

# Phase Two Environmental Site Assessment 1820-1846 Bank Street, Ottawa, Ontario

#### Client:

Sun Life Assurance Company of Canada c/o BentallGreenOak (Canada) LP

#### Type of Document:

Final

#### **Project Name:**

Phase Two Environmental Site Assessment

## **Project Number:**

OTT-23002538-B0

Prepared By: Leah Wells, P.Eng.

Reviewed By: Chris Kimmerly, P.Geo.

EXP Services Inc. 100-2650 Queensview Drive Ottawa, Ontario K2B 8H6 t: +1.613.688.1899 f: +1.613.225.7337

Date Submitted:

September 30, 2024

# **Legal Notification**

This report was prepared by EXP Services Inc. for the account of Sun Life Assurance Company of Canada c/o BentallGreenOak (Canada) LP.

Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this project.



# **Executive Summary**

EXP Services Inc. (EXP) was retained by Sun Life Assurance Company of Canada c/o BentallGreenOak (Canada) LP to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 1820-1846 Bank Street in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a commercial strip mall and associated parking lot.

The objective of the Phase Two ESA investigation was to assess the quality of the soil and groundwater conditions within the areas of potential environmental concern (APEC) identified in a Phase One ESA prepared by EXP. EXP understands that the most recent use of the Phase One property is commercial and that the proposed future use is residential and commercial. Consequently, since the proposed future use of the property is more sensitive than its previous use, a Record of Site Condition (RSC) will be required.

The Phase Two property has the municipal addresses of 1820-1846 Bank Street in Ottawa, Ontario and is located on the northwest corner of the intersection of Bank Street and Walkley Road. The Phase Two property is irregular in shape with an approximate area of 1.74 hectares.

The Phase Two property is occupied by single-storey, slab-on-grade commercial buildings containing multiple units. The building has an approximately footprint of 3,925 square meters (42,240 square feet). As of December 2023, the building tenants included Value Village, Algonquin Careers Academy, Ruby Inn (restaurant), Bel-O-Sol (tanning salon), Savannah Afro Caribbean (retail), and Hera Beauty (retail).

The legal description of the Phase Two property is Part Lot 23, Concession Junction Gore, as in CT131445 and NS95310 Except Parts 16, 17 and 18 on Expropriation NS275909 and Parts 1, 2 and 3 on Plan 5R284; subject to OT55584 Ottawa/Gloucester. The property identification number (PIN) is 040690603.

Multiple previous investigations have been conducted at the Phase Two property. A limited Phase II ESA was conducted by JWEL in 1999 to address the dry-cleaning operations. Concentrations of volatile organic compounds (VOC) in exceedance of the Ministry of the Environment (MOE) applicable standards were present in the groundwater. In addition, the north adjacent property was historically occupied by an industrial plant (Westinghouse), and a dry-cleaning operation and several gas stations and repair garages were identified to the northeast and northwest of the Phase One property. As these operations were located inferred cross-gradient to the site, they were not anticipated the contribute to APEC.

In February 2002, a total of three boreholes were advanced at the site by Trow to approximately 6.4 metres below ground surface. All three of the boreholes were completed as monitoring wells. Subsurface stratigraphy generally consisted of sandy silt fill to approximately 0.6 m bgs, overlying native silty sand with some gravel. Highly fractured shale bedrock was encountered approximately 2.0 to 2.5 m bgs in all three boreholes. It is noted that all of the monitoring wells were installed in the bedrock. A total of three soil samples were submitted for analysis of VOC, and one soil sample was submitted for analysis of polycyclic aromatic hydrocarbons (PAH), and metals. Three groundwater samples were submitted for analysis of VOC, and one groundwater sample was also submitted for analysis of PAH and metals. One soil sample (MW 101), and one groundwater sample (MW 102) exceeded the applicable non-potable criteria for tetrachloroethylene (PCE).

In February 2002, Trow retained a video inspection company to conduct video imaging to assess the integrity of the sewers in/around the dry-cleaning unit. A floor drain was noted in the dry-cleaning unit which connected to the sanitary sewer. The video assessment of the sanitary sewer indicated that the condition of the sanitary sewer in the vicinity of the floor drain/toilet was in suspect condition and may be allowing seepage of wastewater to the subsurface beneath the building. Swab samples were also collected from the sanitary sewer pipe in the vicinity of the dry-cleaning machine and submitted for analysis of VOC. Results of the swab analysis indicated that trichloroethylene (TCE) and PCE were present in the sanitary sewer. It was inferred from these results that the former dry-cleaning machine was connected to the sanitary sewer and discharging waste PCE.



It was noted that a new dry-cleaning machine was installed in March 2002. It was noted that the new unit was self-contained and not connected to the municipal sewers. Waste PCE was stored in tanks that formed part of the machine and was removed from the site by a licensed contractor.

It was recommended that bi-annual groundwater sampling be conducted to monitor the concentrations of VOCs. It was recommended that the floor drain in the vicinity of the dry-cleaning machine be capped, as the new machine was selfcontained, and a sewer connection was no longer required. The 1999 JWEL monitoring well was decommissioned to prevent further migration of impacted groundwater.

An enhanced Phase I ESA investigation was conducted in 2013 by Pinchin. Three monitoring wells north of the dry-cleaning unit, and one monitoring well on the east part of the site in the area of the former gas station were sampled as part of this investigation. Groundwater samples were submitted for analysis of VOC and/or petroleum hydrocarbons (PHC). The groundwater samples were compared to the MECP Table 3 site condition standards (SCS) for commercial land use. All of the groundwater samples were within the Table 3 SCS. Based on the results of the groundwater sampling program, it was Pinchin's opinion that none of the on-site operations had resulted in any subsurface impacts. No additional subsurface investigation was recommended by Pinchin. Pinchin noted that, based on the age of the site building, there was potential for asbestos-containing materials to be present in the site-building.

EXP prepared a report entitled Phase One Environmental Site Assessment, 1820-1846 Bank Street, Ottawa, Ontario, dated September 30, 2024. The Phase One study area included the entire Phase Two property as well as properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified eleven APECs on the Phase One property. A summary is provided in the table below:

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#1. Former on-site dry- cleaner	North end of site building	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) (PCA 9)	On-site	VOC	Soil and groundwater
#2. Former on-site gas station	East part of Phase Two property	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 10)	On-site	PHC, VOC, metals	Soil and groundwater
#3. Former on-site rail siding	Northwest part of Phase Two property	PCA #46 – Rail yard, tracks, and spurs (PCA 1)	On-site	PAH, metals	Soil
#4. Fill material	Entire Phase Two property	PCA #30 – Importation of fill material of unknown quality (PCA 20)	On-site	PHC, PAH, metals	Soil
#5. Former dry cleaner at 1800 Bank Street & historical furnace oil leak from UST	Along north property line	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) and PCA #28 – Gasoline and associated products storage in fixed tanks (PCAs 10 & 11)	Off-site	PHC, VOC	Soil and groundwater
#6. Former gas station at 1841 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 3)	Off-site	PHC, VOC	Soil and groundwater



Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#7. Repair garage at 1841 Bank Street	Along southeast property line	PCA #10 – Commercial autobody shop (PCA 4)	Off-site	PHC, VOC, metals	Soil and groundwater
#8. Gas station at 1847 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 7)	Off-site	PHC, VOC	Soil and groundwater
#9. Former car dealership at 1850 Bank Street	Along south property line	PCA #10 – Commercial autobody shop (PCA 14)	Off-site	PHC, VOC, metals	Soil and groundwater
#10. Former USTs associated with car dealership at 1850 Bank Street	Along south property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 15)	Off-site	втех, рнс	Soil and groundwater
#11. Former rail line to the west of the site	Along west property line	PCA #46 – Rail yard, tracks, and spurs (PCA 2)	Off-site	PAH, metals	Soil

The Phase Two ESA was conducted in conjunction with a hydrogeological investigation and geotechnical investigation completed by EXP. The scope of work for the Phase Two ESA was as follows:

- Advancing eighteen boreholes on the subject property, and completing ten of them as monitoring wells (five shallow bedrock and five deep bedrock);
- Advancing six probe holes to confirm depth to bedrock in portions of the site;
- Submitting select soil samples for laboratory analysis of PHC fractions F1 to F4, VOC, PAH, metals and inorganics;
- Collecting four rounds of groundwater samples from the monitoring wells and submitting them for analysis of PHC, VOC, PAH, and/or metals;
- Comparing the results of the soil and groundwater chemical analyses to applicable criteria, as set out by the Ontario MECP;
- Conducting an elevation survey of the boreholes and monitoring wells;
- Preparing a report summarizing the results of the assessment activities.

For assessment purposes, EXP selected the Table 7 Generic Site Condition Standards for Shallow Soils in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional properties, Coarse Textured Soil. The selection of this category was based on the following factors:

The selection of these categories was based on the following factors:

- Bedrock is less than 2 metres below grade across 2/3 of the subject property;
- The Phase Two property is not located within 30 metres of a waterbody;
- The Phase Two property is not located within an area of natural significance, does not include nor is adjacent to an area of natural significance, and does not include land that is within 30 metres of an area of natural significance;
- The stratigraphy of the Site predominantly consists of coarse-textured soil, as per the grain size analysis. Results included in Appendix D;



- The Phase Two property is located in an area serviced with potable water by the City of Ottawa through its water distribution system;
- The proposed future use of the Phase Two property is residential and commercial; and.
- It is the opinion of the Qualified Person who oversaw this work that the Phase Two property is not a sensitive site.

Considering that the Site will likely be developed in stages and recognizing that the depth to bedrock varies across the Site, EXP also utilized the Table 3 Generic Site Condition Standards for Ful Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional properties, Coarse Textured Soil for portions of the Site where those standards apply.

Seventeen soil samples and three duplicate sample were submitted for analysis of PHC, VOC, PAH and metals and inorganics. The following exceedances of the MECP Table 7 residential SCS were noted:

	Parameter	Table 7 Residential SCS
voc	Tetrachloroethylene	BH/MW-1 SS3, BH/MW-3 SS1, BH/MW4 SS2
PHC	PHC F4	BH/MW9 AS1
	Benzo(a)anthracene	BH-6 SS1, BH/MW-7 SS2B
PAH	Benzo(a)pyrene	BH-6 SS1, BH/MW-7 SS2A, BH/MW7 SS2B
РАП	Benzo(b)fluoranthene	BH-6 SS1
	Fluoranthene	BH-6 SS1, BH/MW-7 SS2A, BH/MW-7 SS2B
Metals	Cobalt	BH/MW-1 SS3
	Electrical Conductivity	BH/MW-1 SS2
Inorganics	Sodium Adsorption Ratio	BH/MW-1 SS2 (and DUP 2), BH/MW-1 SS3, BH/MW-2 AS3, BH-6 SS1, BH-6 SS2, BH/MW-7 SS2A, BH/MW-7 SS2B, BH/MW-8 AS3, BH/MW-9 SS2, BH/MW-10 SS2 (and DUP 1), BH/MW-11 SS1, BH/MW-11 SS2 (and DUP 3)
	рН	DUP 2 (BH/MW-1 SS2)

In accordance with Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. Therefore, for the purpose of this investigation, the elevated EC and SAR in the soil samples collected are deemed not to exceed the Table 7 SCS.

Four rounds of groundwater monitoring have been undertaken with samples being submitted for chemical analysis of VOC, PHC, PAH and metals. The following Table 7 exceedances were noted:

	Parameter	Table 7 Residential SCS
	Chloroform	BH/MW-3, BH/MW-7
VOC	Hexane	BH/MW-8
VOC	Tetrachloroethylene, Trichloroethylene	BH/MW-3, BH/MW-12 (TCE)



	Benzene	BH/MW-8, BH/MW-10 (and DUP), BH/MW-12
DUC - BTEV	Ethylbenzene	BH/MW-8
PHC + BTEX	Xylenes	BH/MW-8
	PHC F1	BH/MW-8
Metals	Sodium	BH/MW-7

In accordance with Section 49.1.2 of O.Reg. 153/04, standards are deemed to be met if there has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002. As a municipal water source was used for bedrock coring, it is inferred that the municipal water is the source of the chloroform in the groundwater samples from BH/MW-3 and BH/MW-7, and the applicable SCS are deemed not to be exceeded for this parameter.

According to Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. As all of the monitoring wells were located in the parking lot, for the purpose of this investigation, the elevated sodium levels in the groundwater samples collected from BH/MW-7 are deemed not to exceed the Table 7 SCS.

A soil sample collected from BH/MW-9 exceeded Table 7 SCS for PHC, and groundwater collected from BH/MW-8 exceeded Table 7 SCS for PHC, benzene, hexane, and xylenes. This impact is likely associated with the operation of the former on-site gas station.

Groundwater samples collected from BH/MW-10 and BH/MW-12 exceeded the Table 7 SCS for benzene. The groundwater impact identified in BH/MW-10 may originate from an off-site source. Additional investigation is required.

Soil samples collected from BH/MW-1, BH/MW-3, and BH/MW-4 and groundwater samples collected from BH/MW-3 and BH/MW-12 exceeded the Table 7 SCS for TCE. This impact is inferred to be associated with the operation of the former onsite dry cleaner.

Soil samples collected from the BH-6 and BH/MW-7 exceeded the Table 7 SCS for PAH. No groundwater exceedances for PAH were present in any of the groundwater samples collected from the Phase Two property. The PAH impact is inferred to be associated with poor-quality fill material.

A soil sample collected from BH/MW-1 exceeded the Table 7 SCS for cobalt. This sample was collected from the highly weathered shale layer, and the exceedance is inferred to be associated with naturally elevated levels of cobalt in the Ottawa area.

Additional studies are planned to delineate the Table 7 and/or Table 3 exceedances such that an appropriate remedial strategy can be prepared in conjunction with the overall development approach for the site. Remedial efforts will coincide the phased approach to site development.

This executive summary is a brief synopsis of the report and should not be read in lieu of reading the report in its entirety.



# **Table of Contents**

Legal I	Notificat	on	
Execu	tive Sum	mary	i
List of	Figures.		)
List of	Append	Ces	)
1.0	Introd	uction	1
	1.1	Site Description	
	1.2	Property Ownership	
	1.3	Current and Proposed Future Use	
	1.4	Applicable Site Condition Standards	
2.0		round Information	
2.0	2.1	Physical Setting	
	2.2	Past Investigations	
2.0		-	
3.0		of the Investigation	
	3.1	Overview of Site Investigation	
	3.2	Scope of Work	
	3.3	Media Investigated	
	3.4	Phase One Conceptual Site Model	
		3.4.1 Buildings and Structures	
		3.4.2 Water Bodies and Groundwater Flow Direction	
		3.4.3 Areas of Natural Significance	
		3.4.4 Water Wells	
		3.4.5 Potentially Contaminating Activity	
		3.4.6 Areas of Potential Environmental Concern	
		3.4.7 Underground Utilities	
		3.4.8 Subsurface Stratigraphy	
		3.4.9 Uncertainty Analysis	
	3.5	Deviations from Sampling and Analysis Plan	
	3.6	Impediments	11
4.0	Invest	igation Method	12
	4.1	General	12
	4.2	Borehole Drilling	12
	4.3	Soil Sampling	12
	4.4	Groundwater: Monitoring Well Installation	13



	4.5	Groundwater: Field Measurement and Water Quality Parameters	13
	4.6	Groundwater: Sampling	13
	4.7	Sediment: Sampling	14
	4.8	Analytical Testing	14
	4.9	Residue Management	14
	4.10	Elevation Surveying	14
	4.11	Quality Assurance and Quality Control Measures	14
5.0	Reviev	v and Evaluation	16
	5.1	Geology	16
	5.2	Groundwater: Elevations and Flow Direction	16
	5.3	Groundwater: Hydraulic Gradients	18
	5.4	Soil: Quality	19
	5.5	Groundwater: Quality	20
		5.5.1 Chemical Transformation and Contaminant Sources	21
		5.5.2 Evidence of Non-Aqueous Phase Liquid	
		5.5.3 Maximum Concentrations	21
	5.6	Sediment: Quality	21
	5.7	Quality Assurance and Quality Control Results	21
6.0	Phase	Two Conceptual Site Model	23
	6.1	Introduction	23
	6.2	Current and Proposed Future Uses	23
	6.3	Site Description	23
	6.3.1	Buildings and Structures	24
	6.3.2	Utilities	24
	6.4	Geological and Hydrogeological Setting	24
	6.4.1	Site Stratigraphy	25
	6.4.2	Approximate Depth to Water Table	25
	6.4.3	Hydrogeological Conditions	25
	6.4.4	Approximate Depth to Bedrock	26
	6.4.5	Site Sensitivity	26
	6.5	Potentially Contaminating Activities	26
	6.6	Areas of Potential Environmental Concern	27
	6.7	Previous Investigations	28
	6.8	Scope of the Investigation	29
	681	Investigation	30



	6.8.2	Soil Sampling	31
	6.8.3	Groundwater Sampling	31
	6.8.4	Contaminants of Concern	32
	6.8.5	Contaminant Fate and Transport	33
	6.8.6	Preferential Pathways	33
	6.8.7	Climactic Conditions	33
	6.8.8	Human Health Receptors and Exposure Pathways	34
	6.8.9	Ecological Receptors and Exposure Pathways	34
7.0	Conclus	iion	35
3.0	Referer	nces	37
9.0	Genera	l Limitations	38
10.0	Signatu	res	30



# **List of Figures**

Figure 1 – Site Location Plan

Figure 2 – Phase One Conceptual Site Model

Figure 3 - Borehole Location Plan

Figure 3 b – Test Hole Location Plan (Bedrock Depths)

Figure 4A – Groundwater Contour Plan – Shallow Bedrock Wells

Figure 4B – Groundwater Contour Plan – Deep Bedrock Wells

Figure 5 – Cross Section Plan

Figure 6A - Cross Section A-A'

Figure 6B - Cross Sections B-B' & C-C'

Figure 7 – Soil Analytical Results – PHC & VOC

Figure 8 - Soil Analytical Results - PAH

Figure 9 – Soil Analytical Results – Metals

Figure 10 – Soil Cross Sections – PHC & VOC

Figure 11 - Soil Cross Sections - PAH

Figure 12 – Soil Cross Sections – Metals

Figure 13 – Groundwater Analytical Results – PHC & VOC

Figure 14 - Groundwater Analytical Results - PAH

Figure 15 – Groundwater Analytical Results – Metals

Figure 16 – Groundwater Cross Sections – PHC & VOC

Figure 17 – Groundwater Cross Sections – PAH

Figure 18 - Groundwater Cross Section - Metals

# **List of Appendices**

Appendix A: Figures Appendix B: Survey Plan

Appendix C: Sampling and Analysis Plan

Appendix D: Grain Size Analysis

Appendix E: Borehole Logs

Appendix F: Analytical Summary Tables

Appendix G: Laboratory Certificates of Analysis



#### Introduction 1.0

EXP Services Inc. (EXP) was retained by Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 1820-1846 Bank Street in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a commercial strip mall and associated parking lot.

