	<10	ug/L	2.2	20
9497241	Dissolved Cadmium (Cd)	2024/07/05	100	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
9497241	Dissolved Chromium (Cr)	2024/07/05	95	80 - 120	91	80 - 120	<5.0	ug/L	NC	20
9497241	Dissolved Cobalt (Co)	2024/07/05	100	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
9497241	Dissolved Copper (Cu)	2024/07/05	105	80 - 120	98	80 - 120	<0.90	ug/L	NC	20
9497241	Dissolved Lead (Pb)	2024/07/05	91	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
9497241	Dissolved Molybdenum (Mo)	2024/07/05	106	80 - 120	100	80 - 120	<0.50	ug/L	1.3	20
9497241	Dissolved Nickel (Ni)	2024/07/05	95	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
9497241	Dissolved Selenium (Se)	2024/07/05	98	80 - 120	100	80 - 120	<2.0	ug/L	NC	20
9497241	Dissolved Silver (Ag)	2024/07/05	91	80 - 120	94	80 - 120	<0.090	ug/L	NC	20
9497241	Dissolved Sodium (Na)	2024/07/05	NC	80 - 120	96	80 - 120	<100	ug/L	0.41	20
9497241	Dissolved Thallium (Tl)	2024/07/05	96	80 - 120	100	80 - 120	<0.050	ug/L	NC	20
9497241	Dissolved Uranium (U)	2024/07/05	99	80 - 120	103	80 - 120	<0.10	ug/L	0.41	20
9497241	Dissolved Vanadium (V)	2024/07/05	99	80 - 120	93	80 - 120	<0.50	ug/L	6.1	20
9497241	Dissolved Zinc (Zn)	2024/07/05	92	80 - 120	95	80 - 120	<5.0	ug/L	NC	20
9498462	Benzene	2024/07/06	91	50 - 140	84	50 - 140	<0.20	ug/L	NC	30
9498462	Ethylbenzene	2024/07/06	98	50 - 140	100	50 - 140	<0.20	ug/L	NC	30
9498462	F1 (C6-C10) - BTEX	2024/07/06					<25	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9498462	F1 (C6-C10)	2024/07/06	98	60 - 140	98	60 - 140	<25	ug/L	NC	30
9498462	o-Xylene	2024/07/06	93	50 - 140	94	50 - 140	<0.20	ug/L	NC	30
9498462	p+m-Xylene	2024/07/06	88	50 - 140	90	50 - 140	<0.40	ug/L	NC	30
9498462	Toluene	2024/07/06	86	50 - 140	87	50 - 140	<0.20	ug/L	NC	30
9498462	Total Xylenes	2024/07/06					<0.40	ug/L	NC	30
9499778	1-Methylnaphthalene	2024/07/07	112	50 - 130	106	50 - 130	<0.050	ug/L	NC	30
9499778	2-Methylnaphthalene	2024/07/07	105	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
9499778	Acenaphthene	2024/07/07	105	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9499778	Acenaphthylene	2024/07/07	106	50 - 130	101	50 - 130	<0.050	ug/L	NC	30
9499778	Anthracene	2024/07/07	114	50 - 130	112	50 - 130	<0.050	ug/L	NC	30
9499778	Benzo(a)anthracene	2024/07/07	106	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
9499778	Benzo(a)pyrene	2024/07/07	102	50 - 130	111	50 - 130	<0.0090	ug/L	NC	30
9499778	Benzo(b/j)fluoranthene	2024/07/07	103	50 - 130	111	50 - 130	<0.050	ug/L	NC	30
9499778	Benzo(g,h,i)perylene	2024/07/07	81	50 - 130	86	50 - 130	<0.050	ug/L	NC	30
9499778	Benzo(k)fluoranthene	2024/07/07	104	50 - 130	109	50 - 130	<0.050	ug/L	NC	30
9499778	Chrysene	2024/07/07	108	50 - 130	109	50 - 130	<0.050	ug/L	NC	30
9499778	Dibenzo(a,h)anthracene	2024/07/07	79	50 - 130	81	50 - 130	<0.050	ug/L	NC	30
9499778	Fluoranthene	2024/07/07	111	50 - 130	117	50 - 130	<0.050	ug/L	NC	30
9499778	Fluorene	2024/07/07	109	50 - 130	105	50 - 130	<0.050	ug/L	NC	30
9499778	Indeno(1,2,3-cd)pyrene	2024/07/07	87	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
9499778	Naphthalene	2024/07/07	94	50 - 130	90	50 - 130	<0.050	ug/L	NC	30
9499778	Phenanthrene	2024/07/07	113	50 - 130	111	50 - 130	<0.030	ug/L	NC	30
9499778	Pyrene	2024/07/07	110	50 - 130	117	50 - 130	<0.050	ug/L	NC	30
9499787	F2 (C10-C16 Hydrocarbons)	2024/07/07	110	60 - 140	114	60 - 140	<100	ug/L	NC	30
9499787	F3 (C16-C34 Hydrocarbons)	2024/07/07	115	60 - 140	121	60 - 140	<200	ug/L	NC	30
9499787	F4 (C34-C50 Hydrocarbons)	2024/07/07	102	60 - 140	107	60 - 140	<200	ug/L	NC	30

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9500580	Mercury (Hg)	2024/07/08	91	75 - 125	94	80 - 120	<0.10	ug/L	NC	20

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).

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

VALIDATION SIGNATURE PAGE

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

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

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.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.

www.BVNA.com

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

CHAIN OF CUSTODY RECORD

ENV COC - 00014v5

NONT-2024-07-264

Invoice Information	Invoice to (requires report) ☑	Report Information (if differs from invoice)		Project Information	
Company:	GROUNDED ENGINEERING INC	Company:		Quotation #:	
Contact Name:	LINDSY LEVESQUE	Contact Name:		P.O. #/ AFE#:	
Street Address:	1 BANGAN DR	Street Address:		Project #:	
City:	TORONTO Prov: ON Postal Code: M4H1G7	City:	Prov: Postal Code:	Site #:	
Phone:	647-361-5254	Phone:		Site Location:	
Email:	llevesque@groundedeng.ca	Email:		Site Location Province:	
Copies:		Copies:		Sampled By:	

Regulatory Criteria

REG 153: ☐ Table 1 ☑ Table 2 ☐ Table 3 ☐ Table _____ | ☒ Res/Park ☐ Ind/Comm ☐ Agri/other | ☐ Med/Fine ☐ Coarse ☑ For RSC

OTHER: ☐ CCME ☐ Reg 558* ☐ MISA ☐ PWQO | ☐ Reg 406, Table: _____ ☐ Sanitary Sewer Bylaw ☐ Storm Sewer Bylaw Municipality _____ ☐ Other: | *min 3 day TAT

Include Criteria on Certificate of Analysis (check if yes): ☐

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Identification (Please print or Type)	Date Sampled YYYY	MM	DD	Time (24hr) HH	MM	Matrix	1 FIELD FILTERED	2 FIELD PRESERVED	3 LAB FILTRATION REQUIRED	4 BTEX/ F1 (O.Reg 153)	5 PHC (O.Reg 153)	6 VOCs	7 Reg 153 metals and inorganics	8 Reg 153 ICPMS metals	9 Reg 153 metals (Hg, Cr VI, ICPMS metals, HWS - B)	10 O.Reg 153 PAH	11	12	13	14	15	16	17	18	19	20	21 # OF CONTAINERS SUBMITTED	22 HOLD - DO NOT ANALYZE
1	BH202	2024	07	02	13	20	GW	X			X	X		X			X										7	
2	BH PIN-MW01	2024	07	03	10	55		X			X	X		X			X										7	
3	BH PIN-MW03	2024	07	03	12	55		X			X	X		X			X										7	
4	DUP22	2024	07	02	13	20		X			X	X		X			X										7	
5																												
6																												
7																												
8																												
9																												
10																												
11																												
12																												

Regular Turnaround Time (TAT)

☑ 5 to 7 Day ☐ 10 Day

Rush Turnaround Time (TAT) Surcharges apply

☐ Same Day ☐ 1 Day ☐ 2 Day ☐ 3 Day ☐ 4 Day

Date Required: YYYY MM DD

Comments

*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present	✓		6			
Seal intact	✓		5			
Cooling media present			4			

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present						

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present						

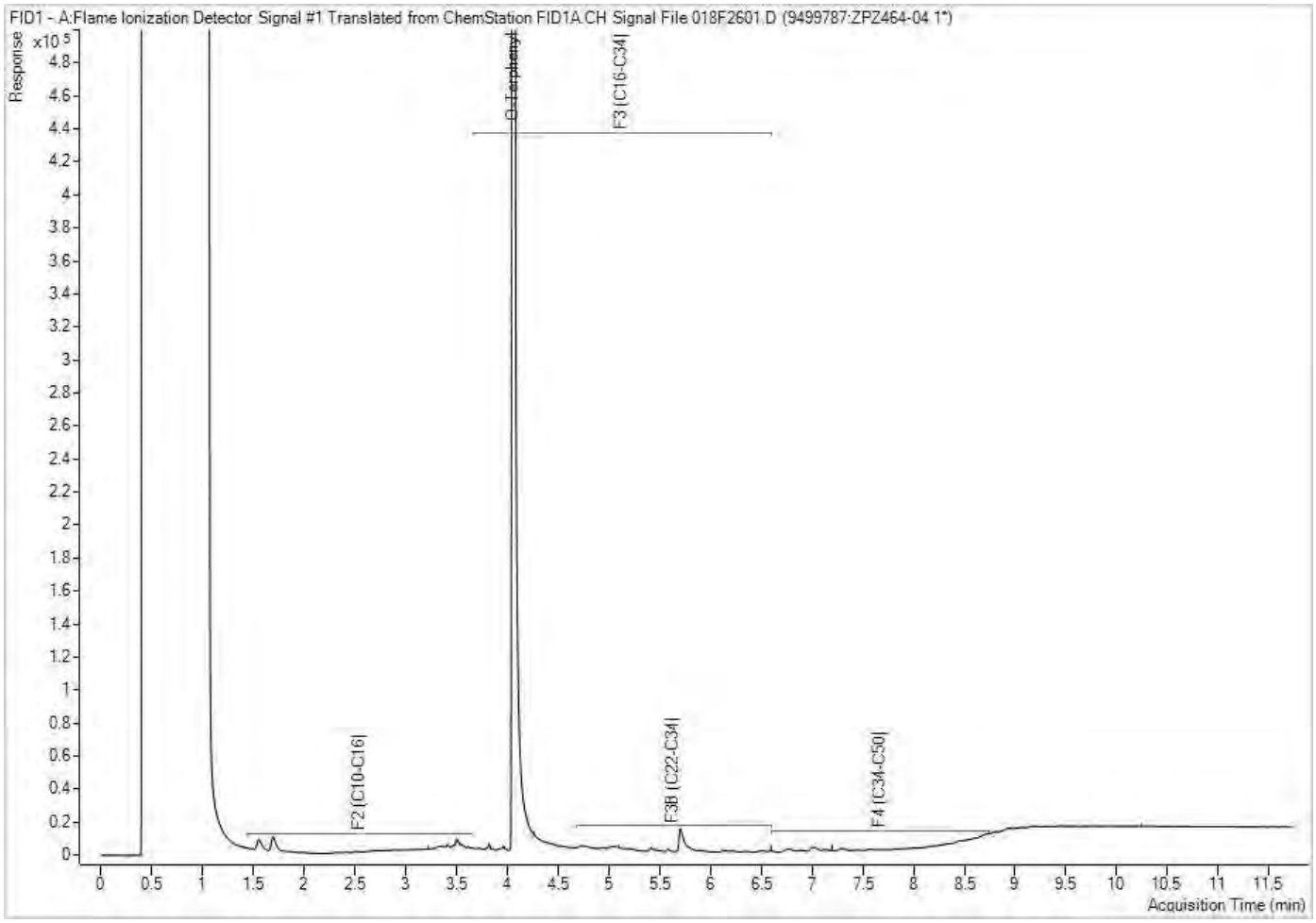
Temperature reading by:

	Relinquished by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YYYY	MM	DD	Time HH	MM	Special Instructions
1	Michell Michell Wang	2024	07	03	16	40	1	2024	07	03	16	45	Table 3 RPI
2							2						

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09
Bureau Veritas Sample: ZPZ464

Grounded Engineering Inc.
Client Project #: 22-282-203
Client ID: BH202

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

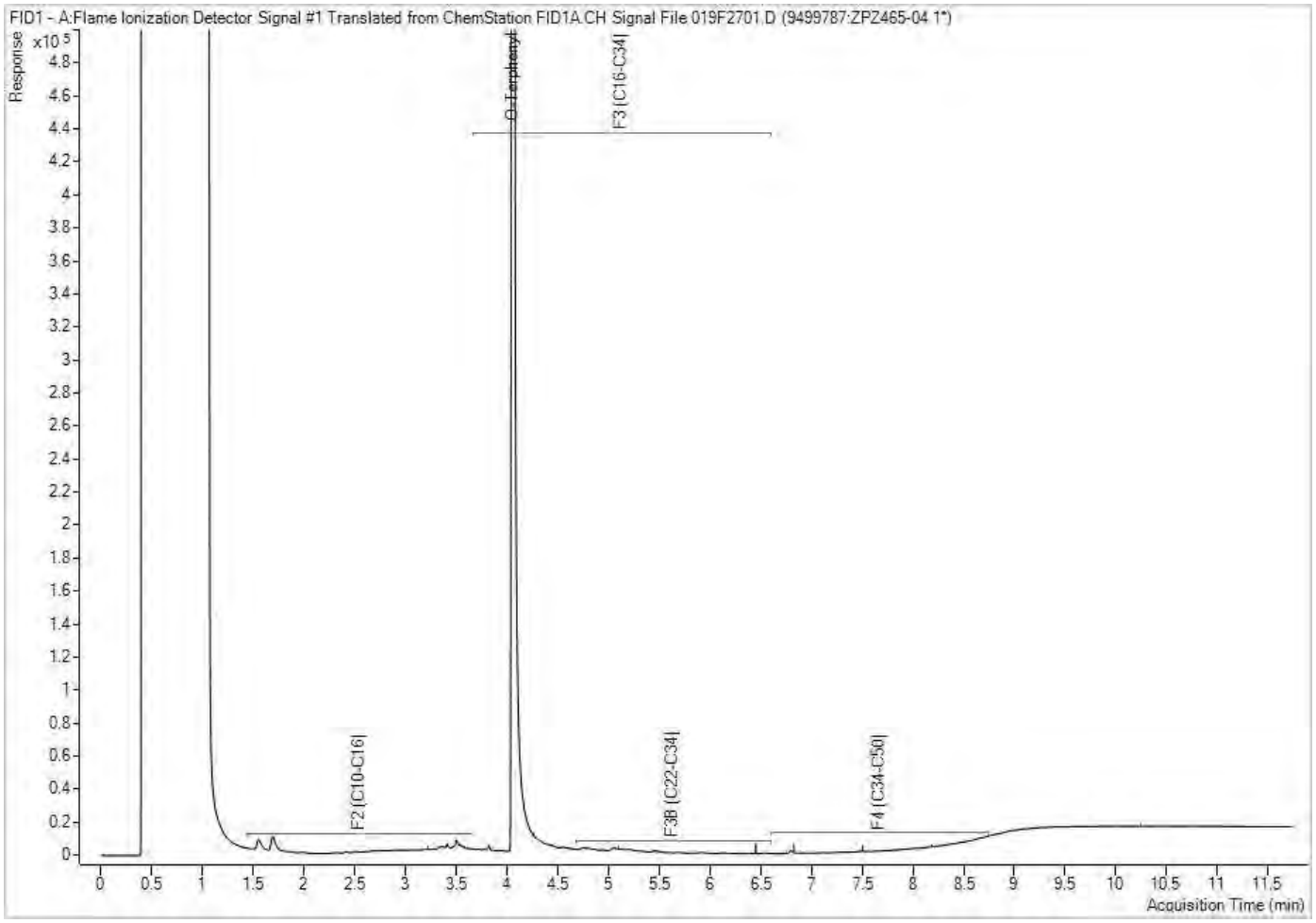


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09
Bureau Veritas Sample: ZPZ465