The objective of the Phase Two ESA investigation was to assess the quality of the soil and groundwater conditions within the areas of potential environmental concern (APEC) identified in a Phase One ESA prepared by EXP. EXP understands that the most recent use of the Phase One property is commercial and that the proposed future use is residential and commercial. Consequently, since the proposed future use of the property is more sensitive than its previous use, a Record of Site Condition (RSC) will be required.

This report has been prepared in accordance with the Phase Two ESA standard as defined by Ontario Regulation 153/04 (as amended), and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 8 of this report.

#### 1.1 Site Description

The Phase Two property has the municipal addresses of 1820-1846 Bank Street in Ottawa, Ontario and is located on the northwest corner of the intersection of Bank Street and Walkley Road. The Phase Two property is irregular in shape with an approximate area of 1.74 hectares. The Phase Two property site location and site layout are shown on Figure 1 and 2 in Appendix A.

The Phase Two property is occupied by single storey, slab on grade commercial buildings containing multiple units. The building has an approximately footprint of 3,925 square meters (42,240 square feet). As of December 2023, the building tenants included Value Village, Algonquin Careers Academy, Ruby Inn (restaurant), Bel-O-Sol (tanning salon), Savannah Afro Caribbean (retail), and Hera Beauty (retail).

The legal description of the Phase Two property is Part Lot 23, Concession Junction Gore, as in CT131445 and NS95310 Except Parts 16, 17 and 18 on Expropriation NS275909 and Parts 1, 2 and 3 on Plan 5R284; subject to OT55584 Ottawa/Gloucester. The property identification number (PIN) is 040690603.

Refer to Table 1.1 for the Site identification information.

**Table 1.1: Site Identification Details** 

Civic Address	1820-1846 Bank Street, Ottawa, Ontario
Current Land Use	Commercial
Proposed Future Land Use	Residential and commercial
Property Identification Number	040690603
UTM Coordinates	Zone 18, 447944 m E and 5024339 m N
Site Area	1.74 hectares
Property Owner	Sun Life Assurance Company of Canada

A survey plan of the Phase Two property was completed by Annis, O'Sullivan, Vollebeck Ltd. in December 2017. A copy of the survey plan is provided in Appendix B.



### 1.2 Property Ownership

The registered owner of the Phase Two property is Sun Life Assurance Company of Canada. Authorization to proceed with this investigation was provided by Mr. Dylan Gillingham of BentallGreenOak on behalf of Sun Life Assurance Company of Canada. Contact information for Mr. Gillingham is 1875 Buckhorn Gate, Suite 601, Mississauga, Ontario, L4W 5P1.

#### 1.3 Current and Proposed Future Use

The most recent use of the Phase One property is commercial and that the proposed future use is residential and commercial. Consequently, since the proposed future use of the property is more sensitive than its previous use an RSC will be required.

## 1.4 Applicable Site Condition Standards

Analytical results obtained for soil and groundwater samples were compared to Site Condition Standards (SCS) established under subsection 169.4(1) of the Environmental Protection Act, and presented in the document entitled *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*, 2011. This document provides tabulated background SCS (Table 1) applicable to environmentally sensitive sites and effects-based generic SCS (Tables 2 to 9) applicable to non-environmentally sensitive sites. The effects-based SCS (Tables 2 to 9) are protective of human health and the environment for different groundwater conditions (potable and non-potable), land use scenarios (residential, parkland, institutional, commercial, industrial, community and agricultural/other), soil texture (coarse or medium/fine) and restoration depth (full or stratified).

Table 1 to 9 SCS are summarized as follows:

- Table 1 applicable to sites where background concentrations must be met (full depth), such as sensitive sites where site-specific criteria have not been derived
- Table 2 applicable to sites with potable groundwater and full depth restoration
- Table 3 applicable to sites with non-potable groundwater and full depth restoration
- Table 4 applicable to sites with potable groundwater and stratified restoration
- Table 5 applicable to sites with non-potable groundwater and stratified restoration
- Table 6 applicable to sites with potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 7 applicable to sites with non-potable groundwater and shallow soils (bedrock encountered at depths of 2 metres or less across one-third or more of the site)
- Table 8 applicable to sites with potable groundwater and that are within 30 m of a water body
- Table 9 applicable to sites with non-potable groundwater and that are within 30 m of a water body

Application of the generic or background SCS to a specific site is based on a consideration of site conditions related to soil pH, thickness and extent of overburden material, and proximity to an area of environmental sensitivity or of natural significance. For some chemical parameters, consideration is also given to soil textural classification with SCS having been derived for both coarse and medium-fine textured soil conditions.

For assessment purposes, EXP selected the Table 7 Generic Site Condition Standards for Shallow Soils in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional properties, Coarse Textured Soil. The selection of this category was based on the following factors:

The selection of these categories was based on the following factors:

Bedrock is less than 2 metres below grade across 2/3 of the subject property;



- The Phase Two property is not located within 30 metres of a waterbody;
- The Phase Two property is not located within an area of natural significance, does not include nor is adjacent to an area of natural significance, and does not include land that is within 30 metres of an area of natural significance;
- The stratigraphy of the Site predominantly consists of coarse textured soil, as per the grain size analysis. Results included in Appendix D;
- The Phase Two property is located in an area serviced with potable water by the City of Ottawa through its water distribution system;
- The proposed future use of the Phase Two property is residential and commercial; and.
- It is the opinion of the Qualified Person who oversaw this work that the Phase Two property is not a sensitive site.

Considering that the Site will likely be developed in stages and recognizing that the depth to bedrock varies across the Site, EXP also utilized the Table 3 Generic Site Condition Standards for Ful Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional properties, Coarse Textured Soil for portions of the Site where those standards apply.



# 2.0 Background Information

#### 2.1 Physical Setting

The Phase Two property has the municipal addresses of 1820-1846 Bank Street in Ottawa, Ontario and is located on the northwest corner of the intersection of Bank Street and Walkley Road. The Phase Two property is irregular in shape with an approximate area of 1.74 hectares.

The Phase Two property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the Phase Two property, are supplied by a municipal drinking water system provided by the City of Ottawa. Further, the Phase Two property is not located in an area designated in the municipal official plan as a well-head protection area and no properties within the Phase Two study area have a well that is being used or is intended for use as a source of potable water. Thus, in accordance with Section 35 of Ontario Regulation 153/04, non-potable water standards apply to the Phase Two property.

In accordance with Section 41 of the Ontario Regulation 153/04 (as amended), the Phase Two property is not an environmentally sensitive area. In addition, the Phase Two property is not located within an area of natural significance and it does not include land that is within 30 metres of an area of natural significance.

Based on the Phase Two ESA investigation, the depth to bedrock varies across the Site, fluctuating greater than and less than 2 m. Portions of the property is considered a shallow soil property as defined in Section 43.1 of the regulation as more than 1/3 of the whole Phase Two property has less than 2 metres of soil. Considering that the property may be developed in stages, portions of the Site may be severed during redevelopment, such that the full depth standards may apply.

Beneath any fill, the surficial geology of the subject site is characterised by Champlain Sea fine textured glacimarine deposits of silt and clay. The bedrock geology underlying the site consists of shale of the Carlsbad Formation. Previous investigations have determined that the site geology generally consists of clay, sand and gravel fill overlying shale bedrock. Bedrock is present between 0.9 m and 2.7 metres below ground surface across the Phase Two property (Figure 3 b). Topographically, the Phase Two property is relatively flat. Regionally, topography slopes to the west towards Sawmill Creek. Ground surface elevation at the Phase Two property is approximately 90 metres above sea level.

The inferred groundwater flow direction is to the north-northwest towards the Rideau River.

#### 2.2 Past Investigations

Multiple previous investigations have been conducted at the Phase Two property. A limited Phase II ESA was conducted by JWEL in 1999 to address the dry-cleaning operations. Concentrations of volatile organic compound (VOC) in exceedance of the Ministry of the Environment (MOE) applicable standards were present in the groundwater. In addition, the north adjacent property was historically occupied by an industrial plant (Westinghouse), and a dry-cleaning operation and several gas stations and repair garages were identified to the northeast and northwest of the Phase One property. As these operations were located inferred cross-gradient to the site, they were not anticipated the contribute to areas of potential environmental concern (APEC).

In February 2002, a total of three boreholes were advanced at the site by Trow to approximately 6.4 metres below ground surface. All three of the boreholes were completed as monitoring wells. Subsurface stratigraphy generally consisted of sandy silt fill to approximately 0.6 m bgs, overlying native silty sand with some gravel. Highly fractured shale bedrock was encountered approximately 2.0 to 2.5 m bgs in all three boreholes. It is noted that all of the monitoring wells were installed in the bedrock. A total of three soil samples were submitted for analysis of VOC, one soil sample was submitted for analysis of polycyclic aromatic hydrocarbons (PAH), and metals. Three groundwater samples were submitted for analysis of VOC, and one groundwater sample was also submitted for analysis of PAH and metals. One soil sample (MW 101), and one groundwater sample (MW 102) exceeded the applicable non-potable criteria for PCE.



In February 2002, Trow retained a video inspection company to conduct video imaging to assess the integrity of the sewers in/around the dry-cleaning unit. A floor drain was noted in the dry-cleaning unit which connected to the sanitary sewer. The video assessment of the sanitary sewer indicated that the condition of the sanitary sewer in the vicinity of the floor drain/toilet was in suspect condition and may be allowing seepage of wastewater to the subsurface beneath the building. Swab samples were also collected from the sanitary sewer pipe in the vicinity of the dry-cleaning machine and submitted for analysis of VOC. Results of the swab analysis indicated that trichloroethylene (TCE) and PCE were present in the sanitary sewer. It was inferred from these results that the former dry-cleaning machine was connected to the sanitary sewer and discharging waste PCE.

It was noted that a new dry-cleaning machine was installed in March 2002. It was noted that the new unit was self-contained and not connected to the municipal sewers. Waste PCE was stored in tanks that formed part of the machine and is removed from site by a licensed contractor.

It was recommended that bi-annual groundwater sampling be conducted to monitor the concentrations of VOCs. It was recommended that the floor drain in the vicinity of the dry-cleaning machine be capped, as the new machine was selfcontained, and a sewer connection was no longer required. The 1999 JWEL monitoring well was decommissioned to prevent further migration of impacted groundwater.

An enhanced Phase I ESA investigation was conducted in 2013 by Pinchin. Three monitoring wells north of the dry-cleaning unit, and one monitoring well on the east part of the site in the area of the former gas station were sampled as part of this investigation. Groundwater samples were submitted for analysis of VOC and/or petroleum hydrocarbons (PHC). The groundwater samples were compared to the MECP Table 3 site condition standards (SCS) for commercial land use. All of the groundwater samples were within the Table 3 SCS. Based on the results of the groundwater sampling program, it was Pinchin's opinion that none of the on-site operations had resulted in any subsurface impacts. No additional subsurface investigation was recommended by Pinchin. Pinchin noted that, based on the age of the site building, there was potential for asbestos containing materials to be present in the site building.

Most recently, EXP prepared a report entitled Phase One Environmental Site Assessment, 1820-1846 Bank Street, Ottawa, Ontario, dated August 14, 2023. The Phase One study area included the entire Phase Two property as well as properties within 250 m of the Phase Two property. Based on the results of the Phase One ESA, EXP identified eleven APECs on the Phase One property. A summary is provided in Table 2.1.

Table 2.1: Findings of Phase One ESA

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#1. Former on-site dry- cleaner	North end of site building	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) (PCA 9)	On-site	VOC	Soil and groundwater
#2. Former on-site gas station	East part of Phase Two property	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 10)	On-site	PHC, VOC, metals	Soil and groundwater
#3. Former on-site rail siding	Northwest part of Phase Two property	PCA #46 – Rail yard, tracks, and spurs (PCA 1)	On-site	PAH, metals	Soil
#4. Fill material	Entire Phase Two property	PCA #30 – Importation of fill material of unknown quality (PCA 20)	On-site	PHC, PAH, metals	Soil



Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#5. Former dry cleaner at 1800 Bank Street & historical furnace oil leak from UST	Along north property line	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) and PCA #28 – Gasoline and associated products storage in fixed tanks (PCAs 10 & 11)	Off-site	PHC, VOC	Soil and groundwater
#6. Former gas station at 1841 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 3)	Off-site	PHC, VOC	Soil and groundwater
#7. Repair garage at 1841 Bank Street	Along southeast property line	PCA #10 – Commercial autobody shop (PCA 4)	Off-site	PHC, VOC, metals	Soil and groundwater
#8. Gas station at 1847 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 7)	Off-site	PHC, VOC	Soil and groundwater
#9. Former car dealership at 1850 Bank Street	Along south property line	PCA #10 – Commercial autobody shop (PCA 14)	Off-site	PHC, VOC, metals	Soil and groundwater
#10. Former USTs associated with car dealership at 1850 Bank Street	Along south property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 15)	Off-site	BTEX, PHC	Soil and groundwater
#11. Former rail line to the west of the site	Along west property line	PCA #46 – Rail yard, tracks, and spurs (PCA 2)	Off-site	PAH, metals	Soil

The locations of the APEC are shown on Figure 3 in Appendix A.



# 3.0 Scope of the Investigation

#### 3.1 Overview of Site Investigation

The objective of the Phase Two ESA was to assess the quality of soil and groundwater quality on the Phase Two property. The field program was conducted in conjunction with geotechnical and hydrogeological investigations.

The most recent use of the was commercial, and it is proposed that residential and commercial buildings be constructed on the Phase Two property. As the proposed land use is more sensitive than the previous land use, an RSC will be required as per O. Reg. 153/04.

## 3.2 Scope of Work

As mentioned above, the Phase Two ESA was conducted in conjunction with a hydrogeological investigation and geotechnical investigation completed by EXP. The scope of work for the Phase Two ESA was as follows:

- Advancing eighteen boreholes on the subject property, and completing ten of them as monitoring wells (five shallow bedrock and five deep bedrock);
- Advancing six probe holes to determine depth to bedrock at various locations;
- Submitting select soil samples for laboratory analysis of PHC fractions F1 to F4, VOC, PAH, metals and inorganics;
- Collecting four rounds of groundwater samples from the monitoring wells and submitting them for analysis of PHC,
   VOC, PAH, and metals;
- Comparing the results of the soil and groundwater chemical analyses to applicable criteria, as set out by the Ontario MECP;
- Conducting an elevation survey of the boreholes;
- Preparing a report summarizing the results of the assessment activities.