Grounded Engineering Inc.
Client Project #: 22-282-203
Client ID: BH PIN-MW01

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

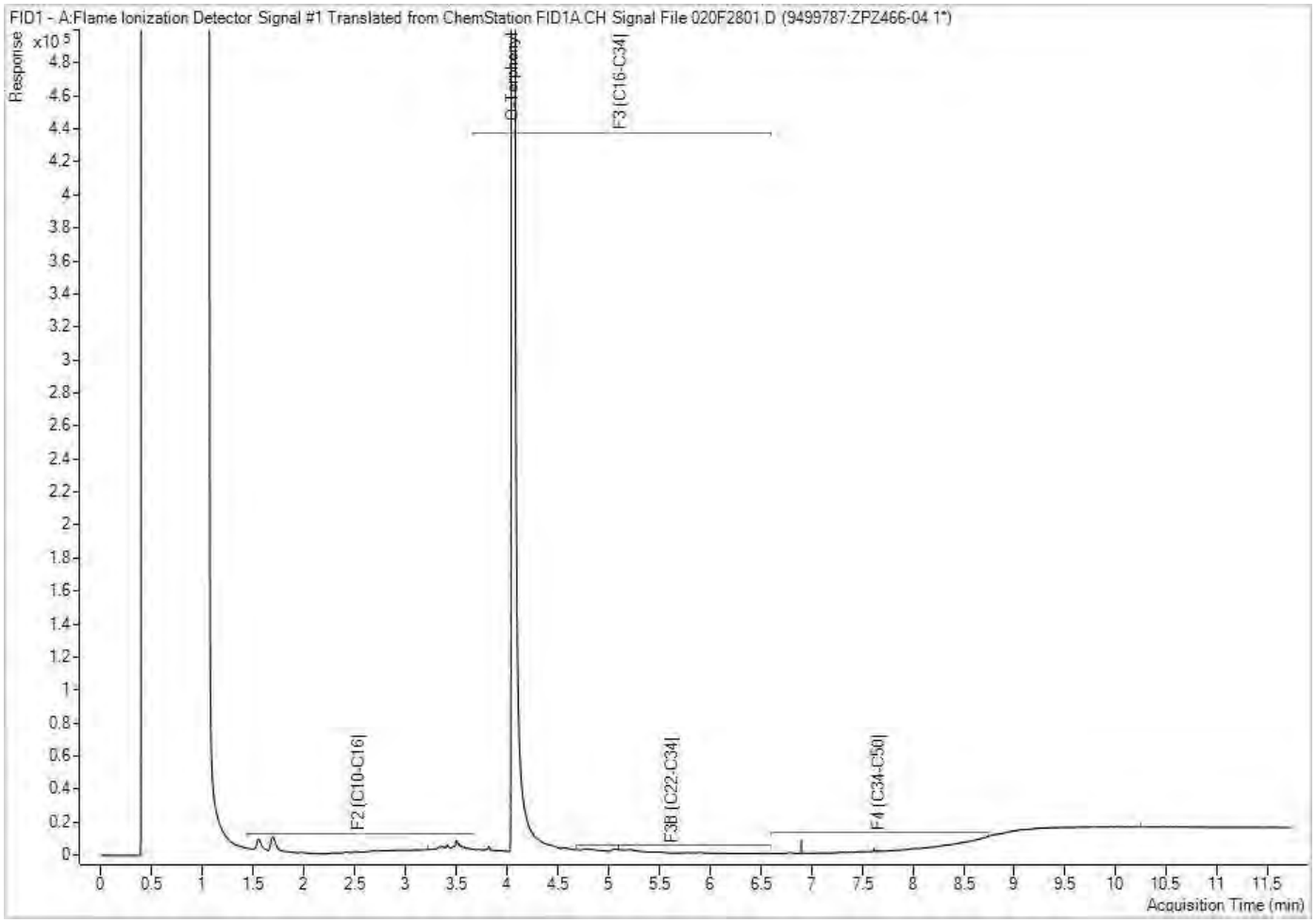


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09
Bureau Veritas Sample: ZPZ466

Grounded Engineering Inc.
Client Project #: 22-282-203
Client ID: BH PIN-MW03

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

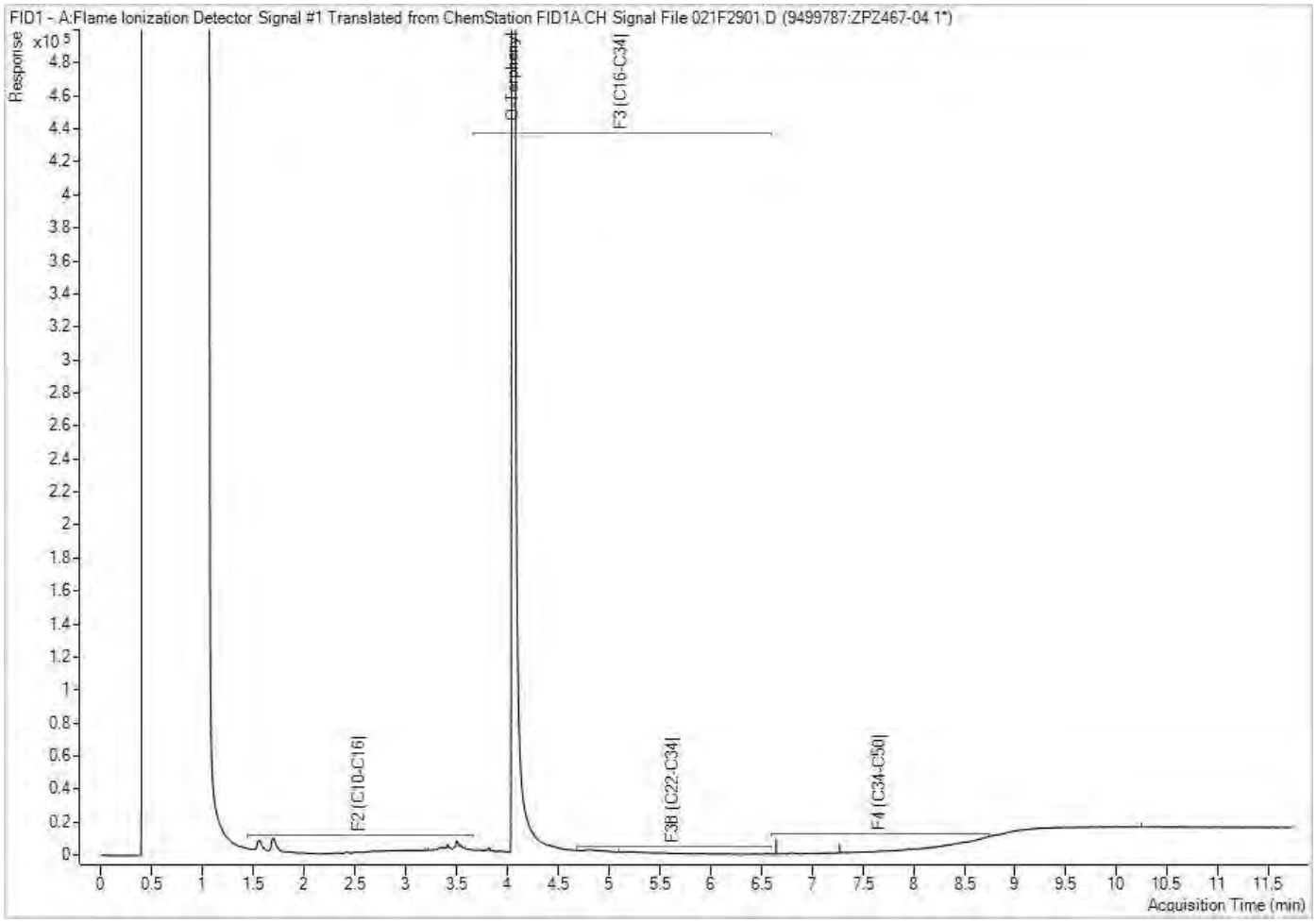


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C4K2462
Report Date: 2024/07/09
Bureau Veritas Sample: ZPZ467

Grounded Engineering Inc.
Client Project #: 22-282-203
Client ID: DUP22

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Exceedance Summary Table – Reg153/04 T3-GW-C

Result Exceedances

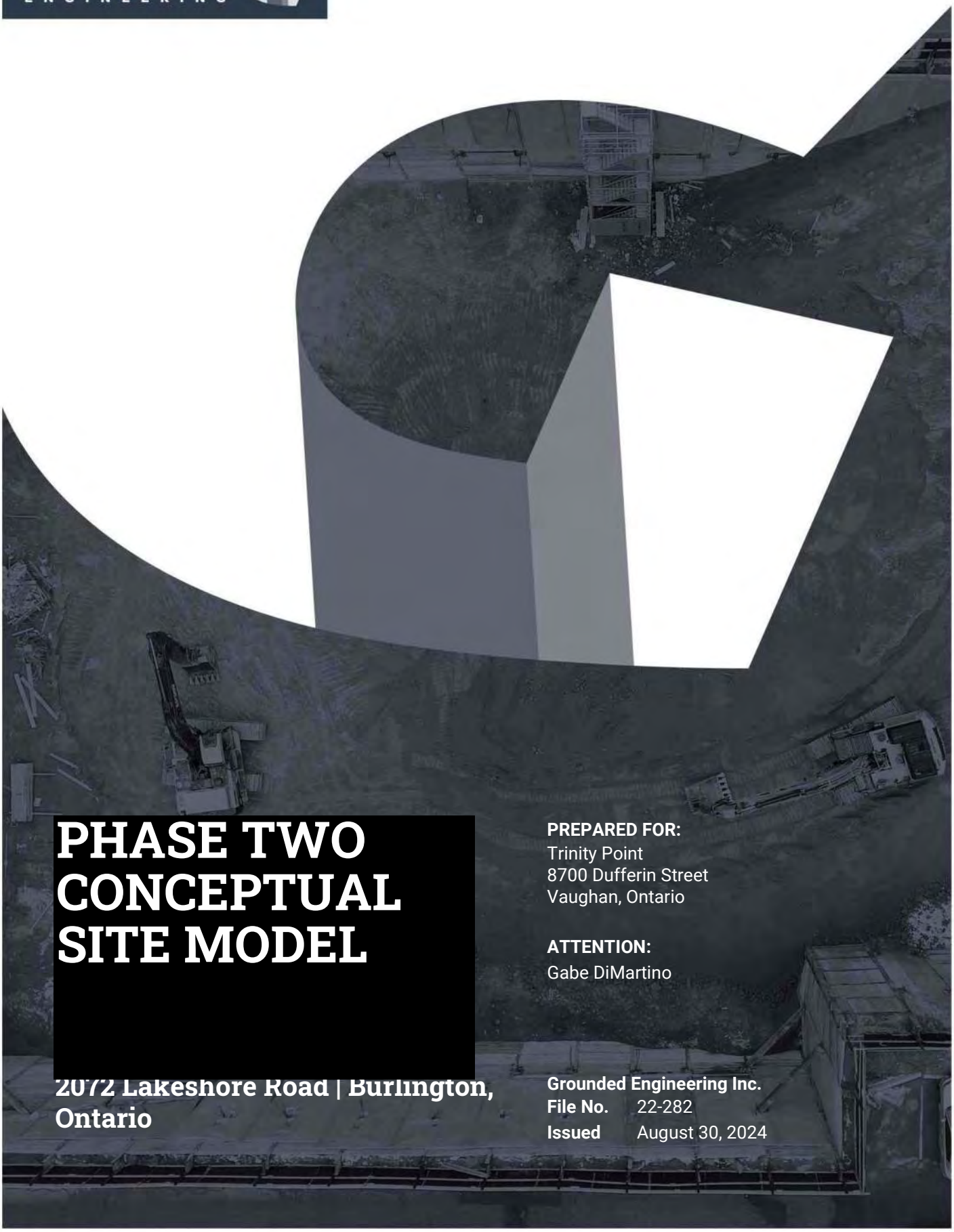
Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
BH PIN-MW03	ZPZ466-02	Dissolved Sodium (Na)	2300000	3200000	1000	ug/L