This report has been prepared in accordance with the Phase Two ESA standard as defined by Ontario Regulation 153/04 (as amended), and in accordance with generally accepted professional practices. Subject to this standard of care, EXP makes no express or implied warranties regarding its services and no third-party beneficiaries are intended. Limitation of liability, scope of report and third-party reliance are outlined in Section 8 of this report.

#### 3.3 Media Investigated

The Phase Two ESA included the investigation of soil and groundwater on the Phase Two property. There are no waterbodies on the Phase Two property, therefore sediment or surface water sampling was not required.

The contaminants of potential concern (COPC) identified in the Phase One ESA were identified as target parameters for this Phase Two ESA. The APEC and COPC identified in the Phase One ESA are outlined in Section 2.2.

#### 3.4 Phase One Conceptual Site Model

The Phase One conceptual site model (CSM) was developed by considering the following physical characteristics and pathways. The CSM showing the topography of the site, inferred groundwater flow, general site features, APEC, and PCA is shown in Figure 2 in Appendix A.



### 3.4.1 Buildings and Structures

The Phase Two property is occupied by single storey, slab on grade commercial buildings containing multiple units. The building has an approximately footprint of 3,925 square meters (42,240 square feet). As of December 2023, the building tenants included Value Village, Algonquin Careers Academy, Ruby Inn (restaurant), Bel-O-Sol (tanning salon), Savannah Afro Caribbean (retail), and Hera Beauty (retail). Outside of the building footprint, the Phase Two property mainly consists of asphalt parking lot.

#### 3.4.2 Water Bodies and Groundwater Flow Direction

There are no water bodies on the subject site. The closest body of water is Sawmill Creek, located approximately 300 m west of the Phase Two property. Sawmill Creek flows to the north towards the Rideau River. The inferred groundwater flow direction is to the north-northwest towards the Rideau River.

#### 3.4.3 Areas of Natural Significance

There are no ANSI within the Phase Two study area.

#### 3.4.4 Water Wells

There were 52 well records for the Phase Two study area. None of the well records appear to be for the Phase Two property, although historically there were monitoring wells present on the site.

Eighteen of the records were for water supply wells installed between 1949 and 1959. As municipal services are no present in the study area, it is unlikely that these wells are still in use.

The remaining well records were for monitoring wells. There were 17 records for the installation/abandonment of monitoring wells at 1841 Bank Street. Ten of the records were for monitoring wells installed by the city in the Bank Street right-of-way between Surrey Avenue and Alta Vista Drive.

#### 3.4.5 Potentially Contaminating Activity

Based on the Phase One ESA, the following PCAs were identified:

- PCA 1: 1822 Bank Street former on-site rail siding (PCA #46)
- PCA 2: Glenhaven Private former rail line (PCA #46)
- PCA 3: 1841 Bank Street former gas station (PCA #28)
- PCA 4: 1841 Bank Street active repair garage (PCA #10)
- PCA 5: 1827 (1811 Bank Street former contractor's repair garage (PCA #10)
- PCA 6: 1827 (1811) Bank Street former UST (PCA #28)
- PCA 7: 1847 Bank Street active gas station (PCA #28)
- PCA 8: 1877 Bank Street former gas station (PCA #28)
- PCA 9: 1846 Bank Street (Phase Two property) former dry cleaner (PCA #37)
- PCA 10: 1832 Bank Street (Phase Two property) former gas station (PCA #28)
- PCA 11: 1800 Bank Street former dry cleaner (PCA #37) and historical furnace oil UST leak
- PCA 12: 1811 Bank Street car dealership with repair garage (PCA #10)



- PCA 13: 1811 Bank Street gasoline and waste oil USTs for car dealership (PCA #28)
- PCA 14: 1850 Bank Street former car dealership with repair garage (PCA #10)
- PCA 15: 1850 Bank Street Former gasoline and waste oil USTs (PCA #28)
- PCA 16: 1792 Bank Street active repair garage (PCA #10)
- PCA 17: 1792 Bank Street former gas station (PCA #28)
- PCA 18: 1770 Bank Street car dealership with repair garage (PCA #10)
- PCA 19: 1770 Bank Street gasoline and waste oil UST for car dealership/repair garage (PCA #28)
- PCA 20: 1820-1846 Bank Street fill material of unknown quality (PCA #30)
- PCA 21: 2629 Alta Vista Drive dry cleaner (PCA #37)
- PCA 22: 2706 Alta Vista Drive dry cleaner (PCA #37)
- PCA 23: 1750 Bank Street former repair garage (PCA #10)
- PCA 24: 1750 Bank Street former gas stations (PCA #28)
- PCA 25: 1750 Bank Street former dry cleaner (PCA #37)

All of the on-site PCAs were determined to result in APECs. A dry cleaner (PCA 9) operated in the northernmost unit from the 1970s until 2018. A gas station (PCA 10) was present on the east part of the site for a brief period in the 1970s. Previous investigations conducted on this part of the site identified tetrachloroethylene (PCE) impacted soil and groundwater, although it is noted that the most recent investigation conducted by Pinchin Limited did not identify any exceedances of the applicable standards in the monitoring wells sampled near the former on-site dry cleaner or gas station. The previous investigation also identified between 0.9 m and 2 m of fill material on the Phase One property (PCA 20). A rail siding (PCA 1) was historically located on the Phase Two property prior to the construction of the existing site building.

With respect to off-site PCAs, due to the proximity and/or inferred upgradient location from the Phase Two property, the gas stations at 1841 and 1847 Bank Street, the repair garages/car dealerships at 1841 and 1850 Bank Street, the former rail line to the west, and the former dry cleaner at 1800 Bank Street were considered to contribute to APECs on the Phase Two property.

The remaining PCAs identified in the study area were located at least 100 m from the Phase Two property and/or down/cross-gradient to the Phase Two property and were not considered to contribute to APECs on the Phase Two property.

#### 3.4.6 Areas of Potential Environmental Concern

The APEC identified are summarized in Table 3.1.

**Table 3.1: Areas of Potential Environmental Concern** 

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#1. Former on-site dry- cleaner	North end of site building	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) (PCA 9)	On-site	VOC	Soil and groundwater



Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#2. Former on-site gas station	East part of Phase Two property	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 10)	On-site	PHC, VOC, metals	Soil and groundwater
#3. Former on-site rail siding	Northwest part of Phase Two property	PCA #46 – Rail yard, tracks, and spurs (PCA 1)	On-site	PAH, metals	Soil
#4. Fill material	Entire Phase Two property	PCA #30 – Importation of fill material of unknown quality (PCA 20)	On-site	PHC, PAH, metals	Soil
#5. Former dry cleaner at 1800 Bank Street & historical furnace oil leak from UST	Along north property line	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) and PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 10 & 11)	Off-site	PHC, VOC	Soil and groundwater
#6. Former gas station at 1841 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 3)	Off-site	PHC, VOC	Soil and groundwater
#7. Repair garage at 1841 Bank Street	Along southeast property line	PCA #10 – Commercial autobody shop (PCA 4)	Off-site	PHC, VOC, metals	Soil and groundwater
#8. Gas station at 1847 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 7)	Off-site	PHC, VOC	Soil and groundwater
#9. Former car dealership at 1850 Bank Street	Along south property line	PCA #10 – Commercial autobody shop (PCA 14)	Off-site	PHC, VOC, metals	Soil and groundwater
#10. Former USTs associated with car dealership at 1850 Bank Street	Along south property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 15)	Off-site	втех, рнс	Soil and groundwater
#11. Former rail line to the west of the site	Along west property line	PCA #46 – Rail yard, tracks, and spurs (PCA 2)	Off-site	PAH, metals	Soil

## 3.4.7 Underground Utilities

The Site is serviced with municipal sewer and water, hydro and natural gas. Sanitary and storm sewer lines are present throughout the Phase One property.

The locations of the utilities on the Phase Two property are shown on Figure 5.

#### Subsurface Stratigraphy 3.4.8

Beneath any fill, the surficial geology of the subject site is characterised by Champlain Sea fine textured glacimarine deposits of silt and clay. The bedrock geology underlying the site consists of shale of the Carlsbad Formation.



Previous investigations have determined that the site geology generally consists of clay, sand and gravel fill overlying shale bedrock. Bedrock is present between 0.9 m and 2 metres below ground surface across the Phase Two property.

Topographically, the Phase Two property is relatively flat. Regionally, topography slopes to the west towards Sawmill Creek. Ground surface elevation at the Phase Two property is approximately 90 metres above sea level.

#### 3.4.9 Uncertainty Analysis

The CSM is a simplification of reality, which aims to provide a description and assessment of any areas where potentially contaminating activity that occurred within the Phase Two study area may have adversely affected the Phase Two property. All information collected during this investigation, including records, interviews, and site reconnaissance, has contributed to the formulation of the CSM.

Information was assessed for consistency, however EXP has confirmed neither the completeness nor the accuracy of any of the records that were obtained or of any of the statements made by others. All reasonable inquiries to obtain accessible information were made, as required by Schedule D, Table 1, Mandatory Requirements for Phase Two Environmental Site Assessment Reports. The CSM reflects our best interpretation of the information that was available during this investigation.

## 3.5 Deviations from Sampling and Analysis Plan

The field investigative and sampling program was carried out following the requirements of the Phase Two property, as described in Section 4.

The SAAP indicated that eighteen boreholes would be advanced at the site. Due to conflict with existing utilities, one of the boreholes (BH-5) was not completed.

#### 3.6 Impediments

No impediments were encountered during this investigation.



# 4.0 Investigation Method

#### 4.1 General

The current investigation was performed following requirements given under Ontario Regulation 153/04 and in accordance with generally accepted professional practices.

The site investigative activities were conducted in conjunction with a hydrogeological investigation and geotechnical investigation and consisted of the advancement of boreholes on the site to facilitate the collection of soil and groundwater samples for visual inspection and chemical analyses.

Prior to the commencement of excavating, the locations of underground public utilities including telephone, natural gas and electrical lines were marked at the subject property by public locating companies. A private utility locating contractor was also retained to clear the individual borehole locations.

#### 4.2 Borehole Drilling

The site investigative activities consisted of the drilling of boreholes to facilitate the collection of soil samples for visual inspection and chemical analysis. Select boreholes were instrumented with monitoring wells to facilitate the collection of groundwater samples.

The borehole locations were selected to address the APECs identified in the Phase One ESA, and to provide site coverage for geotechnical purposes. The exterior drilling program was completed between October 26 and November 3, 2023, by George Downing Estate Drilling Ltd. (Downing), a licensed well contractor. Downing advanced fifteen geotechnical boreholes (BH/MW-1, BH/MW-2, BH-6 to BH-18) across the Phase Two property, using a CME-75 truck mounted drill. On December 13 and 14, 2023, Strata Drilling Group (Strata) completed two interior environmental boreholes (BH-3 and BH-4) inside the former dry cleaner using a Geoprobe model 450 using direct push sampling for the overburden soils and cored the bedrock using a Hilti drill using an N-size core barrel.

BH/MW-1 to BH/MW-7 and BH/MW-11 to BH-18 the boreholes were extended past the depth of refusal through rock coring to termination depths of 2.6 m to 14.9 metres below ground surface. Monitoring wells diameter of either thirty-two (32) mm, thirty-eight (38) mm or fifty (50) mm diameter were installed in BH/MW-1, BH/MW-2, BH/MW-7 to BH/MW-12 and BH/MW-15 for long-term monitoring of the groundwater levels as well as groundwater sampling. The boreholes were backfilled upon completion of drilling. In addition, six probe holes were advance to determine the depth to bedock in certain portions of the site.

EXP staff continuously monitored the drilling activities to log the stratigraphy observed, to record the depth of soil sample collection, to record total depths of excavation, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix E. Nitrile gloves (i.e., one pair per sample) were used during sample handling. No petroleum-based greases or solvents were used during drilling activities.

The locations and geodetic elevations of the boreholes were established by a survey crew from EXP and are shown in Figure 3 and 3b.

#### 4.3 Soil Sampling

The soil sampling during the completion of this Phase Two ESA was undertaken in general accordance with the SAAP presented in Appendix C.

Soil samples were selected for laboratory analysis based on visual and olfactory evidence of impacts, where observed. Soil samples identified for possible laboratory analysis were placed directly into pre-cleaned, laboratory-supplied glass sample jars/vials. Samples to be analysed for PHC fraction F1 and BTEX were collected using a soil core sampler and placed into vials



containing methanol as a preservative. The jars and vials were sealed with Teflon-lined lids to minimize headspace and reduce the potential for induced volatilization during storage/transport prior to analysis. All soil samples were placed in clean coolers containing ice prior to and during transportation to the subcontract laboratory, Bureau Veritas Laboratories (BV Labs) of Ottawa, Ontario. The samples were transported/submitted within 24 hours of collection to the laboratory following chain of custody protocols for chemical analysis. Soil samples were submitted for laboratory analysis of PHC, VOC, PAH, and metals and inorganics.

#### 4.4 Groundwater: Monitoring Well Installation

Monitoring wells were installed in general accordance with the Ontario Water Resources Act - R.R.O. 1990, Regulation 903 (as amended). The monitoring wells consisted of a 52 mm diameter Schedule 40 PVC screen that was no more than 3.0 m long and a 32-, 38- or 52-mm diameter Schedule 40 PVC riser pipe that was at least 0.8 m long. The annular space around the wells was backfilled with sand to an average height of 0.3 m above the top of the screen. A bentonite seal was added from the top of the sand pack to approximately 0.3 m below ground surface. The monitoring wells were completed with flush mount casings. Monitoring wells were installed in BH/MW-1, BH/MW-2, BH/MW-7 to BH/MW-12 and BH/MW-15.

Measures taken to minimize the potential for cross contamination or the introduction of contaminants during well construction included:

- The use of well pipe components (e.g. riser pipe and well screens) with factory machined threaded flush coupling
  joints
- Construction of wells without the use of glues or adhesives
- Removing the protective plastic wraps from well components at the time of borehole insertion to prevent contact with the ground and other surfaces
- Cleaning or disposal of drilling equipment between sampling locations

Details of the monitoring well installations are shown on the borehole logs provided in Appendix E.

#### 4.5 Groundwater: Field Measurement and Water Quality Parameters

Field measurement of water quality parameters is described in Section 4.7.

All measurements of petroleum vapours in the monitor riser were made with an RKI Eagle 2 in methane elimination mode. Immediately after removing the well cap, the collection tube of the Eagle was inserted into the riser and the peak instrument reading was recorded. EXP used a Heron water level tape to measure the static water level in each monitoring well. The measuring tape was cleaned with phosphate-free soap and tap water, rinsed with distilled water after each measurement.

#### 4.6 Groundwater: Sampling

All groundwater samples were collected via a low flow sampling technique using a Horiba U-52 multi probe water quality meter. The U-52 probe was calibrated using in-house reference standards. Prior to collecting the groundwater samples, water quality field parameters (turbidity, dissolved oxygen, conductivity, temperature, pH, and oxidation reduction potential) were monitored until stable readings were achieved to ensure that the samples collected were representative of actual groundwater conditions. These parameters are considered to be stable when three consecutive readings meet the following conditions:

- Turbidity: within 10% for values greater than 5 nephelometric turbidity units (NTU), or three values less than 5 NTU;
- Dissolved oxygen: within 10% for values greater than 0.5 mg/L, or three values less than 0.5 mg/L;
- Conductivity: within 3%;



- Temperature: ± 1°C;
- pH: ± 0.1 unit; and,
- Oxidation reduction potential: ±10 millivolts.

When stabilization occurs, equilibrium between groundwater within a monitor and the surrounding formation water is attained. As such, samples collected when stabilization occurs are considered to be representative of formation water.

The groundwater sampling during the completion of this Phase Two ESA was undertaken in general accordance with industry standards. The groundwater samples were placed in clean coolers containing ice packs prior to and during transportation to the laboratory. The samples were transported to the laboratory within 24 hours of collection with a chain of custody.

#### 4.7 Sediment: Sampling

There are no waterbodies present on the Phase Two property, therefore sediment sampling was not required.

#### 4.8 Analytical Testing

The contracted laboratory selected to perform chemical analysis on all soil and groundwater samples was BV Labs. BV Labs is accredited laboratories under the Standards Council of Canada/Canadian Association for Laboratory Accreditation in accordance with ISO/IEC 17025:1999- General Requirements for the Competence of Testing and Calibration Laboratories.

#### 4.9 Residue Management

Boreholes were backfilled with soil cuttings upon completion. The soil cuttings from monitoring well installations and purged water from groundwater development and sampling were placed in drums on the Phase Two property. The drums were collected by Clean Water Works on November 20, 2023. Fluids from cleaning drilling equipment were disposed of by the driller at their facility.

#### 4.10 Elevation Surveying

An elevation survey was conducted by EXP. The ground surface elevation of each monitoring well location was surveyed relative to a geodetic reference. The Universal Transverse Mercator (UTM) coordinates of each monitoring well were also recorded so that their locations could be plotted accurately.

#### 4.11 Quality Assurance and Quality Control Measures

All soil and groundwater samples were placed in coolers containing ice packs prior to and during transportation to the contract laboratory. BV Labs is accredited to the ISO/IEC 17025:2005 standard - *General Requirements for the Competence of Testing and Calibration Laboratories*.

A QA/QC program was also implemented to ensure that the analytical results received are accurate and dependable. A QA/QC program is a system of documented checks that validate the reliability of the data. Quality Assurance is a system that ensures that quality control procedures are correctly performed and documented. Quality Control refers to the established procedures observed both in the field and in the laboratory, designed to ensure that the resulting end data meet intended quality objectives. The QA/QC program implemented by EXP incorporated the following components:

- Using dedicated and/or disposable sampling equipment;
- Following proper decontamination protocols to minimize cross-contamination;
- Maintaining field notes and completing field forms to document field activities; and,



Using only laboratory-supplied sample containers and following prescribed sample protocols, including using proper
preservation techniques, meeting sample hold times, and documenting sample transmission on chains of custody,
to ensure the integrity of the samples is maintained.

BV Labs' QA/QC program involved the systematic analysis of control standards for the purpose of optimizing the measuring system as well as establishing system precision and accuracy and included calibration standards, method blanks, reference standards, spiked samples, surrogates and duplicates.



#### **Review and Evaluation** 5.0

#### 5.1 Geology

All of the exterior boreholes are located in a paved area. A 50 mm to 120 mm thick asphaltic concrete layer was contacted in all the exterior the boreholes at the site with the exception of BH-16. For the two interior boreholes, a concrete slab 165-200 mm thick was encountered at the surface of BH/MW-3 and BH/MW-4.

A layer of fill was contacted underlying the asphaltic concrete or concrete all the boreholes. The fill extends to 0.3 to 1.8 m depths. The fill generally consists of sand and gravel.

A layer of glacial till was encountered underlying the fill at 0.3 m depth in BH/MW-9. The glacial till contains varying amounts of gravel, sand, silt and clay within the soil matrix as well as cobbles and boulders. A layer of highly weathered shale bedrock was contacted underlying the fill or the glacial till at depths of 0.7 m to 1.8 m depths in all of the boreholes except BH-14 and BH-16.

Auger refusal was met at 1.3 m to 2.8 m depths (Elevation 92.0 m to Elevation 88.2 m). In BH/MW-1 to BH/MW-7 and BH/MW-11 to BH-18 the boreholes were extended past the depth of refusal through rock coring to termination depths of 2.6 m to 14.9 (Elevation 89.4 m to 76.2 m). The rock coring determined the bedrock to be shale.

A plan view showing cross-sections is provided as Figure 5 in Appendix A, while the Phase Two property geology is depicted in cross-sections on Figure 6 in Appendix A. The borehole logs are included in Appendix E.

#### Groundwater: Elevations and Flow Direction 5.2

Prior to monitoring and sampling, the monitoring wells were inspected for general physical condition, groundwater depth, the presence of light non-aqueous phase liquid (LNAPL). None of the monitoring wells installed during previous investigations were monitored due to the poor condition of the wells.

Four rounds of overburden and bedrock groundwater monitoring and elevation data are provided below.

Table 5.1: Monitoring and Elevation Data

		Screened Material	Date of Measurement	
Borehole (BH)			(Elapsed Time in Days from	Groundwater Depth Below Ground Surface (Elevation), (m)
(=,			Date of Installation)	
			November 23, 2023 (28)	1.8 (89.9)
		HIGHLY WEATHERED SHALE & SHALE BEDROCK	December 6, 2023 (41)	2.2 (89.5)
BH1	91.67		March 15, 2023 (140)	2.1 (89.6)
			June 19, 2024 (237)	2.1 (89.6)
			September 20, 2024	2.2 (89.5)
			November 23, 2023 (24)	10.9 (81.7)
	BH2 92.59	SHALE BEDROCK		
BH2			March 14, 2024 (136)	8.2 (84.4)
			September 20, 2024	7.63 (85.0)
вн3	92.06		December 21, 2023 (7)	2.3 (89.8)



			Date of Measurement		
Borehole Ground Surface (BH) Elevation (m)	Ground Surface	Screened Material	(Elapsed Time in Days from	Groundwater Depth Below Ground Surface (Elevation), (m)	
	Lievation (iii)		Date of Installation)		
			March 14, 2024 (91)	2.3 (89.8)	
		HIGHLY WEATHERED SHALE & SHALE BEDROCK	June 14, 2024 (188)	2.3 (89.8)	
			September 20, 2024	2.3 (89.8)	
		HIGHLY WEATHERED SHALE	December 21, 2023 (7)	1.8 (90.3)	
DIIA	02.06		March 14, 2024 (91)	1.9 (90.2)	
BH4	92.06	& SHALE BEDROCK	June 14, 2024 (188)	2.0 (90.0)	
			September 20, 2024	2.0 (90.0)	
			November 23, 2023 (28)	5.8 (86.8)	
			December 3, 2023 (41)	8.6 (87.0)	
BH7	92.51	SHALE BEDROCK	March 14, 2024 (140)	6.2 (86.3)	
			June 19, 2024 (237)	5.5 (87.0)	
			September 20, 2024	6.3 (86.5)	
		HIGHLY WEATHERED SHALE	November 23, 2023 (28)	1.3 (91.2)	
			December 6, 2023 (41)	1.3 (91.3)	
вн8	92.5		March 14, 2024 (140)	0.6 (91.9)	
			June 19, 2024 (237)	1.2 (91.3)	
			September 20, 2024	1.2 (91.3)	
		GLACIAL TILL AND	November 23, 2023 (28)	1.4 (91.3)	
		HIGHLY WEATHERED SHALE	December 6, 2023 (33)	1.3 (91.5)	
вн9	92.71		March 14, 2024 (132)	1.1 (91.7)	
			June 19, 2024 (229)	1.3 (91.5)	
			September 20, 2024	1.3 (91.5)	
			November 23, 2023 (24)	1.5 (90.1)	
			December 6, 2023 (37)	1.4 (90.2)	
BH10	91.66	HIGHLY WEATHERED SHALE	March 14, 2024 (136)	1.3 (90.4)	
			June 19, 2024 (233)	1.4 (90.2)	
			September 20, 2024	1.4 (90.2)	
		SHALE BEDROCK	November 23, 2023 (22)	10.8 (79.6)	
			December 6, 2023 (35)	10.2 (87.5)	
BH11	90.35		March 9, 2023 (134)	4.0 (86.3)	
			June 19, 2024 (231)	2.9 (87.5)	
			September 20, 2024	5.2 (85.2)	
BH12	91.6	SHALE BEDROCK			



Borehole	Ground Surface	Screened Material	Date of Measurement (Elapsed Time in Days from	Groundwater Depth Below Ground Surface (Elevation), (m)	
(BH)	(BH) Elevation (m)		Date of Installation)		
			December 6, 2023 (33)	11.6 (80.0)	
			March 14, 2024 (132)	14.1 (77.5)	
			June 19, 2024 (229)	13.7 (77.9)	
			September 20, 2024	13.6 (78.0)	
	BH15 92.2		November 23, 2023 (21)	10.1 (82.1)	
		SHALE BEDROCK	December 6, 2023 (34)	6.9 (85.4)	
BH15			March 14, 2024 (133)	6.2 (86.0)	
			June 19, 2024 (230)	6.1 (86.1)	
			September 20, 2024	7.1 (85.2)	

Notes: Elevations were measured to a geodetic datum

> mbgs – metres below ground surface masl – metres above sea level

mbTOC - metres below the top of monitor casing

- - Not monitored N/O - not observed

Based on the groundwater level measurements, groundwater contours in the overburden and deep bedrock were plotted, as shown on Figures 4A and 4B. The groundwater flow direction in the deep bedrock aquifer was to the west, towards Sawmill Creek and the Rideau River. The groundwater flow direction in the shallow bedrock wells was to the northwest.

#### 5.3 **Groundwater: Hydraulic Gradients**

Horizontal hydraulic gradients were estimated for the groundwater flow components identified in the bedrock aquifer based on the December 2023 groundwater elevations.

The horizontal hydraulic gradient is calculated across the using the following equation:

 $i = \Delta h/\Delta s$ 

Where,

i = horizontal hydraulic gradient;

 $\Delta h$  (m) = groundwater elevation difference; and,

 $\Delta s$  (m) = separation distance.

The horizontal hydraulic gradient was calculated to be 0.174 m/m.

On November 28, 2023, three rising head tests (BH/MW-1, BH/MW-7, and BH/MW-10) were conducted. The rising head test requires that the static water level be measured in each monitoring well prior to the removal of groundwater. Groundwater is removed from the monitoring well using a bailer. After the water level has been sufficiently lowered, an interface probe is lowered into the monitor as quickly as possible to measure the new water level. The time at which the new water level is measured is noted as time equal to zero. Water level readings are subsequently taken at frequent intervals. Both the water levels and the time they were taken are recorded.

The frequency of the time measurement is determined by the rate the water level recovers to the static water level. Measurements are taken until at least 70% recovery has been achieved or, in cases where recovery is extremely slow, until it



is deemed that a sufficient amount of time has elapsed. Using the Hvorslev model, the hydraulic conductivity for the monitoring well was calculated.

All water level measurements were made with a Heron oil/water interface probe. Both the probe and the measuring tape that come into contact with liquids within a monitor are cleaned with phosphate-free soap and tap water, rinsed with distilled water and then finally rinsed with methanol after each hydraulic conductivity test is concluded.

**Table 5.2: Rising Head Tests** 

Monitoring Well ID/ Installation ID	Horizon	Screen Depth (mbgs)	Initial Static Water Level (mbToC)	Water Level after Purging (mbToC)	% Recovery to Static after Elapsed time	Hydraulic Conductivity (m/s)
BH/MW-1	Highly weathered shale	4.6 to 5.9	2.46	1.82	86	1.31 x 10 <sup>-9</sup>
BH/MW-7	Bedrock	10.3 to 13.7	11.52	8.99	99	1.25 x 10 <sup>-10</sup>
BH/MW-10	Highly weathered shale	1.0 to 2.5	1.22	1.17	63	3.45 x 10 <sup>-8</sup>

Notes: mbTOC - metres below the top of monitor casing

It was noted that the result of SWRT at BH-7 is presumed to be in error as the hydraulic conductivity value and recovery data does not match the observed trend at this well location.

#### 5.4 Soil: Quality

In accordance with the scope of work, chemical analyses were performed on selected soil samples recovered from the boreholes.

Seventeen soil samples and three duplicate sample were submitted for analysis of PHC, VOC, PAH and metals and inorganics. A summary of the soil analytical results is presented in Tables 1 to 3 along with the Table 3 and 7 SCS comparators (Appendix F). The laboratory certificates are resented in Appendix G. The analytical results are also depicted graphically in Figures 7 to 12 (Appendix A)

The following exceedances of the MECP Table 3 and 7 residential SCS were noted:

- BH/MW-1 SS3, BH/MW-3 SS1 and BH/MW-4 SS2 exceeded for TCE;
- BH/MW-9 AS1 exceeded for PHC F4;
- BH-6 SS1, BH/MW-7 SS2A and BH/MW-7 SS2B exceeded for multiple PAH parameters;
- BH/MW-1 SS3 exceeded for cobalt; and,
- BH/MW-1 SS2 and duplicate, BH/MW-1 SS3, BH/MW-2 AS3, BH-6 SS1, BH-6 SS2, BH/MW-7 SS2A, BH/MW-7 SS2B, BH/MW-8 AS3, BH/MW-9 SS2, BH/MW-10 SS2 and duplicate, BH/MW-11 SS1, BH/MW-11 SS2 and duplicate exceeded for EC and/or SAR.

In accordance with Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. Therefore, for the purpose of this investigation, the elevated EC and SAR in the soil samples collected are deemed not to exceed the Table 7 SCS.



## 5.5 Groundwater: Quality

All groundwater samples were collected via a low-flow sampling technique. EXP monitored several water quality parameters (such as water level, temperature, dissolved oxygen, conductivity, salinity, pH, oxygen reduction potential and turbidity) in order to ensure that the samples collected were representative of actual groundwater conditions.

A summary of the groundwater monitoring program is provided in Tables 4 to 6 along with the Table 3 and 7 SCS comparators in Appendix F and shown on Figures 13 to 18, in Appendix A. Copies of the laboratory Certificates of Analysis are provided in Appendix G.

Initially, eight groundwater samples, a duplicate sample, and field blank and a trip blank were submitted for chemical analysis of VOC. Six groundwater samples, a duplicate sample, a trip blank, and a field blank were submitted for were submitted for chemical analysis of PHC, PAH and metals. The following Table 7 exceedances were noted during the fall/winter 2023 sampling (Figure 14):

- BH/MW-8, BH/MW-10 and duplicate and BH/MW-12 exceeded for benzene;
- BH/MW-3 and BH/MW-7 exceeded for chloroform;
- BH/MW-8 exceeded for PHC F1, ethylbenzene, hexane, and xylenes;
- BH/MW-3 and BH/MW-12 exceeded for TCE; and,
- BH/MW-7 exceeded for sodium.

In comparison to Table 3, the following exceedances were noted from the initial sampling round (Figure 13):

- BH/MW-12 for PCE and TCE
- BH/MW-3 for PCE.

In accordance with Section 49.1.2 of O.Reg. 153/04, standards are deemed to be met if there has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002. As a municipal water source was used for bedrock coring, it is inferred that the municipal water is the source of the chloroform in the groundwater samples from BH/MW-3 and BH/MW-7, and the applicable SCS are deemed not to be exceeded for this parameter.

According to Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. As all of the monitoring wells were located in the parking lot or service garage, for the purpose of this investigation, the elevated sodium levels in the groundwater samples collected from BH/MW-7 are deemed not to exceed the Table 7 SCS.

Recognizing that seasonal variation and/or sediment in the well water can influence groundwater analytical results, additional samples were collected March, June and September 2024 based on exceedances observed in the November and December 2023 sampling events. Additional groundwater samples were submitted for analysis of VOC (BH/MW-1, BH/MW-3, BH/MW-4, and BH/MW-12), one groundwater sample and one duplicate sample were submitted for analysis of BTEX and PHC (BH/MW-8), and one groundwater sample was submitted for analysis of BTEX.

In total, four rounds of groundwater sampling have been completed on the Site (November/December 2023, March 2024, June 2024 September 2024). Additional studies are planned to delineate the Table 7 and/or Table 3 exceedances such that an appropriate remedial strategy can be prepared in conjunction with the overall development approach for the site.



#### 5.5.1 Chemical Transformation and Contaminant Sources

A variety of physical, chemical and biochemical mechanisms affect the fate and transport of the potential COC in soil and groundwater, the contribution of which is dependent on the soil and groundwater conditions at the Phase Two property, as well as the chemical/physical properties of the COC. Relevant fate and transport mechanisms are natural attenuation mechanisms, including advection mixing, mechanical dispersion/molecular diffusion, phase partitions (i.e. sorption and volatilization), and possibly abiotic or biotic chemical reactions, which effectively reduce COC concentrations.

PAH-impacted soil was identified in the vicinity of BH-6 and BH/MW-7 and is associated with poor-quality fill material. PAHs preferentially sorb to soil. All PAH parameters in groundwater were below the detection limits.

TCE-impacted soil was identified at BH/MW-1, BH/MW-3 and BH/MW-4. TCE-impacted groundwater was identified at BH/MW-3 and BH/MW-12. It is noted that the TCE concentrations in the groundwater sample collected from BH/MW-3 decreased during the spring sampling event, and were below the Table 7 SCS, while TCE concentrations in BH/MW-12 increased from the fall sampling event. These impacts are assumed to be associated with historic dry-cleaning operations in the northernmost unit of the site-building. Since chlorinated VOC were detected in groundwater above the Table 7 SCS, there is potential for reductive dechlorination. Under anaerobic conditions, tetrachloroethylene can transform via a microbially mediated reductive dechlorination pathway into daughter products such as trichloroethylene, cis-1,2-dichloroethylene, and vinyl chloride. Evidence of reductive dechlorination was not observed in groundwater on the Phase Two property, as no daughter products were observed above the laboratory detection levels in the groundwater samples collected at the site.

#### 5.5.2 Evidence of Non-Aqueous Phase Liquid

Inspection of the groundwater monitoring wells did not indicate the presence of non-aqueous phase liquid (NAPL).