The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

Bureau Veritas 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

APPENDIX G





PHASE TWO CONCEPTUAL SITE MODEL

2072 Lakeshore Road | Burlington, Ontario

PREPARED FOR:
Trinity Point
8700 Dufferin Street
Vaughan, Ontario

ATTENTION:
Gabe DiMartino

Grounded Engineering Inc.
File No. 22-282
Issued August 30, 2024

TABLE OF CONTENTS

1 INTRODUCTION 1
1.1 Site Description 1
1.2 Property Ownership 1
1.3 Summary of Previous Investigations 2
2 INFORMATION FROM THE PHASE ONE ENVIRONMENTAL SITE ASSESSMENT 4
2.1 Areas Where Potential Contaminating Activity Has Occurred 4
2.2 Areas of Potential Environmental Concern 8
2.3 Subsurface Structures and Utilities 9
3 PHYSICAL SETTING OF THE PHASE TWO PROPERTY 11
3.1 Stratigraphy 11
3.1.1 Geological Unit Thickness 11
3.1.2 Elevations of Geological Units 11
3.1.3 Material in Geological Units 12
3.2 Approximate Depth to Water Table 12
3.3 Site Hydrogeological Characteristics 13
3.4 Approximate Depth to Bedrock 14
3.5 O.Reg. 153/04 Section 35 14
3.6 O.Reg. 153/04 Section 41 14
3.7 O.Reg. 153/04 Section 43.1 15
3.8 Soils Placed On, In or Under the Phase Two Property 15
3.9 Proposed Buildings 15
4 CONTAMINATION IN OR UNDER THE PHASE TWO PROPERTY 15
4.1 Applicable Site Condition Standard 15
4.2 Media Investigated (Section 4.1 Ph Two ESA) 16
4.3 Sampling Rationale and Areas Where Contaminants are Present 16
4.3.1 Location and Depth of Soil Samples 18
4.3.2 Location and Depth of Groundwater Samples 21
4.4 Exemption of Exceedances (O.Reg. 153/04 Sec 49.1) 21
4.4.1 Exemption of Salt-Related Exceedances (Sec 49.1 (1)) 21
4.5 Contaminants Associated with Each Area 22
4.6 Medium in Which Contaminants are Associated 23
4.7 Information Known about Each Contaminated Area 23
4.8 Distribution of Contaminant 23
4.9 Reasons for Discharge of Contaminant 23
4.10 Migration of Contaminant 24
4.11 Climatic or Meteorological Influences on Migration 24
4.12 Soil Vapour Intrusion into Buildings 24
4.13 Relevant Construction Features of Buildings 24
4.14 Building HVAC 25
4.15 Subsurface Structures and Utilities 25

5 POTENTIAL EXPOSURES PATHWAYS AND RECEPTORS 26
5.1 DESCRIPTION OF ALL COMPONENTS 26
5.2 RECEPTOR HUMAN HEALTH 27
5.3 RECEPTOR TERRESTRIAL ENVIRONMENT 28
5.4 RECEPTOR AQUATIC ENVIRONMENT 28
5.5 SUMMARY OF POTENTIAL RECEPTOR RISKS 28

FIGURES

Figure 1 – Property Location Plan
Figure 2 – PCA Locations
Figure 3 – APEC Locations
Figure 4 – Boreholes and Monitoring Wells Location
Figure 5 – Groundwater Elevations and Contours
Figure 6 – Metals Exceedances in Soil – Plan View
Figure 7 – Metals Exceedances in Soil – Section A – A'
Figure 8 – Metals Exceedances in Soil – Section B – B'
Figure 9 – Petroleum Hydrocarbons Exceedances in Soil – Plan View
Figure 10 – Petroleum Hydrocarbons Exceedances in Soil – Section A – A'
Figure 11 – Petroleum Hydrocarbons Exceedances in Soil – Section B – B'
Figure 12 – Summary of Analysis in Groundwater – Plan View
Figure 13 – Groundwater Sampling Locations – Section A – A'
Figure 14 – Groundwater Sampling Locations – Section B – B'
Figure 15 – Human Health Conceptual Site Model
Figure 16 – Ecological Conceptual Site Model

TABLES

Table 1 – Water Levels

1 Introduction

1.1 Site Description

Trinity Point retained Grounded Engineering Inc. to complete a Phase Two Environmental Site Assessment (ESA) of the property located at 2072 Lakeshore Road, Burlington, Ontario (Property). The Phase Two ESA was conducted to investigate the Areas of Potential Environmental Concern (APECs) that have been identified on the Property. The site location is presented on Figure 1.

The Property is irregular in shape, with a total area of approximately 0.15 ha. The Property consists of a trapezoidal parcel of land south of Lakeshore Road, north of Old Lakeshore Road, and east of Pearl Street. The Property is currently occupied by an existing 1-storey building which is a slab-on-grade structure with no basements (with the exception of a small crawlspace area). The building is presently surrounded by asphalt surface parking and landscaping.

The Property is considered to be in commercial land use by the Ontario Ministry of the Environment, Conservation and Parks (MECP). It is understood that the Property will be developed with a 27-storey residential tower with seven (7) levels of underground parking, which will be considered to be in residential land use by the MECP. The Phase Two ESA has been prepared to support a Record of Site Condition and in accordance with Ontario Regulation 153/04 (O.Reg. 153/04).

1.2 Property Ownership

The Property information is provided below:

Municipal Address	2072 Lakeshore Road, Burlington, ON
Legal Description	Part of Lots 2, 3, and 4, Registered Plan 92, City of Burlington
PIN(s)	07061-0009
Assessment Roll Number	Not provided.
Zoning	DL-A – Downtown Old Lakeshore Road Zone A by the City of Burlington Zoning By-Law.
Area	0.15 ha
Zone Northing Easting	17 T 4797710 N 597861 E
Property Owner Information	Lakeshore (Burlington) Inc.

1.3 Summary of Previous Investigations

The following environmental reports were provided for review for the Property. The findings of the reports are summarized below:

Title and File No.	Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233963
Report Date	April 1, 2022
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The Property was considered to be in commercial land use. • The Phase I ESA was completed for due diligence purposes. • At the time of the site inspection, the Property was occupied by a two-story office building, reportedly constructed in 1910. An addition was constructed on the north portion of the building between 1995 and 1998. The building had a crawl space under the southeast portion of the building. • The report summarized a prior Phase I ESA that was completed by EACL in 2002. The report indicated that a former gasoline station was present on the Property (formerly 2071 Lakeshore Road) between 1950 and early 1980s. No tank decommissioning documents were provided for review. The EACL report was not provided to Grounded for review. • The report identified the following APEC causing PCAs: ○ An inferred pump island associated with a historical automotive service station was observed in the central and southwest portion of the Property. • The Phase I ESA recommended a Phase II ESA to investigate this PCA.

Title and File No.	Phase II Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233698.001
Report Date	March 5, 2019
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The Phase II ESA was completed to assess the former gasoline station that was on-Site. • Three boreholes (PIN-MW01 to PIN-MW03) were advanced to depth of 4.57 meters below ground surface (mbgs). Each of the boreholes were finished with a monitoring well. The Property was considered to be in commercial land use.

	• The soil stratigraphy consists of sand with gravel to a maximum depth of 2.1 mbgs. Native materials consisted of silt with trace weather shale that extended to a maximum depth of 3 mbgs. Shale was encountered at the Property around 3 mbgs. • Soil and groundwater samples were collected from each borehole/monitoring well and submitted for the analysis of petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOC) and/or lead. The results were compared to the 2011 Table 3 Site Condition Standards for coarse textured soil and residential property use (2011 Table 3 SCS). • Soil results indicated that there were no concentrations above the standard for PHC, PAHs or VOCs. There were exceedances of lead in borehole MW02, which had a concentration of 130 ug/g, exceeding the 2011 Table 3 SCS of 120 ug/g. • The groundwater results indicated there were no concentrations exceeding the 2011 Table 3 SCS for PHCs, VOCs, PAHs and lead. • The report concluded that no additional investigations were required at the time.

Title and File No.	Phase I Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. File No: 233963.002
Report Date	April 1, 2022
Prepared By	Pinchin Ltd.
Prepared for	The David Landry Family Trust
Description of Data, Analysis or Findings	• The report did not identify any new findings since the previous reports were written.

Title and File No.	Phase One Environmental Site Assessment, 2072 Lakeshore Road, Burlington, Ontario. DRAFT. File No: 22-282
Report Date	May 26, 2023
Prepared By	Grounded Engineering Inc.
Prepared for	Trinity Point

Description of Data, Analysis or Findings	• The Phase One ESA was prepared for the purposes of filing a Record of Site Condition, in accordance with Ontario Regulation 153/04.
	• The Phase One Property is located at 2072 Lakeshore Road, Burlington.
	• At the time of the site inspection completed on February 27th, 2023 the Property was occupied by one commercial building.
	  ○ The building was built prior to 1970 with an addition constructed in 1995.
	  ○ The building was reportedly heated by a natural gas-fired furnace unit.

	○ Due to the age and construction of the homes, the presence of asbestos, PCB-containing materials and lead-based paints were suspected. ○ One (1) decommissioned above ground storage tank (AST) was observed on the Property within the crawlspace under the building. • The Phase One ESA identified five (5) Areas of Potential Environmental Concern (APECs). ○ **APEC 1 (Central Portion of Phase One Property):** associated with former gas station and UST located on the Property. ○ **APEC 2 (Entire Phase One Property):** associated with importation of fill material of unknown quality throughout the Property. ○ **APEC 3 (Exterior Portions of Phase One Property):** associated with de-icing activities on and adjacent to the Property. ○ **APEC 4 (Northern Portion of Phase One Property):** associated with former machine shop located adjacent north to the Property. ○ **APEC 5 (Southwestern Portion of Phase One Property):** associated with two (2) USTs located adjacent south of the Property. • The CoPCs associated with the five (5) APECs identified at the Property were M, As, Sb, Se, CN-, Hg, Cr(VI), B-HWS, EC, SAR, Na, Cl-, PAHs, PHCs, BTEX, VOCs, in soil and/or groundwater. • Based on the Phase One ESA, a Phase Two ESA is required to investigate the APECs identified prior to submission for a Record of Site Condition (RSC).

2 Information from the Phase One Environmental Site Assessment

2.1 Areas Where Potential Contaminating Activity Has Occurred

Potential Contaminating Activity (PCAs) were identified in the Phase One ESA completed for the Property. The information regarding whether the PCAs have the potential to cause Areas of Potential Environmental Concerns (APECs) is provided below.

Location of PCA	PCA	APEC (Yes/No)	Rationalization
2072 Lakeshore Road (formerly 2071 Lakeshore Road) **Phase One Property**	#28$_A$ – Gasoline and Associated Products Storage in Fixed Tanks	Yes (APEC 1)	FIP: The Site was occupied by an auto service station with a UST located on the west side of the property on the 1971 FIP. COT: Owned by Sun Oil Company Limited in 1954. CD: French Douglas Sunco Service Station in 1978, Gore Park Sunco Service Station in 1968, and Pascoe & Lee Sunoco Service Station in 1963. Previous Reports: Although Pinchin investigated the former gasoline station at the Property, Grounded is of the opinion that the wells require additional sampling before a determination on whether the PCA can be ruled out can be made. Due to the PCA being on the Property, the QP is of the opinion that the PCA has potential to cause an APEC on the Property.
	#30$_A$ - Importation of Fill Material of Unknown Quality	Yes (APEC 2)	The boreholes advanced by Pinchin indicated fill materials are present at the Site. Due to the PCA being on the Property, the QP is of the opinion that the PCA has potential to cause an APEC on the Property.
2072 Lakeshore Road (formerly 2071 Lakeshore Road) **Exterior Portion of Phase One Property**	#Other1$_A$ – De-icing activities	Yes (APEC 3)	Site Reconnaissance: Salting of the walkways and parking lot was observed during the site reconnaissance. Due to the PCA being on the Property, the QP is of the opinion that the PCA has potential to cause an APEC on the Property.
2079 Lakeshore Road. 20 m north	#34$_A$ – Metal Fabrication	Yes (APEC 4)	FIPs: A machine shop was located in the northern portion of the building at 2079 Lakeshore Road in the 1971 FIP. Due to proximity and upgradient location, the QP is of the opinion that the PCA has potential to cause an APEC on the Property.
2076 Old Lakeshore Road 20 m south	#28$_B$ – Gasoline and Associated Products Storage in Fixed Tanks	Yes (APEC 5)	FIPs: Two USTs were observed on the 1924/1932 FIPs. Due to proximity, the QP is of the opinion that the PCA has potential to cause an APEC on the Property.

Location of PCA	PCA	APEC (Yes/No)	Rationalization
2093 Lakeshore Road 50 m east	#Other3$_A$ – Spills	No	ERIS: A spill of hydraulic oil (20L) was reported at this address in 2006 which indicated that soil contamination was possible. Due to the location of the PCA and small volume of the spill, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2042 Lakeshore Road. (Formerly 32 Water East) 80 m southwest	#28$_C$ – Gasoline and Associated Products Storage in Fixed Tanks	No	FIPs: 3 USTs in the 1932 FIPs. A gasoline station with 1 UST in the 1971 FIP. CD: Lakeshore Fina Service Centre in 1978, Rolf's Fina Service Station in 1973, Emerson S & Son Fina Service Station in 1968, Canadian Petrofina Ltd Service Station in 1963. ERIS: 1 retail fuel oil tank in 1991, 1 delisted expired fuel tank that expired in 2009, and generator of oil skimmings & sludges and light fuels in 2013-2014, when it was occupied by Suncor Energy Products. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2092 Old Lakeshore Road 80 m northeast	#10$_A$ - Commercial Autobody Shops #28$_D$ – Gasoline and Associated Products Storage in Fixed Tanks	No	FIPs: An Auto Service with 1 UST in the 1971 FIP. CD: An auto service station on the 1971 FIP. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2119 Old Lakeshore Road 150 m northeast	#10$_B$ - Commercial Autobody Shops #28$_E$ – Gasoline and Associated Products Storage in Fixed Tanks #Other3$_B$ – Spills	No	FIPs: An Auto Service with 2 USTs in the 1932 FIP. An Auto Service with 1 UST in the 1971 FIP. CD: Hall's Service Station in 1973/1968/ 1963. ERIS: 99 L of transformer oil to the ground due to rotten pole in 1996. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.

Location of PCA	PCA	APEC (Yes/No)	Rationalization
2047 Lakeshore Road/399 Elizabeth Street 80 west	#Other3$_C$ – Spills	No	ERIS: Burlington Hydro reported a spill of 10 L transformer oil to the ground in 1992. Burlington Hydro reported a spill containing PCB transmission oil to the ground in 2001. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
Parking Lot at Lakeshore and Elizabeth 80 m southwest	#Other3$_D$ – Spills	No	ERIS: Burlington PUC Vehicle spilled 8 L of hydraulic oil to the parking lot in 1990. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
399 Elizabeth Street 100 m southwest	#10$_C$ - Commercial Autobody Shops #28$_F$ – Gasoline and Associated Products Storage in Fixed Tanks	No	FIPs: A garage, repairs facility and show room were observed with two USTs were observed adjacent to the facility on Elizabeth Street on the 1924/1932 FIPs. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2046 Pine Street 100 m west	#10$_D$ - Commercial Autobody Shops	No	CD: Oilfield Auto Service in 1963. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2029-2031 Lakeshore Road 130 m southwest	#28$_G$ – Gasoline and Associated Products Storage in Fixed Tanks #10$_E$ - Commercial Autobody Shops	No	FIPs: A gasoline and service station with 2 USTs in the 1932 FIP. An Auto Service with 1 UST in the 1971 FIP. CD: Lakeshore Texaco Service Station in 1973, Lakeshore Autobody in 1975-1980, and Russel's Autobody in 1970-1975. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2027 Lakeshore Road (formerly 21 Water Street) 140 m southwest	#10$_F$ - Commercial Autobody Shops #28$_H$ – Gasoline and Associated Products Storage in Fixed Tanks	No	FIPs: A garage and service station with two USTs were observed on the property on the 1924/1932 FIPs. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
	#Other2$_A$ – Coal Storage	No	

Location of PCA	PCA	APEC (Yes/No)	Rationalization
396 Elizabeth Street 165 m west	#59_A – Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products		FIPs: A coal shed and wood yard was observed on the 1898, 1910, 1924 and 1932 FIPs. Due to the location of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
420 Martha Street 180 m north	#18_A – Electricity Generation, Transformation and Power Stations	No	CD: Burlington Hydro in 2008 and 2013. Due to the location and distance of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
2020 Lakeshore Road. (Former address of 34 and 42 Water Street) 220 m southwest	#28_I – Gasoline and Associated Products Storage in Fixed Tanks	No	FIPs: Dominion Canners (Canning & Ketchup Factory) was observed at the current location of 2020 Lakeshore Road (220 m southwest of the Site) at the former address of 34 and 42 Water Street on the 1910, 1924 and 1932 FIPs. A tank was also observed on Water Street, north of the facility (only visible on the 1910 FIP). Due to the location and distance of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.
No address, middle northern portion of the Study Area	#18_B – Electricity Generation, Transformation and Power Stations	No	FIPs: A Hydo Electric Power Commission Transmission Line was observed north of the Site, on the north side of Pine Street. The transmission line expanded along the entire Study Area on the 1924/1932 FIPs. Due to the location and distance of the PCA, the QP is of the opinion that the PCA does not have the potential to cause an APEC on the Property.

The locations of the PCAs and APECs are shown on Figure 2. The PCAs that were deemed to cause APECs are listed in Section 2.2 below.

2.2 Areas of Potential Environmental Concern

The following APECs resulting from PCAs were identified below and shown on Figure 2.