#### 5.5.3 Maximum Concentrations

Contaminants that exceeded the Table 7 SCS for residential land use were:

**Soil:** PHC F4, tetrachloroethylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, cobalt, SAR, and EC.

**Groundwater:** PHC F1, benzene, chloroform, ethylbenzene, hexane, tetrachloroethylene, trichloroethylene, xylenes and sodium.

It is noted that the electrical conductivity and sodium adsorption ratio soil exceedances and the sodium groundwater exceedance are attributed to the use of road salt in the parking lot. Therefore, in accordance with Section 49.1 of O.Reg. 153/04, these parameters are considered to meet the applicable SCS.

It is also noted that the chloroform exceedance is inferred to be associated with the use of municipal water for bedrock coring. Therefore, in accordance with Section 49.1.2 of O.Reg. 153/04, the groundwater standards for chloroform are deemed to be met

Maximum soil and groundwater concentrations are shown on Tables 7 and 8 respectively in Appendix F.

#### 5.6 Sediment: Quality

There are no water bodies on the Phase Two property, therefore sediment sampling was not required.

#### 5.7 Quality Assurance and Quality Control Results

Quality assurance and quality control measures were taken during the field activities to meet the objectives of the sampling and quality assurance plan to collect unbiased and representative samples to characterize existing conditions in the fill materials and groundwater at the site. QA/QC measures, included:



- Collection and analysis of blind duplicate soil and groundwater samples to ensure sample collection precision;
- Analysis of a groundwater field blank for all parameters that were analysed to assess potential impact during sampling;
- Using dedicated and/or disposable sampling equipment;
- Following proper decontamination protocols to minimize cross-contamination;
- Maintaining field notes and completing field forms to document on-site activities; and,
- Using only laboratory-supplied sample containers and following prescribed sample protocols, including proper preservation, meeting sample hold times, and proper chain of custody documentation, to ensure the integrity of the samples.

BV Labs' QA/QC program consisted of the preparation and analysis of laboratory duplicate samples to assess precision and sample homogeneity, method blanks to assess analytical bias, spiked blanks and QC standards to evaluate analyte recovery, matrix spikes to evaluate matrix interferences and surrogate compound recoveries to evaluate extraction efficiency. The laboratory QA/QC results are presented in the Quality Assurance Report provided in the Certificates of Analysis prepared by Paracel and Caduceon. The QA/QC results are reported as percent recoveries for matrix spikes, spiked blanks and QC standards, relative percent difference for laboratory duplicates and analyte concentrations for method blanks.

A review of the laboratory QA/QC results reported indicated that they were mostly within acceptable control limits or below applicable alert criteria for the sampled media and analytical test groups. For QA/QC purposes, the analytical sample results are quantitatively evaluated by calculating the relative percent difference (RPD) between the samples and their duplicates. To accurately calculate a statistically valid RPD, the concentration of the analytes found in both the original and duplicate sample must be greater than five times the reporting detection limit (RDL).

The results of the RPD calculations are provided in Appendix F in Tables 7 to 12. All of the RPD for soil and groundwater were either not calculable or within the applicable alert limits, with the exception of the soil sample BH/MW-11 SS2 which was outside of the acceptable RPD limits for hot water-soluble boron. As both the sample and the duplicate were within the applicable SCS for silver, the exceedance of the acceptable RPD does not affect the conclusions of this report.



# 6.0 Phase Two Conceptual Site Model

A Conceptual Site Model (CSM) provides a narrative, graphical and tabulated description integrating information related to the Phase Two property's geologic and hydrogeological conditions, areas of potential environmental concern/potential contaminating activities, the presence and distribution of contaminants of concern, contaminant fate and transport, and potential exposure pathways. The P2CSM was completed in accordance with Ontario Regulation 153/04, as amended (O.Reg.153/04), as defined by the Ontario Ministry of the Environment, Conservation and Parks (MECP).

#### 6.1 Introduction

EXP Services Inc. (EXP) was retained by Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP to conduct a Phase Two ESA for the property located at 1820-1846 Bank Street in Ottawa, Ontario (hereinafter referred to as the 'Phase Two property'). At the time of the investigation, the Phase Two property was occupied by a commercial strip mall and associated parking lot.

The objective of the Phase Two ESA investigation was to assess the quality of the soil and groundwater conditions within the APEC identified in a Phase One ESA prepared by EXP.

#### 6.2 Current and Proposed Future Uses

The most recent use of the Phase One property is commercial and that the proposed future use is residential and commercial. Consequently, since the proposed future use of the property is more sensitive than its previous use a will be required.

#### 6.3 Site Description

The Phase Two property has the municipal addresses of 1820-1846 Bank Street in Ottawa, Ontario and is located on the northwest corner of the intersection of Bank Street and Walkley Road. The Phase Two property is irregular in shape with an approximate area of 1.74 hectares. The Phase Two property site location and site layout are shown on Figures 1 and 2 in Appendix A.

The Phase Two property is occupied by single-storey, slab-on-grade commercial buildings containing multiple units. The building has an approximate footprint of 3,925 square meters (42,240 square feet). As of December 2023, the building tenants included Value Village, Algonquin Careers Academy, Ruby Inn (restaurant), Bel-O-Sol (tanning salon), Savannah Afro Caribbean (retail), and Hera Beauty (retail).

The legal description of the Phase Two property is Part Lot 23, Concession Junction Gore, as in CT131445 and NS95310 Except Parts 16, 17 and 18 on Expropriation NS275909 and Parts 1, 2 and 3 on Plan 5R284; subject to OT55584 Ottawa/Gloucester. The property identification number (PIN) is 040690603.

Refer to Table 5.3 for the Site identification information.

**Table 5.3: Site Identification Details** 

Civic Address	1820-1846 Bank Street, Ottawa, Ontario	
Current Land Use	Commercial	
Proposed Future Land Use	Residential and commercial	
Property Identification Number	040690603	
UTM Coordinates	Zone 18, 447944 m E and 5024339 m N	
Site Area	1.74 hectares	



**Property Owner** 

Sun Life Assurance Company of Canada

#### 6.3.1 Buildings and Structures

The Phase Two property is currently occupied by a multi-tenant, slab-on-grade, single-storey, commercial building. The building has a footprint of approximately 3,925 square meters (43,240 square feet). Outside of the building footprint, the site property consists of asphalt parking and driving lanes.

The proposed development will consist of two apartment buildings ranging from twenty-five to thirty stories, and two mixed-use buildings ranging from twenty-four to forty stories. The buildings will be located around the edges of the site with a central park area located in the center of the property. It is understood that a two-storey community building and a mid-rise six-storey building are also being considered to be constructed within the northern area of the central park. It is assumed that the buildings will have three to four levels of underground parking. The proposed building locations are shown on Figure 5

#### 6.3.2 Utilities

The existing building on the Phase Two property is slab-on-grade and is serviced with municipal sewer and water, underground hydro and natural gas. The locations of the utilities on the Phase Two property are shown on Figure 5.

### 6.4 Geological and Hydrogeological Setting

A summary of factors that apply to the Phase Two property is provided in Table 5.4.

**Table 5.4: Site Characteristics** 

Table 514. Site Characteristics		
Minimum Depth to Bedrock	1.3 metres below ground surface	
Minimum Depth to Groundwater	Overburden – 1.28 (December 6, 2023)	
	Bedrock – 6.85 (December 6, 2023)	
Shallow Soil Property	Yes, bedrock is less than 2.0 mbgs across 2/3 of the Phase Two property	
Proximity to water body or ANSI	Approximately 300 m west– Sawmill Creek	
Soil pH	Surface and sub-surface pH was within the applicable ranges	
Soil Texture	Coarse	
Current Property Use	Commercial	
Future Property Use	Residential and commercial	
Proposed Future Building	Two 25 to 40 storey residential apartment buildings, and two 24 to 40 storey mixed-use buildings all with three to four levels of underground parking	
Areas Containing Suspected Fill	Entire Phase Two property	



## 6.4.1 Site Stratigraphy

Beneath any fill, the surficial geology of the subject site is characterised by Champlain Sea fine textured glacimarine deposits of silt and clay. The bedrock geology underlying the site consists of shale of the Carlsbad Formation. Previous investigations have determined that the site geology generally consists of clay, sand and gravel fill overlying shale bedrock. Bedrock is present between 0.9 m and 2.7 metres below ground surface across the Phase One property. Topographically, the Phase Two property is relatively flat. Regionally, topography slopes to the west towards Sawmill Creek. Ground surface elevation at the Phase Two property is approximately 90 metres above sea level.

All of the exterior boreholes are located in a paved area. A 50 mm to 120 mm thick asphaltic concrete layer was contacted in all the exterior the boreholes at the site with the exception of BH-16. For the two interior boreholes, a concrete slab 165-200 mm thick was encountered at the surface of BH/MW-3 and BH/MW-4.

A layer of fill was contacted underlying the asphaltic concrete or concrete all the boreholes. The fill extends to 0.3 to 1.8 m depths. The fill generally consists of sand and gravel.

A layer of glacial till was encountered underlying the fill at 0.3 m depth in BH/MW-9. The glacial till contains varying amounts of gravel, sand, silt and clay within the soil matrix as well as cobbles and boulders. A layer of highly weathered shale bedrock was contacted underlying the fill or the glacial till at depths of 0.7 m to 1.8 m depths in all of the boreholes except BH-14 and BH-16.

Auger refusal was met at 1.3 m to 2.8 m depths (Elevation 92.0 m to Elevation 88.2 m). In BH/MW-1 to BH/MW-7 and BH/MW-11 to BH-18 the boreholes were extended past the depth of refusal through rock coring to termination depths of 2.6 m to 14.9 (Elevation 89.4 m to 76.2 m). The rock coring determined the bedrock to be shale.

A plan view showing cross-sections is provided as Figure 5 in Appendix A, while the Phase Two property geology is depicted in cross-sections on Figure 6 in Appendix A.

#### 6.4.2 Approximate Depth to Water Table

The depth to groundwater was measured to range from 1.28 to 2.18 m below ground surface in the shallow bedrock wells, and 6.85 to 11.64 metres below ground surface in the deep bedrock wells.

Based on the groundwater level measurements, groundwater contours in the overburden and deep bedrock were plotted, as shown on Figures 4A and 4B. The groundwater flow direction in the deep bedrock aquifer was to the west, towards Sawmill Creek and the Rideau River. The groundwater flow direction in the shallow bedrock wells was to the northwest.

EXP notes that groundwater levels can be influenced by seasonal changes, the presence of subsurface structures, or fill, however based on the depth of the water table (within the bedrock), it is unlikely that any of these factors will affect the groundwater flow direction at the Phase Two property.

#### 6.4.3 Hydrogeological Conditions

There are no water bodies on the subject site. There are no water bodies on the subject site. The closest body of water is Sawmill Creek, located approximately 300 m west of the Phase Two property. Sawmill Creek flows to the north towards the Rideau River. The inferred groundwater flow direction is to the north-northwest towards the Rideau River.

The hydraulic conductivity was calculated to range between  $3.45 \times 10^{-8}$  and  $1.31 \times 10^{-9}$  in the fractured bedrock.

Vertical hydraulic gradients were not calculated as overburden groundwater consisted of minimal perched water at the bedrock-overburden interface.



# 6.4.4 Approximate Depth to Bedrock

Investigations at the Phase Two property have determined that the stratigraphy generally consisted of fill overlying glacial till. Bedrock was encountered between 1.3 to 2.7 m bgs.

## 6.4.5 Site Sensitivity

The Phase Two property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the Phase Two property, are supplied by a municipal drinking water system provided by the City of Ottawa. Further, the Phase Two property is not located in an area designated in the municipal official plan as a well-head protection area and no properties within the Phase Two property study area has a well that is being used or is intended for use as a source of potable water. Thus, in accordance with Section 35 of Ontario Regulation 153/04, non-potable water standards apply to the Phase Two property.

In accordance with Section 41 of Ontario Regulation 153/04, the Phase Two property is not an environmentally sensitive area. In addition, the Phase Two property is not located within an area of natural significance, and it does not include land that is within 30 metres of an area of natural significance. The Phase Two property is located greater than 30 metres from a water body. In the opinion of the Qualified Person who oversaw the entire investigation, the Phase Two property is not a sensitive site.

Based on the Phase Two ESA investigation, the property is considered a shallow soil property as defined in Section 43.1 of the regulation, as the depth to bedrock is less than 2 metres across 2/3 of the Phase Two property.

Considering that the Site will likely be developed in stages and recognizing that the depth to bedrock varies across the Site, EXP also utilized the Table 3 Generic Site Condition Standards for Ful Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition for Residential/Parkland/Institutional properties, Coarse Textured Soil for portions of the Site where those standards apply.

# 6.5 Potentially Contaminating Activities

The following PCAs were identified:

- PCA 1: 1822 Bank Street former on-site rail siding (PCA #46)
- PCA 2: Glenhaven Private former rail line (PCA #46)
- PCA 3: 1841 Bank Street former gas station (PCA #28)
- PCA 4: 1841 Bank Street active repair garage (PCA #10)
- PCA 5: 1827 (1811 Bank Street former contractor's repair garage (PCA #10)
- PCA 6: 1827 (1811) Bank Street former UST (PCA #28)
- PCA 7: 1847 Bank Street active gas station (PCA #28)
- PCA 8: 1877 Bank Street former gas station (PCA #28)
- PCA 9: 1846 Bank Street (Phase Two property) former dry cleaner (PCA #37)
- PCA 10: 1832 Bank Street (Phase Two property) former gas station (PCA #28)
- PCA 11: 1800 Bank Street former dry cleaner (PCA #37)
- PCA 12: 1811 Bank Street car dealership with repair garage (PCA #10)
- PCA 13: 1811 Bank Street gasoline and waste oil USTs for car dealership (PCA #28)



- PCA 14: 1850 Bank Street former car dealership with repair garage (PCA #10)
- PCA 15: 1850 Bank Street Former gasoline and waste oil USTs (PCA #28)
- PCA 16: 1792 Bank Street active repair garage (PCA #10)
- PCA 17: 1792 Bank Street former gas station (PCA #28)
- PCA 18: 1770 Bank Street car dealership with repair garage (PCA #10)
- PCA 19: 1770 Bank Street gasoline and waste oil UST for car dealership/repair garage (PCA #28)
- PCA 20: 1820-1846 Bank Street fill material of unknown quality (PCA #30)
- PCA 21: 2629 Alta Vista Drive dry cleaner (PCA #37)
- PCA 22: 2706 Alta Vista Drive dry cleaner (PCA #37)
- PCA 23: 1750 Bank Street former repair garage (PCA #10)
- PCA 24: 1750 Bank Street former gas stations (PCA #28)
- PCA 25: 1750 Bank Street former dry cleaner (PCA #37)

All of the on-site PCAs were determined to result in APECs. A dry cleaner (PCA 9) operated in the northernmost unit from the 1970s until 2018. A gas station (PCA 10) was present on the east part of the site for a brief period in the 1970s. Previous investigations conducted on this part of the site identified tetrachloroethylene (PCE) impacted soil and groundwater, although it is noted that the most recent investigation conducted by Pinchin Limited did not identify any exceedances of the applicable standards in the monitoring wells sampled near the former on-site dry cleaner or gas station. The previous investigation also identified between 0.9 m and 2 m of fill material on the Phase One property (PCA 20). A rail siding (PCA 1) was historically located on the Phase Two property prior to the construction of the existing site-building.

With respect to off-site PCAs, due to the proximity and/or inferred upgradient location from the Phase Two property, the gas stations at 1841 and 1847 Bank Street, the repair garages/car dealerships at 1841 and 1850 Bank Street, the former rail line to the west, and the former dry cleaner at 1800 Bank Street were considered to contribute to APECs on the Phase Two property.

The remaining PCAs identified in the study area were located at least 100 m from the Phase Two property and/or down/crossgradient to the Phase Two property and were not considered to contribute to APECs on the Phase Two property.

#### 6.6 Areas of Potential Environmental Concern

The APEC identified are summarized in Table 5.5.