Areas of Potential Environmental Concern (APECs)	Location of APECs on Phase One Property	PCA	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC 1	Central on the Phase One Property	#28_A – Gasoline and Associated Products Storage in Fixed Tanks	PHCs BTEX PAHs	Soil & Groundwater
APEC 2	Entire Phase One Property	#30_A - Importation of Fill Material of Unknown Quality	Metals As, Sb, Se B-HWS CN- Hg Cr(VI) Low or High pH PAHs PHCs VOCs BTEX	Soil & Groundwater Soil & Groundwater Soil Soil & Groundwater Soil & Groundwater Soil & Groundwater Soil & Groundwater Soil & Groundwater Soil & Groundwater Soil & Groundwater Soil & Groundwater
APEC 3	Exterior Portions of Phase One Property	#$Other1_A$ - De-icing Activities	EC SAR Cl Na	Soil Soil Groundwater Groundwater
APEC 4	Northern Portion of the Phase One Property	#34_A – Metal Fabrication	Metals As, Sb, Se, Hg Cr(VI) PHCs VOCs BTEX	Groundwater
APEC 5	Southwestern Portion of the Phase One Property	#28_B – Gasoline and Associated Products Storage in Fixed Tanks	PHCs BTEX PAHs	Groundwater

2.3 Subsurface Structures and Utilities

The site inspection of the Property and utility locates conducted as part of the Phase One ESA found the following information regarding utilities and services at the Property:

- Buried hydro enters the Property via the south boundary through Old Lakeshore Road
- Buried gas lines enter the Property via the south boundary through Old Lakeshore Road
- Buried communication lines enter the Property via the south boundary through Old Lakeshore Road
- Electrical lines enter the Property via the south boundary through Old Lakeshore Road

It is possible that the bedding materials for the underground utilities could serve as preferential pathways for the migration of CoPCs; however, as the stabilized water levels are approximately 1.2 m below ground surface, it is unlikely that the utilities will intersect the water table.

3 Physical Setting of the Phase Two Property

3.1 Stratigraphy

Detailed geological information for the Property is presented on the geologic cross sections shown in Figures 7 to 14. The geology at the Property is summarized below.

3.1.1 Geological Unit Thickness

Geological Unit Thickness (Estimate)	
Borehole	**BH101 to BH107, MW01 to MW03**
	Approximate Thickness Range (m)
Earth Fill	0 to 3.0
Sand	0.8 to 2.0
Silt/Clayey Silt (Glacial Till)	1.5 to 3.9
Bedrock	3.2 to 27.9

3.1.2 Elevations of Geological Units

Geological Unit Elevations		
Borehole	**BH101 to BH10, MW01 to MW03**	
	Elev. Top Range (masl)	**Elev. Bottom Range (masl)**
Earth Fill	82.8 to 82.3	81.5 to 79.6
Sand	81.5	80.3
Silt/Clayey Silt (Glacial Till)	81.3 to 79.6	79.3 to 78.9
Bedrock	79.3 to 78.9	74.4 to 54.4

3.1.3 Material in Geological Units

Geological Units	Description
Surficial Materials	BH101, BH102, BH104 to BH107, BH201, and MW01 to MW03 encountered a pavement structure consisting of 40 to 65 mm asphaltic concrete. BH103 and BH202 encountered topsoil of 150 mm in thickness.
Earth Fill	Underlying the pavement structure and topsoil, earth fill was encountered at all borehole locations. The earth fill extended to a depth of 0 to 3.0 mbgs (Elev. 82.8 to 79.6 masl). The earth fill generally consisted of sand or silt with some gravel. The earth fill was generally brown and moist.
Sand	Underlying the earth fill, sand was encountered at MW01 to MW03, and BH103. The sand extended to a depth of 0.8 to 2.0 mbgs (Elev. 81.5 to 80.3 masl). The sand generally consisted of some silt and trace amounts of gravel. The sand was generally brown and moist to wet.
Silt/Clayey Silt (Glacial Till)	Underlying the earth fill in BH101, BH102, BH104 to BH107, BH201 and sand in MW01 to MW03, BH103, BH202 an undisturbed native glacial till deposit with a silt and clay matrix was encountered at all boreholes. The silt/clayey silt extended to a depth of 1.5 to 3.9 (Elev. of 81.3 to 78.9 masl). The silt/clayey silt generally consisted of trace sand and some gravel. The silt/clayey silt was generally reddish-brown and moist.
Bedrock	Queenston Formation shale bedrock was encountered at a depth of 3.2 mbgs (79.3 masl). The bedrock beneath the site is the Queenston Formation, which is a deposit predominantly comprising thin to medium bedded red to reddish brown calcareous shale and siltstone (“shale” by local convention) of Upper Ordovician age. The low-fissility shale contains grey-green mottling and banding which is occasionally harder than the red shale, possibly indicating a higher carbonate content which is called “limestone” by local convention. However, Queenston shale within the study area is generally calcareous and is interbedded with stronger calcareous sandstone and silty bioclastic carbonate.

3.2 Approximate Depth to Water Table

A total of twelve (12) monitoring wells have been installed by Grounded Engineering Inc. and Pinchin Ltd. The monitoring wells were located within the APECs identified in the Phase One ESA (Grounded, 2023) for the Property. Screened intervals of the monitoring wells were selected for the collection of groundwater samples within the desired stratum. Groundwater samples were collected from BH104, BH106, BH107, PIN-MW01, PIN-MW03 and BH202. Monitoring well PIN-MW02 was observed to be damaged and could not be sampled. Monitoring well BH105 and BH202 were dry at the time of the Phase Two ESA and could not be sampled. Monitoring wells BH101 and BH103 were screened in the deeper bedrock for hydrogeological purposes, outside of APECs and were not sampled as part of the Phase Two ESA.

Eight groundwater level measurements were conducted by Grounded Engineering Inc. in the newly installed and useable existing monitoring wells using a Solinst interface probe on the following dates:

- March 20, 2023
- April 3, 2023
- May 5, 2023
- June 9, 2023
- July 7, 2023
- July 3, 2024
- July 11, 2024
- July 27, 2024

To calculate the groundwater elevation in the monitoring well, the following calculation was completed:

- *Geodetic Ground Elevation (masl) – Measured Depth to Water Table (m) + Stick up of Well (m) = Groundwater Elevation (masl)*

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) or free-flowing products were detected on the Property. The groundwater levels are presented in Table 1 and Figure 5.

The design groundwater table is hydraulically connected with the water level of Lake Ontario, at about Elev. 75± m. There is also infiltrated stormwater perched in the earth fill which is flowing down towards the groundwater table (as observed and previously reported in the Pinchin monitoring wells).

Locally higher water level readings (higher than Elev. 77± m) were observed in boreholes BH104, PIN-MW01, PIN-MW02 and PIN-MW03. These higher water level readings are considered not representative of the stabilized groundwater condition across the site.

Additional groundwater data will be required to assess seasonal variability in groundwater elevations and flow direction.

3.3 Site Hydrogeological Characteristics

Horizontal Hydraulic Gradients	The horizontal hydraulic gradient at the Property ranged from 0.01 to 0.09 m/m based on the groundwater levels in monitoring wells BH101, BH103 and BH104.
Vertical Hydraulic Gradients	Based on the location and depths of the installed monitoring wells, the vertical gradient could not be calculated.
Hydraulic Conductivity	Earth fill – 1.0×10^{-6} m/s (estimated via published literature values (Freeze and Cherry, 1979))

	Sands – 1.0 x 10^{-5} m/s (estimated via published literature values (Freeze and Cherry, 1979)) Clayey Silt – 1.0 x 10^{-7} m/s (estimated via published literature values (Freeze and Cherry, 1979))

3.4 Approximate Depth to Bedrock

Queenston Formation shale bedrock was encountered at a depth of 3.2 mbgs (79.3 masl).

3.5 O.Reg. 153/04 Section 35

Section 35(2) of the Regulation does not apply to the Phase Two Property based on the following rationale:

- The Property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the property, are supplied by a municipal drinking water system, as defined in the Safe Drinking Water Act, 2002.
- The record of site condition does not specify agricultural or other use as the type of property use for which the record of site condition is filed.
- The Property is not located in an area designated in the municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of groundwater.
- Neither the Property nor any of the properties in the Phase One study area has a well used or intended for use as a source of water for human consumption or agriculture.
- The owner has given the clerk of the municipality (City of Toronto) written notice of intention to apply the standards in preparing a record of site condition for the property, and the municipality has given written notice to the owner that it does not object to the application of the standards,

3.6 O.Reg. 153/04 Section 41

Section 41 of the Regulation does not apply to the Phase Two Property based on the following rationale:

- The Property is not located within an area of natural significance;
- The Property does not include or is not adjacent to an area of natural significance or part of such an area;
- The Property does not include land that is within 30 m of an area of natural significance or part of such an area;
- The surface soil at the Property has a pH value that is not less than 5 or greater than 9; and
- The sub-surface soil at the Property has a pH value that is not less than 5 or greater than 11.

3.7 O.Reg. 153/04 Section 43.1

Section 43.1 of the Regulation does not apply to the Phase Two Property based on the following rationale:

- The Property is not considered a shallow soil property; or
- The Property does not include all or part of a water body and is not adjacent to a water body and does not include land that is within 30 m of a water body.

3.8 Soils Placed On, In or Under the Phase Two Property

No soils have been imported or placed on, in or under the Phase Two Property since the site reconnaissance completed for the Phase One ESA in February 27, 2023.

3.9 Proposed Buildings

The Property is considered to be in commercial land use as defined by the Ontario Ministry of the Environment, Conservation and Parks (MECP) O.Reg 153/04.

It is understood that the Phase Two Property will be developed with a 27-storey residential tower with seven (7) levels of underground parking. The Property will be considered to be in residential land use as defined by the O.Reg 153/04.