Table 5.5: Findings of Phase One ESA

Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#1. Former on-site dry- cleaner	North end of site building	PCA #37 – Operations of dry cleaning equipment (where chemicals are used) (PCA 9)	On-site	VOC	Soil and groundwater
#2. Former on-site gas station	East part of Phase Two property	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 10)	On-site	PHC, VOC, metals	Soil and groundwater



Area of Potential Environmental Concern (APEC)	Location of APEC on Phase One Property	Potentially Contaminating Activity (PCA)	Location of PCA (On- Site or Off- Site)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)
#3. Former on-site rail siding	Northwest part of Phase Two property	PCA #46 – Rail yard, tracks, and spurs (PCA 1)	On-site	PAH, metals	Soil
#4. Fill material	Entire Phase Two property	PCA #30 – Importation of fill material of unknown quality (PCA 20)	On-site	PHC, PAH, metals	Soil
#5. Former dry cleaner at 1800 Bank Street & Along north historical furnace oil leak from UST		PCA #37 – Operations of dry cleaning equipment (where chemicals are used) and PCA #28 – Gasoline and associated products storage in fixed tanks (PCA's 10 & 11)	Off-site	PHC, VOC	Soil and groundwater
#6. Former gas station at 1841 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 3)	Off-site	PHC, VOC	Soil and groundwater
#7. Repair garage at 1841 Bank Street	Along southeast property line	PCA #10 – Commercial autobody shop (PCA 4)	Off-site	PHC, VOC, metals	Soil and groundwater
#8. Gas station at 1847 Bank Street	Along southeast property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 7)	Off-site	PHC, VOC	Soil and groundwater
#9. Former car dealership at 1850 Bank Street	Along south property line	PCA #10 – Commercial autobody shop (PCA 14)	Off-site	PHC, VOC, metals	Soil and groundwater
#10. Former USTs associated with car dealership at 1850 Bank Street	Along south property line	PCA #28 – Gasoline and associated products storage in fixed tanks (PCA 15)	Off-site	втех, рнс	Soil and groundwater
#11. Former rail line to the west of the site	Along west property line	PCA #46 – Rail yard, tracks, and spurs (PCA 2)	Off-site	PAH, metals	Soil

The locations of the APEC are shown on Figure 3 in Appendix A.

#### 6.7 **Previous Investigations**

Multiple previous investigations have been conducted at the Phase Two property. A limited Phase II ESA was conducted by JWEL in 1999 to address the dry-cleaning operations. In addition, the north adjacent property was historically occupied by an industrial plant (Westinghouse), and a dry-cleaning operation and several gas stations and repair garages were identified to the northeast and northwest of the Phase One property. As these operations were located inferred cross-gradient to the site, they were not anticipated the contribute to areas of potential environmental concern. Concentrations of volatile organic compound (VOC) in exceedance of the Ministry of the Environment (MOE) applicable standards were present in the groundwater.

In February 2002, a total of three boreholes were advanced at the site by Trow to approximately 6.4 metres below ground surface. All three of the boreholes were completed as monitoring wells. Subsurface stratigraphy generally consisted of sandy silt fill to approximately 0.6 m bgs, overlying native silty sand with some gravel. Highly fractured shale bedrock was



encountered approximately 2.0 to 2.5 m bgs in all three boreholes. It is noted that all of the monitoring wells were installed in the bedrock. A total of three soil samples were submitted for analysis of VOC, one soil sample was submitted for analysis of polycyclic aromatic hydrocarbons (PAH), and metals. Three groundwater samples were submitted for analysis of VOC, and one groundwater sample was also submitted for analysis of PAH and metals. One soil sample (MW 101), and one groundwater sample (MW 102) exceeded the applicable non-portable criteria for PCE.

In February 2002, Trow retained a video inspection company to conduct video imaging to assess the integrity of the sewers in/around the dry-cleaning unit. A floor drain was noted in the dry-cleaning unit which connected to the sanitary sewer. The video assessment of the sanitary sewer indicated that the condition of the sanitary sewer in the vicinity of the floor drain/toilet was in suspect condition and may be allowing seepage of wastewater to the subsurface beneath the building. Swab samples were also collected from the sanitary sewer pipe in the vicinity of the dry-cleaning machine and submitted for analysis of VOC. Results of the swab analysis indicated that trichloroethylene (TCE) and PCE were present in the sanitary sewer. It was inferred from these results that the former dry-cleaning machine was connected to the sanitary sewer and discharging waste PCE.

It was noted that a new dry-cleaning machine was installed in March 2002. It was noted that the new unit was self-contained and not connected to the municipal sewers. Waste PCE was stored in tanks that formed part of the machine and is removed from the site by a licensed contractor.

It was recommended that bi-annual groundwater sampling be conducted to monitor the concentrations of VOCs. It was recommended that the floor drain in the vicinity of the dry-cleaning machine be capped, as the new machine was self-contained, and a sewer connection was no longer required. The 1999 JWEL monitoring well was decommissioned to prevent further migration of impacted groundwater.

An enhanced Phase I ESA investigation was conducted in 2013 by Pinchin. Three monitoring wells north of the dry-cleaning unit, and one monitoring well on the east part of the site in the area of the former gas station were sampled as part of this investigation. Groundwater samples were submitted for analysis of VOC and/or petroleum hydrocarbons (PHC). The groundwater samples were compared to the MECP Table 3 site condition standards (SCS) for commercial land use. All of the groundwater samples were within the Table 3 SCS. Based on the results of the groundwater sampling program, it was Pinchin's opinion that none of the on-site operations had resulted in any subsurface impacts. No additional subsurface investigation was recommended by Pinchin. Pinchin noted that, based on the age of the site building, there was potential for asbestos-containing materials to be present in the site-building.

# 6.8 Scope of the Investigation

The objective of the Phase Two ESA was to assess the quality of soil and groundwater quality on the Phase Two property. The field program was conducted in conjunction with geotechnical and hydrogeological investigations.

The following table summarizes the soil and groundwater locations on the Phase Two property, and the APECs each sample location addresses.

**Table 5.6: Summary of Investigation** 

Area of Potential Environmental Concern (APEC)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)	Addressed by BH/MW/sample #
#1. Former on-site dry-cleaner	VOC	Soil and groundwater	BH/MW-3, BH/MW-4, BH/MW-12
#2. Former on-site gas station	PHC, VOC, metals	Soil and groundwater	BH/MW-7, BH/MW-8



#3. Former on-site rail siding	PAH, metals	Soil	BH/MW-3, BH-6
#4. Fill material	PHC, PAH, metals	Soil	BH/MW-1, BH/MW-2, BH/MW-3, BH/MW-4, BH-6, BH/MW-7, BH/MW-8, BH/MW-9, BH/MW-10, BH/MW-11
#5. Former dry cleaner at 1800 Bank Street & historical furnace oil leak from UST	PHC, VOC	Soil and Groundwater	BH/MW-1
#6. Former gas station at 1841 Bank Street	PHC, VOC	Soil and Groundwater	BH/MW-8, BH/MW-9
#7. Repair garage at 1841 Bank Street	PHC, VOC, metals	Soil and groundwater	BH/MW-8, BH/MW-9
#8. Gas station at 1847 Bank Street	PHC, VOC	Soil and groundwater	BH/MW-8, BH/MW-9
#9. Former car dealership at 1850 Bank Street	PHC, VOC, metals	Soil and groundwater	BH/MW-10, BH/MW-11
#10. Former USTs associated with car dealership at 1850 Bank Street	втех, РНС	Soil and groundwater	BH/MW-10, BH/MW-11
#11. Former rail line to the west of the site	PAH, metals	Soil	BH/MW-3, BH/MW-11

## 6.8.1 Investigation

The site investigative activities were conducted in conjunction with a hydrogeological investigation and geotechnical investigation and consisted of the advancement of boreholes on the site to facilitate the collection of soil and groundwater samples for visual inspection and chemical analyses.

Prior to the commencement of excavating, the locations of underground public utilities including telephone, natural gas and electrical lines were marked at the subject property by public locating companies. A private utility locating contractor was also retained to clear the individual borehole locations.

The borehole locations were selected to address the APECs identified in the Phase One ESA, and to provide site coverage for geotechnical purposes. The exterior drilling program was completed between October 26 and November 3, 2023, by George Downing Estate Drilling Ltd. (Downing), a licensed well contractor. Downing advanced fifteen geotechnical boreholes (BH/MW-1, BH/MW-2, BH-6 to BH-18) across the Phase Two property, using a CME-75 truck-mounted drill. On December 13 and 14, 2023, Strata Drilling Group (Strata) completed two interior environmental boreholes (BH/MW-3 and BH/MW-4) inside the former dry cleaner using a Geoprobe model 450 using direct push sampling for the overburden soils and cored the bedrock using a Hilti drill using an N-size core barrel.



BH/MW-1 to BH/MW-7 and BH/MW-11 to BH-18 the boreholes were extended past the depth of refusal through rock coring to termination depths of 2.6 m to 14.9 metres below ground surface. Monitoring wells with diameters of either thirty-two (32) mm, thirty-eight (38) mm or fifty (50) mm diameter were installed in BH/MW-1, BH/MW-2, BH/MW-7 to BH/MW-12 and BH/MW-15 for long-term monitoring of the groundwater levels as well as groundwater sampling. The boreholes were backfilled upon completion of drilling.

EXP staff continuously monitored the drilling activities to log the stratigraphy observed, to record the depth of soil sample collection, to record total depths of excavation, and to record visual or olfactory observations of potential impacts. Field observations are summarized on the borehole logs provided in Appendix E. Nitrile gloves (i.e., one pair per sample) were used during sample handling. No petroleum-based greases or solvents were used during drilling activities.

## 6.8.2 Soil Sampling

In accordance with the scope of work, chemical analyses were performed on selected soil samples recovered from the boreholes.

Seventeen soil samples and three duplicate sample were submitted for analysis of PHC, VOC, PAH and metals and inorganic. The following exceedances of the MECP Table 7 residential SCS were noted:

- BH/MW-1 SS3, BH/MW-3 SS1 and BH/MW-4 SS2 exceeded for TCE;
- BH/MW-9 AS1 exceeded for PHC F4;
- BH-6 SS1, BH//MW-7 SS2A and BH/MW-7 SS2B exceeded for multiple PAH parameters;
- BH/MW-1 SS3 exceeded for cobalt; and,
- BH/MW-1 SS2 and duplicate, BH/MW-1 SS3, BH/MW-2 AS3, BH-6 SS1, BH-6 SS2, BH/MW-7 SS2A, BH/MW-7 SS2B, BH/MW-8 AS3, BH/MW-9 SS2, BH/MW-10 SS2 and duplicate, BH/MW-11 SS1, BH/MW-11 SS2 and duplicate exceeded for EC and/or SAR.

In accordance with Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. Therefore, for the purpose of this investigation, the elevated EC and SAR in the soil samples collected are deemed not to exceed the Table 7 SCS.

The soil sample collected from BH/MW-1 exceeded the Table 7 SCS for cobalt. This sample was collected from the highly weathered shale layer, and the exceedance is inferred to be associated with naturally elevated levels of cobalt in the Ottawa area.

# 6.8.3 Groundwater Sampling

All groundwater samples were collected via a low-flow sampling technique. EXP monitored several water quality parameters (such as water level, temperature, dissolved oxygen, conductivity, salinity, pH, oxygen reduction potential and turbidity) in order to ensure that the samples collected were representative of actual groundwater conditions.

In November and December 2023, eight groundwater samples, a duplicate sample, and field blank and a trip blank were submitted for chemical analysis of VOC. Six groundwater samples, a duplicate sample, a trip blank, and a field blank were submitted for were submitted for chemical analysis of PHC, PAH and metals. The following Table 7 exceedances were noted during the fall/winter 2023 sampling:

- BH/MW-8, BH/MW-10 and duplicate and BH/MW-12 exceeded for benzene;
- BH/MW-3 and BH/MW-7 exceeded for chloroform;



- BH/MW-8 exceeded for PHC F1, ethylbenzene, hexane, and xylenes;
- BH/MW-3 and BH/MW-12 exceeded for TCE; and,
- BH/MW-7 exceeded for sodium.

In comparison to Table 3, the following exceedances were noted from the initial sampling round (Figure 13):

- BH/MW-12 for PCE and TCE
- BH/MW-3 for PCE

In accordance with Section 49.1.2 of O.Reg. 153/04, standards are deemed to be met if there has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002. As a municipal water source was used for bedrock coring, it is inferred that the municipal water is the source of the chloroform in the groundwater samples from BH/MW-3 and BH/MW-7, and the applicable SCS are deemed not to be exceeded for this parameter.

According to Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. As all of the monitoring wells were located in the parking lot or service garage, for the purpose of this investigation, the elevated sodium levels in the groundwater samples collected from BH/MW-7 are deemed not to exceed the Table 7 SCS.

In March, June and September 2024, additional samples were collected based on exceedances observed in the 2023 sampling event. Four groundwater samples were submitted for analysis of VOC (BH/MW-1, BH/MW-3, BH/MW-4, and BH/MW-12), one groundwater sample and one duplicate sample were submitted for analysis of BTEX and PHC (BH/MW-8), and one groundwater sample was submitted for analysis of BTEX. It is noted that no sample was collected from BH/MW-7 due to insufficient volume. The following exceedances were noted during the spring 2024 sampling:

- BH/MW-8 and duplicate, and BH/MW-12 exceeded for benzene;
- BH/MW-12 exceeded for TCE.

It is noted that the benzene concentration in BH/MW-8 (and duplicate) has decreased since the 2023 sampling event, and the benzene concentration in the groundwater sample and duplicate (0.70 µg/L and 0.69 µg/L) only slightly exceeded the Table 3 residential SCS for benzene (0.5 μg/L). The concentrations of both benzene and TCE in the sample collected from BH/MW-12 were noted to fluctuate with subsequent sample. It is noted that a sediment free sample has not been able to be collected from BH/MW-12 due to the small diameter and deep construction of monitoring wells BH/MW-12.

Additional studies are planned to delineate the Table 7 and/or Table 3 exceedances such that an appropriate remedial strategy can be prepared in conjunction with the overall development approach for the site.

# 6.8.4 Contaminants of Concern

The following contaminants of concern were identified:

Soil: PHC, VOC, PAH, metals

**Groundwater:** PHC, VOC, metals

Contaminants that exceeded the Table 7 SCS for residential land use were:

Soil: PHC F4, tetrachloroethylene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, fluoranthene, cobalt, SAR, and EC.



**Groundwater:** PHC F1, benzene, chloroform, ethylbenzene, hexane, tetrachloroethylene, trichloroethylene, xylenes and sodium.

It is noted that the electrical conductivity and sodium adsorption ratio soil exceedances and the sodium groundwater exceedance are attributed to the use of road salt in the parking lot. Therefore, in accordance with Section 49.1 of O.Reg. 153/04 these parameters are considered to meet the applicable SCS.

It is also noted that the chloroform exceedance is inferred to be associated with the use of municipal water for bedrock coring. Therefore, in accordance with Section 49.1.2 of O.Reg. 153/04, the groundwater standards for chloroform are deemed to be met.

## 6.8.5 Contaminant Fate and Transport

A variety of physical, chemical and biochemical mechanisms affect the fate and transport of the potential COC in soil and groundwater, the contribution of which is dependent on the soil and groundwater conditions at the Phase Two property, as well as the chemical/physical properties of the COC. Relevant fate and transport mechanisms are natural attenuation mechanisms, including advection mixing, mechanical dispersion/molecular diffusion, phase partitions (i.e. sorption and volatilization), and possibly abiotic or biotic chemical reactions, which effectively reduce COC concentrations.

PAH-impacted soil was identified in the vicinity of BH-6 and BH/MW-7 and is associated with poor-quality fill material. PAH impact appears to be limited to poor-quality fill material. PAHs preferentially sorb to soil. All PAH parameters in groundwater were below the detection limits.

TCE-impacted soil was identified at BH/MW-1, BH/MW-3 and BH/MW-4. TCE-impacted groundwater was identified at BH/MW-3 and BH/MW-12. It is noted that the TCE concentrations in the groundwater sample collected from BH/MW-3 decreased during the spring sampling event, and were below the Table 7 SCS, while TCE concentrations in BH/MW-12 increased from the fall sampling event. These impacts are assumed to be associated with historic dry-cleaning operations in the northernmost unit of the site-building. Since chlorinated VOC were detected in groundwater above the Table 7 SCS, there is potential for reductive dechlorination. Under anaerobic conditions, tetrachloroethylene can transform via a microbially mediated reductive dechlorination pathway into daughter products such as trichloroethylene, cis-1,2-dichloroethylene, and vinyl chloride. Evidence of reductive dechlorination was not observed in groundwater on the Phase Two property, as no daughter products were observed above the laboratory detection levels in the groundwater samples collected at the site.

PHC-impacted soil was identified at BH/MW-9. PHC and BTEX-impacted groundwater was identified at BH/MW-8. The source of the PHC impact in the vicinity of BH/MW-8 and BH/MW-9 is inferred to be the historic operation of a gas station on the Phase Two property. Benzene was detected in the groundwater sample and duplicate sample from BH/MW-10 and the groundwater sample from BH/MW-12. It is noted that the benzene concentrations in the groundwater sample collected from BH/MW-10 decreased during the spring sampling event, and were below the detection limits, while benzene concentrations in BH/MW-12 increased from the fall sampling event.

### 6.8.6 Preferential Pathways

The preferential pathways for contaminants present in soil and groundwater include underground utilities and surface features. Storm and sanitary sewers are present across the property, as shown on Figure 5.

Areas of impacted groundwater on the Phase Two property have not been delineated. It is possible that utilities on the site are provided immigration pathways or groundwater contaminants, particularly in the vicinity of the former dry cleaning unit.

#### 6.8.7 Climactic Conditions

It is noted that climatic or meteorological conditions may influence the distribution and migration of COCs at the Phase Two property. Seasonal fluctuations in groundwater due to cyclical increases and decreases in precipitation can affect



groundwater recharge and hence flow direction. Groundwater levels may be elevated in the spring and fall due to snow melt and/or increases in precipitation; and groundwater levels may be lowered in the winter and summer due to snow storage and/or increased evaporation. Such fluctuations have the potential to increase the vertical distribution of COCs in the capillary zone, as well as alter the direction of groundwater flow paths based on changes in infiltration rates.

# 6.8.8 Human Health Receptors and Exposure Pathways

Residential apartments with underground parking and ground floor commercial are currently proposed for the Phase Two property. The potential on-site human receptors are identified as property residents (adult, teen, child, toddler and infant), property visitors (adult, teen, child, toddler and infant), indoor and outdoor long-term workers, indoor and outdoor short-term workers, and construction workers.

Possible routes of exposure for human receptors include the following: incidental soil ingestion, soil particulate inhalation, and soil dermal contact.

# 6.8.9 Ecological Receptors and Exposure Pathways

While the footprint of the building and parking lot will occupy most of the property, there will be some landscaped areas on the Phase Two property. Therefore, the Phase Two property is capable of supporting some ecological receptors. Relevant ecological receptors include terrestrial vegetation (bushes, grasses and weeds); soil invertebrates (earthworms, millipedes and beetles); birds (seagulls, pigeons, sparrows and robins); and small terrestrial mammals (moles, voles, and mice).

Possible routes of exposure for ecological receptors are root uptake of soil (terrestrial vegetation), and soil particulate inhalation, soil dermal contact, and soil ingestion (soil invertebrates, mammals, and birds).



#### 7.0 Conclusion

During the current investigation, the soil and groundwater quality at the Phase Two property were investigated. Results were compared to Regulation 153/04 Table 3 and Table 7 SCS for residential/parkland/institutional use and coarse-textured soils.

Seventeen soil samples and three duplicate sample were submitted for analysis of PHC, VOC, PAH and metals and inorganics. The following exceedances of the MECP Table 7 residential SCS were noted:

	Parameter	Table 7 Residential SCS						
voc	Tetrachloroethylene	BH/MW-1 SS3, BH/MW-3 SS1, BH/MW4 SS2						
PHC	PHC F4	BH/MW9 AS1						
	Benzo(a)anthracene	BH-6 SS1, BH/MW-7 SS2B						
РАН	Benzo(a)pyrene	BH-6 SS1, BH/MW-7 SS2A, BH/MW7 SS2B						
	Benzo(b)fluoranthene	BH-6 SS1						
	Fluoranthene	BH-6 SS1, BH/MW-7 SS2A, BH/MW-7 SS2B						
Metals	Cobalt	BH/MW-1 SS3						
	Electrical Conductivity	BH/MW-1 SS2						
Inorganics	Sodium Adsorption Ratio	BH/MW-1 SS2 (and DUP 2), BH/MW-1 SS3, BH/MW-2 AS3, BH-6 SS1, BH-6 SS2, BH/MW-7 SS2A, BH/MW-7 SS2B, BH/MW-8 AS3, BH/MW-9 SS2, BH/MW-10 SS (and DUP 1), BH/MW-11 SS1, BH/MW-11 SS2 (and DUP 3)						
	рН	DUP 2 (BH/MW-1 SS2)						

In accordance with Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. Therefore, for the purpose of this investigation, the elevated EC and SAR in the soil samples collected are deemed not to exceed the Table 7 SCS.

Eight groundwater samples, a duplicate sample, and field blank and a trip blank were submitted for chemical analysis of VOC. Six groundwater samples, a duplicate sample, a trip blank, and a field blank were submitted for were submitted for chemical analysis of PHC, PAH and metals. The following exceedances were noted:

	Damanatan.	Table 7 Res	sidential SCS
	Parameter	Fall 2023 Sampling	Spring 2024 Sampling
	Chloroform	BH/MW-3, BH/MW-7	None
voc	Hexane	BH/MW-8	None
	Tetrachloroethylene, trichloroethylene	BH/MW-3, BH/MW-12	BH/MW-12
PHC +	Benzene	BH/MW-8, BH/MW-10 (and DUP), BH/MW-12	BH/MW-8 (and DUP), BH/MW-12
BTEX	Ethylbenzene	BH/MW-8	None



	Parameter	Table 7 Res	sidential SCS
	rarameter	Fall 2023 Sampling	Spring 2024 Sampling
	Xylenes	BH/MW-8	None
	PHC F1	BH/MW-8	None
Metals	Sodium	BH/MW-7	N/A

In accordance with Section 49.1.2 of O.Reg. 153/04, standards are deemed to be met if there has been a discharge of drinking water within the meaning of the Safe Drinking Water Act, 2002. As a municipal water source was used for bedrock coring, it is inferred that the municipal water is the source of the chloroform in the groundwater samples from BH/MW-3 and BH/MW-7, and the applicable SCS are deemed not to be exceeded for this parameter.

According to Section 49.1 of O.Reg. 153/04 if, in the opinion of the Qualified Person, the applicable SCS at the Phase Two property are exceeded solely due to the application of a substance to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable SCS is deemed not to be exceeded. Road salt is considered to have been applied to the driving and parking surfaces on the Phase Two property. As all of the monitoring wells were located in the parking lot or service garage, for the purpose of this investigation, the elevated sodium levels in the groundwater samples collected from BH/MW-7 are deemed not to exceed the Table 7 SCS.

A soil sample collected from BH/MW-9 exceeded Table 7 SCS for PHC, and groundwater collected from BH/MW-8 exceeded Table 7 SCS for PHC, benzene, hexane, and xylenes. This impact is likely associated with the operation of the former on-site gas station.

Groundwater samples collected from BH/MW-10 and BH/MW-12 exceeded the Table 7 SCS for benzene. The groundwater impact identified in BH/MW-10 may originate from an off-site source. Additional investigation is required.

Soil samples collected from BH/MW-1, BH/MW-3, and BH/MW-4 and groundwater samples collected from BH/MW-3 and BH/MW-12 exceeded the Table 7 SCS for TCE. This impact is inferred to be associated with the operation of the former onsite dry cleaner.

Soil samples collected from the BH-6 and BH/MW-7 exceeded the Table 7 SCS for PAH. No groundwater exceedances for PAH were present in any of the groundwater samples collected from the Phase Two property. The PAH impact is inferred to be associated with poor quality fill material.

A soil sample collected from BH/MW-1 exceeded the Table 7 SCS for cobalt. This sample was collected from the highly weathered shale layer, and the exceedance is inferred to be associated with naturally elevated levels of cobalt in the Ottawa area.

Additional studies are planned to delineate the Table 7 and/or Table 3 exceedances such that an appropriate remedial strategy can be prepared in conjunction with the overall development approach for the site.

The Qualified Person can confirm that the Phase Two Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.



# 8.0 References

This study was conducted in accordance with the applicable Regulations, Guidelines, Policies, Standards, Protocols and Objectives. Specific reference is made to the following documents.

- EXP Services Inc., Phase One Environmental Site Assessment, 1820-1846 Bank Street, Ottawa, Ontario, September 2024.
- EXP Services Inc., Geotechnical Investigation, Proposed Walkley Development, 1820-1846 Bank Street, Ottawa, Ontario, August 2024.
- EXP Services Inc., Hydrogeological Investigation, 1820-1846 Bank Street, Ottawa, Ontario, September 2024.
- Ontario Ministry of the Environment, Conservation and Parks, Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, December 1996.
- Ontario Ministry of the Environment, Conservation and Parks, Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, April 15, 2011.
- Ontario Ministry of the Environment, Conservation and Parks, Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04, June 2011.
- Ontario Ministry of the Environment, Conservation and Parks, *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, July 1, 2011.*
- Ontario Ministry of the Environment, Conservation and Parks, Management of Excess Soil A Guide for Best Management Practices, January 2014.
- Ontario Regulation 153/04, made under the Environmental Protection Act, as amended.
- Ontario R.R.O. 1990, Regulation 347, made under the Environmental Protection Act, as amended.
- Ontario R.R.O. 1990, Regulation 903, made under the Water Resources Act, as amended.



#### 9.0 **General Limitations**

### **Basis of Report**

This report ("Report") is based on site conditions known or inferred by the investigation undertaken as of the date of the Report. Should changes occur which potentially impact the condition of the site the recommendations of EXP may require reevaluation. Where special concerns exist, or Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP ("the Client") has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

#### **Reliance on Information Provided**

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to exp. If new information about the environmental conditions at the Site is found, the information should be provided to EXP so that it can be reviewed and revisions to the conclusions and/or recommendations can be made, if warranted.

#### **Standard of Care**

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

### **Complete Report**

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by the Client, communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

#### **Use of Report**

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorised use of the Report.

#### **Report Format**

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.



# 10.0 Signatures

We trust this report meets your current needs. If you have any questions pertaining to the investigation undertaken by EXP, please do not hesitate to contact the undersigned.

The Qualified Person confirms that the Phase Two Environmental Site Assessment was conducted per the requirements of Ontario Regulation 153/04, as amended, and in accordance with generally accepted professional practices.

Leah Wells, P.Eng., QP<sub>ESA</sub>
Environmental Engineer
Earth and Environment

When

Chris Kimmerly, P.Geo., QP<sub>ES</sub> Senior Project Manager

Earth and Environment

Christopher Thomas Kimmer
PRACTISING MEMBER

NTARY

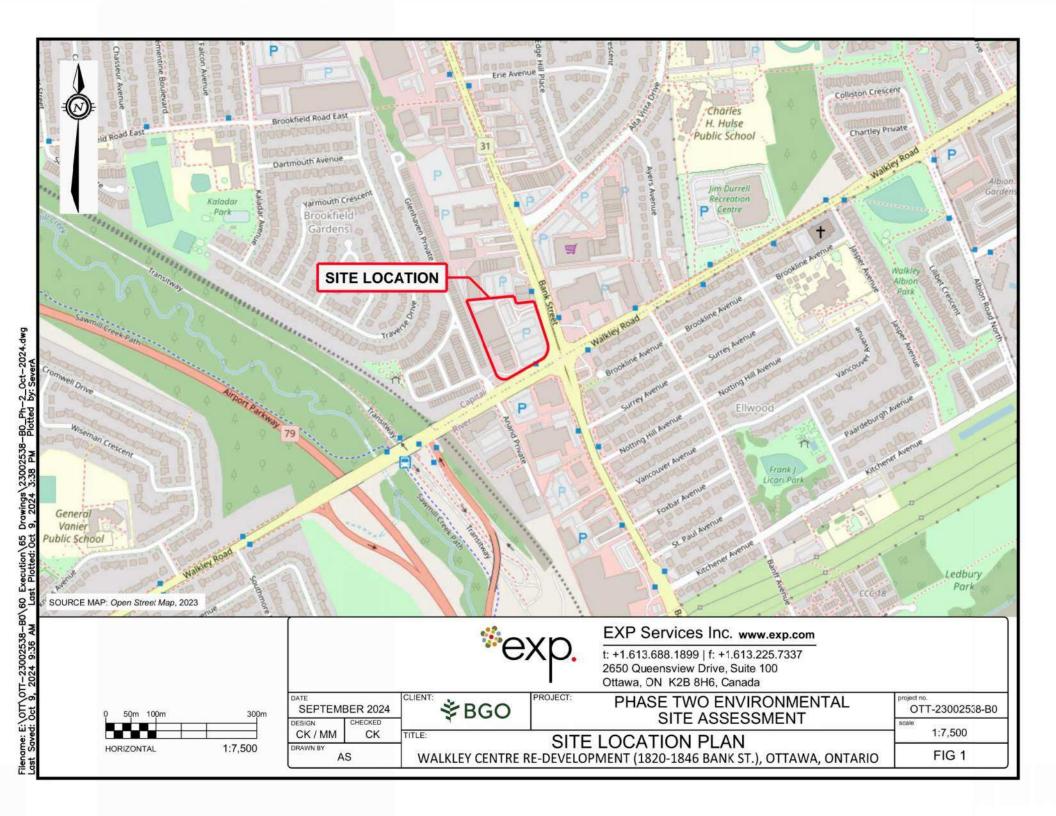


EXP Services Inc.

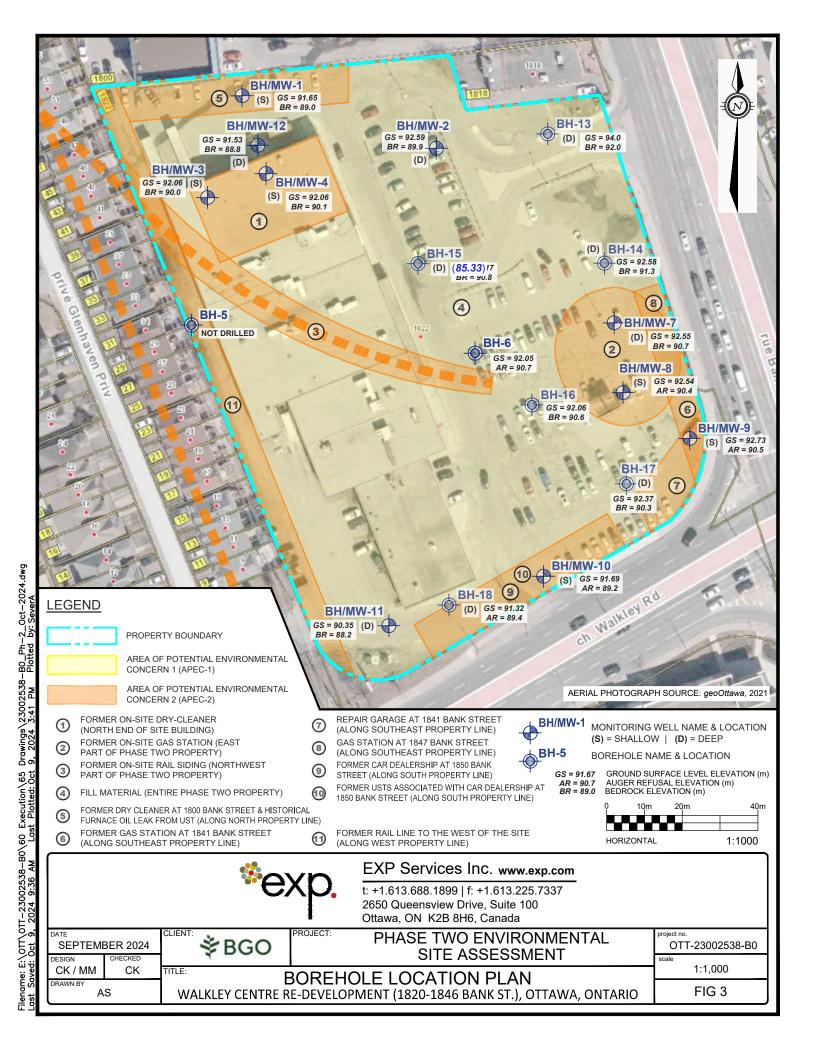
Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix A: Figures** 





.23002538-B0\60 124 9:36 AM Las



BH/MW-1 (S) GS = 91.65 BR = 89.0

BH/MW-4

(S) GS = 92.06BR = 90.1

**BH/MW-12** 

GS = 91.53

(D)

BR = 88.8

BH/MW-3

GS = 92.06 (S) BR = 90.0

BH/MW-2

(D)

GS = 92.59 BR = 89.9

PH24-1

GS = 92.19

BR = 90.1

1. THE BOUNDARIES, SOIL AND ROCK TYPES HAVE BEEN ESTABLISHED ONLY AT BOREHOLE LOCATIONS. BETWEEN BOREHOLES THEY ARE ASSUMED AND MAY BE SUBJECT TO CONSIDERABLE ERROR.