4 Contamination In or Under the Phase Two Property

4.1 Applicable Site Condition Standard

The applicable site condition standard for the Phase Two Property is determined to be Table 3 Site Condition Standard for Residential/Parkland/Institutional in non-potable groundwater condition for coarse] textured soil due to the following reasons:

Current Land Use	Commercial
Future Land Use	Residential
Soil Texture	Coarse based on grain size analysis performed on the soil (Appendix D)
Potable Water Source	Municipal service
Bedrock Depth	Bedrock is located at a depth of greater than 2 m.
Property located within 30 m of a surface water body (Yes/No)	No

Property located in or adjacent to a provincial park or an Area of Natural Significance (Yes/No)	No

Grounded Engineering Inc. notified the City of Burlington Clerk of the intention to use non-potable groundwater standards on May 9, 2023. No objections have been received to the use of non-potable groundwater standards.

4.2 Media Investigated

Grounded Engineering Inc. conducted the following specific subsurface work at the Property:

Boreholes and Monitoring Wells	**Pinchin Investigation (2019):** • Advanced three (3) boreholes (PIN-MW01 to PIN-MW03) to depths of 4.57 m below ground surface (m bgs) • Installed three (3) monitoring wells (PIN-MW01 to PIN-MW03). **Grounded Investigation (2023):** • Advanced seven (7) boreholes (BH101 to BH107) to depths of 8.0 to 27.9 m below ground surface (m bgs) • Installed seven (7) monitoring wells (BH101 to BH107) **Grounded Investigation (2024):** • Advanced six (6) boreholes (BH201 to BH206) to depths of 2 to 10 mbgs • Installed two (2) monitoring wells (BH201 to BH202)

Parameters Investigated for Soil	**Pinchin Investigation (2019):**
	• Lead (Pb)
	• PAHs
	• PHCs
	• BTEX
	• VOCs
	Grounded Investigations (2023-2024):
	• M
	• H-M
	  ○ As, Se, Sb
	• ORPs
	  ○ B-HWS, CN-, EC, SAR, Cr(VI), Hg, pH
	• PAHs
	• PHCs
	• BTEX
	• VOCs

Parameters Investigated for Groundwater	**Pinchin Investigation (2019):**
	• Pb
	• PAHs
	• PHCs
	• BTEX
	• VOCs
	Grounded Investigations (2023-2024):
	• M
	• H-M
	  ○ As, Se, Sb
	• ORPs
	  ○ CN-, Na, Cl, Cr(VI), Hg, pH
	• PAHs
	• PHCs
	• BTEX
	• VOCs

• 3 soil samples were submitted for grain size analysis and soil classification by Grounded. • All boreholes and monitoring wells were surveyed to a geodetic benchmark. • All new monitoring wells were developed prior to sampling. • Groundwater level measurements were conducted in all accessible monitoring wells to determine groundwater elevation on the Property.	

4.3 Sampling Rationale and Areas Where Contaminants are Present

The table below identified all APECs listed in the Phase One ESA as well as the boreholes that were used to evaluate each APEC. The findings with respect to any contaminant noted are also presented.

Areas of Potential Environmental Concern (APECs) & Location	Potentially Contaminating Activities (PCAs)	Contaminants of Potential Concern (CoPCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)	Borehole or Monitoring Well Associated	Exceedances

APEC 1 (Central Portion of the Property)	#28$_A$ – Gasoline and Associated Products Storage in Fixed Tanks	PHCs BTEX PAHs	Soil & Groundwater	PIN-MW01 BH105 BH107 BH201	Soil: None Groundwater: None
APEC 2 (Entire Phase One Property)	#30$_A$ - Importation of Fill Material of Unknown Quality	Metals As, Sb, SE CN- Hg Cr(VI) PAHs PHCs VOCs BTEX	Soil & Groundwater	PIN-MW01 – PIN-MW03 BH101 – BH107 BH201-BH206	Soil: PHC F3 in BH104, zinc and cadmium throughout Groundwater: None
		B-HWS Low or High pH	Soil		
APEC 3 (Exterior Portions of Phase One Property)	#Other1$_A$ - De-icing Activities	EC SAR	Soil	BH101 – BH107 BH201-BH206	Soil: None Groundwater: None
		Cl Na	Groundwater		
APEC 4 (Northern Portion of the Phase One Property)	#34$_A$ – Metal Fabrication	Metals As, Sb, Se, Hg Cr(VI) PHCs VOCs BTEX	Groundwater	PIN-MW02 BH101 BH104 BH105	None

Exceedances in the soil are presented in Figure 6 to 11. The cross sections of the groundwater are found in Figures 12 to 14.

4.3.1 Location and Depth of Soil Samples

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
Pinchin (2019)										

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
MW01-1	0.1 - 1.5	82.3 - 80.9	Sand	1,2	✓			✓	✓	✓
MW01-2	1.5 - 2.1	80.9 - 80.3	Sand	1,2	✓			✓	✓	✓
MW01-3	2.1 - 3.0	80.3 - 79.3	Silt	1,2	✓			✓	✓	✓
MW02-3	1.5 - 2.1	81.0 - 80.4	Sand	2	✓			✓	✓	✓
MW03-2	0.8 - 1.5	81.7 - 80.9	Sand	2	✓			✓	✓	✓
MW03-3	1.5 - 2.0	80.9 - 80.5	Sand	2	✓			✓	✓	✓
Grounded (2023)										
BH101 SS3	1.5 - 2.1	81.1 - 80.5	Fill	2,3	✓	✓	✓	✓	✓	✓
BH101 SS4	2.3 - 2.9	80.3 - 79.7	Fill	2,3	✓	✓	✓	✓	✓	✓
BH102 SS2	0.8 - 1.4	81.6 - 81.0	Fill	2				✓	✓	✓
BH102 SS3A	1.5 - 2.1	80.8 - 80.3	Fill	3	✓	✓	✓			
BH102 SS4	2.3 - 2.9	80.1 - 79.5	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH103 SS2	0.8 - 1.4	81.6 - 81.0	Sand	2				✓	✓	✓
BH103 SS3A	1.5 - 2.0	80.8 - 80.4	Sand	2,3	✓	✓	✓			
BH103 SS4	2.3 - 2.9	80.1 - 79.4	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH104 SS1	0.0 - 0.6	82.8 - 82.2	Fill	2,3	✓	✓	✓	✓	✓	✓
BH104 SS3	1.5 - 2.1	81.2 - 80.6	Clayey Silt Till	2				✓	✓	✓
BH104 SS4	2.3 - 2.9	80.5 - 79.9	Clayey Silt Till	3	✓	✓	✓			

Sample ID	Depth		Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
BH105 SS2	0.8 - 1.4	81.7 - 81.1	Fill	1,2,3	✓	✓	✓	✓	✓	✓
BH105 SS4	2.3 - 2.9	80.2 - 79.6	Clayey Silt Till	1,2,3	✓	✓	✓	✓	✓	✓
BH106 SS3	1.5 - 2.1	81.0 - 80.3	Fill	2,3	✓	✓	✓	✓	✓	✓
BH106 SS4	2.3 - 2.9	80.2 - 79.6	Clayey Silt Till	2,3	✓	✓	✓	✓	✓	✓
BH107 SS3	1.5 - 2.1	80.8 - 80.2	Fill	1,2,3	✓	✓	✓	✓	✓	✓
BH107 SS4	2.3 - 2.9	80.0 - 79.4	Clayey Silt Till	1,2,3	✓	✓	✓	✓	✓	✓
Grounded (2024)										
BH201 DP2	0.8 - 1.5	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH201 DP4A	2.3 - 2.8	80.2 - 79.7	Fill	Delineation					✓	
BH202 DP2	0.8 - 1.5	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH203 DP5	2.4 - 3.0	80.1 - 79.5	Clayey Silt Till	Delineation					✓	
BH204 DP5	2.4 - 3.0	80.3 - 79.6	Clayey Silt Till	Delineation	✓	✓	✓			
BH205 DP2	0.6 - 1.2	82.3 - 81.7	Fill	Delineation						
BH205 DP4	1.8 - 2.3	81.1 - 80.6	Clayey Silt Till	Delineation					✓	
BH206 DP3	1.2 - 1.8	81.7 - 81.0	Fill	Delineation	✓	✓	✓			
BH206 DP4	1.8 - 2.4	81.0 - 80.4	Clayey Silt Till	Delineation					✓	

*During the Pinchin (2019) investigation, soil samples were submitted for the following select metals: lead (Pb)
**Soil samples were submitted for the following select ORPs: Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)), low or high pH, Boron Hot-Water Soluble, EC, SAR

4.3.2 Location and Depth of Groundwater Samples

Sample ID	Screen Depth		Screen Strata	APEC Assessed	M*	H-M	ORPs**	PAHs	PHC & BTEX	VOCs
	mbgs	masl								
Pinchin (2019)										
MW01	1.5 - 4.6	80.9 - 77.8	Silt Till	1,2,4				✓	✓	✓
MW02	1.5 - 4.6	81.0 - 78.0	Silt Till	2	✓			✓	✓	✓
MW03	1.5 - 4.6	80.9 - 77.9	Silt Till	2,5	✓			✓	✓	✓
Grounded (2023)										
BH104	6.7 - 9.7	76.1 - 73.1	Shale	2,3,4	✓	✓	✓	✓	✓	✓
DUP (BH104)	6.7 - 9.7	76.1 - 73.1	Shale	2,3,4	✓	✓	✓	✓	✓	✓
BH106	4.9 - 7.9	77.6 - 74.6	Shale	2,3,5	✓	✓	✓	✓	✓	✓
BH107	6.5 - 9.5	75.9 - 72.8	Shale	1,2,3	✓	✓	✓	✓	✓	✓
Grounded (2024)										
BH202	7.0-10.1	75.5-72.4	Shale	5	✓	✓	✓	✓	✓	✓

*During the Pinchin (2019) investigation, groundwater samples were submitted for the following select metals: lead (Pb)
**Groundwater samples were submitted for the following select ORPs: Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)), low or high pH, Chloride (Cl)

Monitoring well BH201 was installed to assess the groundwater quality in the area of the former UST. Following several attempts to flush the monitoring well, the monitoring did not yield enough groundwater for sampling.

Field filtering as per the requirements of the MECP *"Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act"* July 2011, was completed.

4.4 Exemption of Exceedances (O.Reg. 153/04 Sec 49.1)

4.4.1 Exemption of Salt-Related Exceedances (Sec 49.1 (1))

Chemical analysis of the soil indicates that there are exceedances of the MECP Table 3 RPI Standards for Electrical Conductivity and Sodium Adsorption Ratio (salt related compound) within the upper soils and Chloride (salt related compound) within the groundwater.

The Property is bound by municipal roadways to the north (Lakeshore Road), south (Old Lakeshore Road), and west (Pearl Street). The roadways have public sidewalks between the road

and the Property boundary. The Property features construction vehicle traffic and car parking. The roadways, sidewalks, and parking area are all salted during the winter months for safety purposes.

The Qualified Person has determined, based on the Phase One Environmental Site Assessment and the Phase Two Environmental Site Assessment, that a substance (salt) has been applied to surfaces of the roadway, sidewalks, driveway and parking area for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (application of salt for safety purposes during winter months). As per O.Reg. 153/04 49.1 the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

4.5 Contaminants Associated with Each Area

The Contaminants of Concern (CoCs) identified in the fill above the applicable Site Condition Standards at the following APECs are listed below.

APEC 1	APEC 2	APEC 3	APEC 4	APEC 5
None	Metals	None	None	None

The Contaminants of Concern (CoCs) identified in the native above the applicable Site Condition Standards at the following APECs are listed below.

APEC 1	APEC 2	APEC 3	APEC 4	APEC 5
None	Cadmium Lead Zinc PHC (F3)	None	None	None

No Contaminants of Concerns (CoCs) in groundwater were associated with Areas of Potential Concerns (APECs) identified on the Property.

Based upon the soil and groundwater sampling conducted as part of the Phase Two investigation, there are CoCs above the MECP Table 3 RPI Standards at the locations of APEC 2 in the indicated location within the fill and native.

4.6 Medium in Which Contaminants are Associated

Fill, native soil and groundwater were investigated as part of the Phase Two ESA investigation. CoCs were identified in the following media for the contaminants listed.

Metals	H-Metals	ORPs	PAHs	PHCs	BTEX	VOCs
Fill Native	None	None	None	Native	None	None

Based upon the soil and groundwater sampling conducted as part of the Phase Two investigation, there are CoCs above the MECP Table 3 RPI Standards within the fill and native material identified on the Property.

4.7 Information Known about Each Contaminated Area

The metal and PHC (F3) impacts located in the northeast and west portions of the Property are likely attributed to the historical filling across the Property during the development and redevelopment of the Property in the early and late 1900s.

4.8 Distribution of Contaminant

The soil was found to be impacted by metals and PHCs. The distribution of each contaminant are as follows.

Contaminants	Distribution
Metal	The metal impacts have been vertically delineated in the upper soils on the Property and do not appear to extend to areas north and east of the current Site building.
PHCs	The PHC impacts have been vertically delineated in the upper soils, in the northeast corner of the Property. The impact has been horizontally delineated; impacts were not identified in soil samples from BH203, BH204, BH205 and BH206.

4.9 Reasons for Discharge of Contaminant

The origin of metals and PHCs can be attributed to likely attributed to the historical filling across the Property during the development and redevelopment of the Property in the early and late 1900s.

4.10 Migration of Contaminant

The contaminants could potentially migrate from the fill material into the native soil and groundwater via diffusion. The metals and PHC impacts were identified in the fill and/or native soils. Based on the results of the investigation no contaminants were identified in the groundwater.

4.11 Climatic or Meteorological Influences on Migration

Climatic or meteorological influence on migration of potential contamination of the Property was possible. Meteorological influences are likely the cause for the CoCs in the soil to have migrated from fill material and upper native soils into the lower native soils. However, as samples taken within the native material all met the Site Condition Standards the migration of contaminants is not of concern.

4.12 Soil Vapour Intrusion into Buildings

Semi-volatile contaminants were identified. As such, there is a small possibility for soil vapour intrusion of contaminants into buildings, though given the limited extent of the impact within the upper soil, vapour intrusion is not anticipated..

4.13 Relevant Construction Features of Buildings

One building was observed on the Property. The building was built prior to 1970 with an addition constructed in 1995.

Building #	Above Grade Levels	Below Grade Levels	Use	Entry/Exits
2072 Lakeshore Road	Two (2)	One (1)	Commercial (office)	Off of Lakeshore Road and Old Lakeshore Road

Building #	**2072 Lakeshore Road**
Walls	Dry wall, brick
Floors	Tile, carpet
Ceilings	Suspended ceiling tiles, possible asbestos

Lighting	Fluorescent/LED
Exterior	Brick, poured concrete
Roof (if accessed)	Not Accessed
Heating and Cooling System	Natural gas
Drains, Pits, Sumps Observed	No drains, pits, or sumps observed
Staining and Corrosion	No staining or corrosion observed
Air Emissions	No sources of air emissions were observed

4.14 Building HVAC

Current/future HVAC systems present in any buildings on the Property will not affect the distribution and transport of contaminants because no volatile CoCs were identified.

4.15 Subsurface Structures and Utilities

The site inspection of the Property and utility locates conducted as part of the Phase One ESA found the following information regarding utilities and services at the Property:

- Buried hydro enters the Property via the south boundary through Old Lakeshore Road
- Buried gas lines enter the Property via the south boundary through Old Lakeshore Road
- Buried communication lines enter the Property via the south boundary through Old Lakeshore Road
- Electrical lines enter the Property via the south boundary through Old Lakeshore Road

It is possible that the bedding materials for the underground utilities could serve as preferential pathways for the migration of CoPCs; however, as the stabilized water levels are within the bedrock, it is unlikely that the utilities will intersect the water table.

5 Potential Exposures Pathways and Receptors

5.1 Description of All Components

A list of all risk-based components of potential exposure pathways and receptors are presented below and presented on Figures 15 and 16.

Potential Pathway	Description
GW1	Groundwater for drinking water purposes
GW2	Groundwater for protection from movement to indoor air
GW3	Groundwater for protection of aquatic life
S1	Soil for protection of a residential receptor from direct contact with surface soil
S2	Soil for protection from direct soil contact for a lower frequency and intensity exposure than residential surface soil, such as commercial or industrial scenarios
S3	Soil for direct soil contact for a low-frequency, high-intensity, human health exposure scenario without children present that is protective of a worker digging in the soil
S-IA	Soil for protection of movement to indoor air and human exposure
S-OA	Soil for protection of movement to outdoor air and human exposure
S-Odour	Soil for protection of movement to outdoor air and human exposure
S-GW1	Soil for protection from movement to groundwater for drinking water purposes
S-GW3	Soil for protection from movement to groundwater and then to aquatic life
Plants and Soil Organisms	Soil for protection against adverse effects to plants and soil dwelling organisms
Mammals and Birds	Soil for protection against adverse effects through direct soil and food ingestion to mammals and birds

5.2 Receptor Human Health

Potential Pathway	Sources	CoCs from Phase Two ESA	Potential Risks (Yes/No)			
			Source	Pathway	Receptor	Risk
GW1	Contamination not present in groundwater	None	No	Yes	Yes	No Risk
GW2	Contamination not present in groundwater	None	No	Yes	Yes	No Risk
GW3	Contamination not present in groundwater	None	No	Yes	Yes	No Risk
S1	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S2	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S3	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S-IA	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S-OA	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S-Odour	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
S-GW1	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	No	No
S-GW3	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	No	No

5.3 Receptor Terrestrial Environment

Potential Pathway	Sources	CoCs from Phase Two ESA	Potential Risks (Yes/No)			
			Source	Pathway	Receptor	Risk
Plants and Soil Organisms	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes
Mammals and Birds	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	Yes	Yes

5.4 Receptor Aquatic Environment

Potential Pathway	Sources	CoCs from Phase Two ESA	Potential Risks (Yes/No)			
			Source	Pathway	Receptor	Risk
GW3	Contamination not present in groundwater	None	No	No	Yes	No Risk
S-GW3	Contamination present in fill material and native soils	Metals PHCs	Yes	Yes	No	No

5.5 Summary of Potential Receptor Risks

The Contaminants of Potential Concern identified in the Phase One ESA were found to be present on the Property above the applicable Site Condition Standards within the fill material and native soils. The lateral and vertical distribution of soil impacts is presented on Figure 6 to 11. As such a remediation or risk assessment (RA) of the impacted soil will be required to assess and mitigate any potential risk to the Human Receptor, the Terrestrial or the Aquatic Environment.