**BH-13** 

PH24-2

GS = 93.59

(D) GS = 94.0

BR = 92.0

-GS = 92.58

BR = 91.3

BR = 90.7

BH/MW-7

BH/MW-8

**BH-17** 

(D)

GS = 92.37

HORIZONTAL

(D) GS = 92.55

(S) GS = 92.54 AR = 90.4

BR = 90.7

Bankst

40m

1:1000

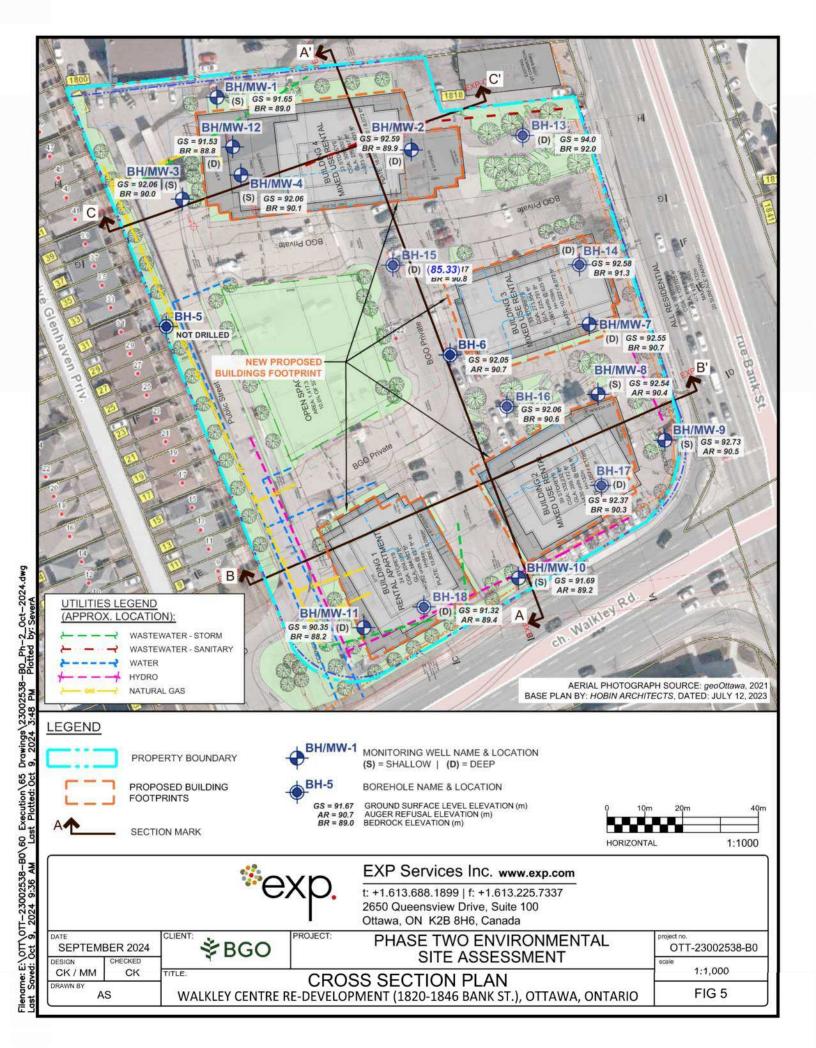
BH/MW-9 (S) GS = 92.73 AR = 90.5

- DESTROYED UNLESS THE CLIENT ADVISES THAT AN EXTENDED TIME PERIOD IS REQUIRED.
- 4. BOREHOLE ELEVATIONS SHOULD NOT BE USED TO DESIGN BUILDING(S) OR FLOOR SLABS OR PARKING
- 5. THIS DRAWING FORMS PART OF THE REPORT PROJECT NUMBER AS REFERENCED AND SHOULD BE USED

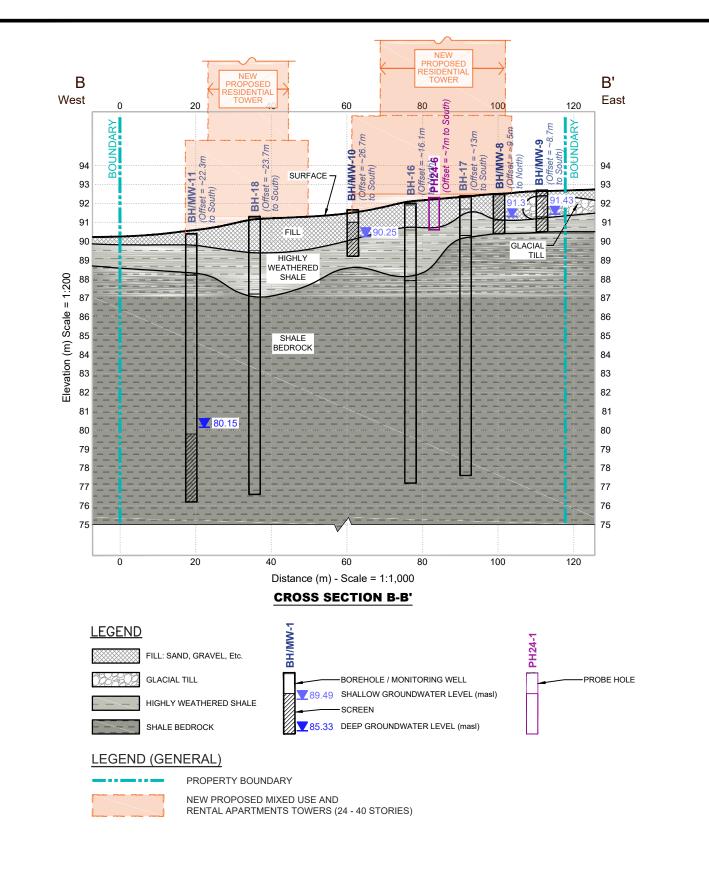
			Ottawa, ON K2B 8H6, Canada	
SEPTEMI	BER 2024	CLIENT: BGO	PROJECT: PHASE TWO ENVIRONMENTAL	project no. OTT-23002538-B0
DESIGN	CHECKED		SITE ASSESSMENT	scale
CK / MM	SEPTEMBER 2024  SIGN CHECKED  CK / MM CK T	TITLE: TEST HOLE	LOCATION PLAN (BEDROCK DEPTHS)	1:1,000
DRAWN BY AS			E-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO	FIG 3b

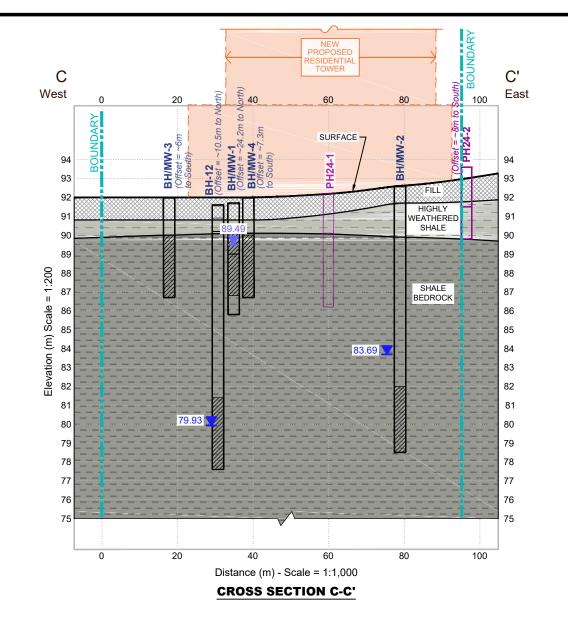
Filename: E:\OTT\OTT-23002538-B0\60 Execution\65 Drawings\23002538-B0\_Ph-2\_Oct-2024.dwg

Filename: E:\OTT\OTT-23002538-B0\60 Execution\65 Drawings\23002538-B0\_Ph-2\_Oct-2024.dwg



Filename: E:\OTT\OTT-2302538-B0\60 Execution\65 Drawings\23002538-B0\_Ph-2\_Oct-2024.dwg Last Saved: Oct 9, 2024 9:36 AM Last Plotted: Oct 9, 2024 3:49 PM Plotted by: SeverA







CROSS SECTIONS B-B' & C-C'

WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

**₿BGO** 

SEPTEMBER 2024

CK / MM

PHASE TWO ENVIRONMENTAL

SITE ASSESSMENT

OTT-23002538-B0

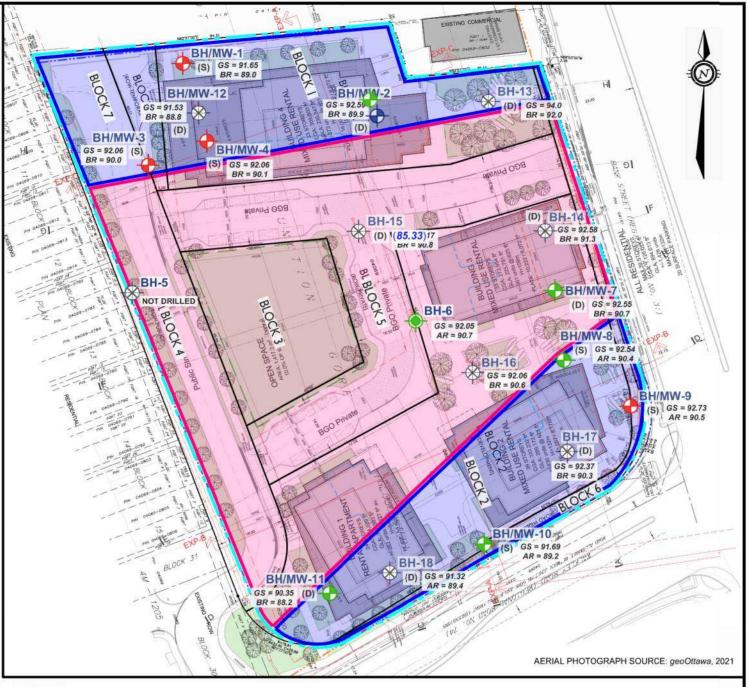
H = 1:1,000 | V = 1:200

FIG 6B

BH-1	Depth (mbgs)	В	E	T	X	F1	F2	F3	F4	FAC	1 4 A DCA	4 2 DCA	1 4 A DOE	- 4 2 DCF	A 4 2 DCE	PCE	TOF	
			-	l!	^	L1	L L	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	1-1,2-DCE	PCE	TCE	
SS1	0.9 to 1.5	< 0.0060	< 0.010	< 0.020	<0.020	<10	<10	<50	<50	**	< 0.040	< 0.049	<0.040	<0.040	< 0.040	0.16	<0.010	
DUP 1	0.9 to 1.5	< 0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50	3.00	<0.040	< 0.049	< 0.040	< 0.040	< 0.040	0.27	<0.010	1
SS3	1.7 to 2.3	<0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50	(*:	<0.040	< 0.049	<0.040	<0.040	< 0.040	0.90	<0.010	
	Anna and an anna an a					0.000			50,500	1				Land of Charles		Simon .	V-0.00	_
BH-2	Depth (mbgs)		0				W.		P.0				545	-10 0-			9.0	3
DI1-Z	Deput (mugs)	В	E	Т	Х	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	Τ
SS1	0.2 to 0.8	<0.0060	< 0.010	<0.020	< 0.020	<10	<10	<50	<50	140	< 0.040	< 0.049	< 0.040	<0.040	< 0.040	< 0.040	< 0.010	-
AS3	1.7 to 2.3	<0.0060	<0.010	<0.020	0.12	50	44	<50	<50	(**	<0.040	< 0.049	<0.040	<0.040	<0.040	< 0.040	<0.010	
									<u> </u>									
BH-3	Depth (mbgs)															Inches III		14
33(3000)	CONTRACTOR OF THE STATE OF THE	В	E	T	Х	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE			PCE	TCE	
SS1	0.1 to 1.2	<0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50		<0.040	<0.049	<0.040	<0.040	<0.040	1.7	<0.010	
	T																	14
BH-4	Depth (mbgs)	В	Е	Т	х	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1.1-DCE	c-1,2-DCE	+4.2 DCE	PCE	TCE	Т.
SS2	1.2 to 1.5	<0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50	F4 G	<0.040	<0.049	<0.040	<0.040	<0.040	0.89	<0.010	-
332	1,2 to 1.3	<0.0000	<0.010	V0.020	<0.020	<10	<10	\ 00	<b>100</b>		V0.040	<0.049	V0.040	<0.040	<0.040	0.09	<0.010	L
<b>E</b> A.5																		2
BH-6	Depth (mbgs)	В	Е	Т	X	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1.2-DCE	PCE	TCE	Т
SS1	0.1 to 0.7	<0.0060	< 0.010	<0.020	<0.020	<10	<10	<50	<50		<0.040	< 0.049	< 0.040	<0.040	< 0.040	< 0.040	<0.010	
SS2	0.9 to 1.3	<0.0060	< 0.010	<0.020	0.066	26	34	<50	<50		<0.040	< 0.049	<0.040	<0.040	<0.040	<0.040	<0.010	1
COL	0.0 2 1.0	-0.0000	0.010	-0.020	0.000						0.010	-0.010	0.010	0.010	0.010	-0.010	-0.010	+
DII 7	5																	2
BH-7	Depth (mbgs)	В	E	T	X	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	Τ
SS2A	0.9 to 1.2	< 0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50		<0.040	< 0.049	<0.040	<0.040	<0.040	< 0.040	<0.010	
SS2B	1.2 ti 1.5	<0.0060	<0.020	<0.020	<0.020	32	<20	<95	<50		< 0.040	< 0.049	<0.040	< 0.040	<0.040	< 0.040	<0.010	
		1/2									1		1	1				
BH-8	Depth (mbgs)			0 0				_		30	(d)						60	2
5.1.0	Depar (mogo)	В	E	T	X	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1,2-DCE	PCE	TCE	
AS3	1.5 to 2.1	0.092	0.14	0.063	0.45	<10	<10	170	510	2500	<0.040	< 0.049	< 0.040	<0.040	<0.040	< 0.040	<0.010	100
					^ _		***	-	To-								·-	
BH-9	Depth (mbgs)																	20
	N N 50	В	E	T	Х	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	-		PCE	TCE	┸
AS1	0.1 to 0.5	<0.0060	0.01	<0.020	<0.020	<10	<10	150	450	3100	<0.040	< 0.049	<0.040	<0.040	<0.040	<0.040	<0.010	
SS2	0.8 to 2.4	0.029	0.14	0.10	<0.020	13	26	<50	<50		<0.040	<0.049	<0.040	<0.040	<0.040	< 0.040	<0.010	
																		2
BH-10	Depth (mbgs)	n 1	-	-	· · ·	F4	I 50	L 50	F4	F4.0	44004	40004	LAABOE	- 4 a Dorl	440 DCF	DOF	TOF	7
404	0.47 + 0.7	B +0.0000	E	<b>T</b> <0.020	<b>X</b> <0.020	F1	F2	F3	<b>F4</b> 430	F4 G	1,1-DCA	1,2-DCA		c-1,2-DCE	War a Composition of	PCE	TCE	+
AS1	0.17 to 0.7	<0.0060	<0.010	70/20750	- 300000	<10	<10	110	W2525	2400	<0.040	<0.049	<0.040	<0.040	<0.040	<0.040	<0.010	-
SS2	0.9 to 1.5	<0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50		<0.040	<0.049	<0.040	<0.040	<0.040	<0.040	<0.010	1
DUP 2	0.9 to 1.5	<0.0060	<0.010	<0.020	<0.020	<10	<10	<50	<50	. *	<0.040	<0.049	<0.040	<0.040	<0.040	<0.040	<0.010	
	1 2 2 2 2 2																	3
BH-11	Depth (mbgs)	В	Е	Т	Х	F1	F2	F3	F4	F4 G	1,1-DCA	1,2-DCA	1,1-DCE	c-1,2-DCE	t-1 2-DCE	PCE	TCE	T
201	0.1 to 0.7	<0.0060	<0.010	<0.020	<0.020	<10	<10	69	88		<0.040	<0.049	<0.040	<0.040	<0.040	<0.040	<0.010	-
881	U. 1 (U U. /	~U.UUUU	VU.010	V.020	NU.UZU	-10	-10	05	00		NO.040	~0.049	50.040	NO.040	VU.040	~0.040	10.010	
SS1 SS2	0.8 to 1.4	<0.0060	<0.010	<0.020	< 0.020	<10	<10	<50	<50		< 0.040	< 0.049	< 0.040	< 0.040	< 0.040	< 0.040	<0.010	2.

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Benzene	В	0.21
Ethy Ibenzene	E	2
Toluene	T	2.3
Xylenes	X	3.1
PHC F1	PHC F1	55
PHC F2	PHC F2	98
PHC f3	PHC f3	300
PHC F4	PHC F4	2800
1,1-Dichloroethane	1,1-DCA	3.5
1,2-Dichlororethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethy lene	c-1,2-DCE	3.4
Trans-1,2,-Dichlorothy lene	t-1,2-DCE	0.084
Tetrachloroethy lene	PCE	0.28
Trichloroethy lene	TCE	0.061
Vinyl Chloride	VC	0.02

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 SCS Residential
Benzene	В	0.21
Ethy Ibenzene	E	1.1
Toluene	Ť	2.3
Xy lenes	X	3.1
PHC F1	PHC F1	55
PHC F2	PHC F2	98
PHC f3	PHC f3	300
PHC F4	PHC F4	2800
1,1-Dichloroethane	1,1-DCA	3.5
1,2-Dichlororethane	1,2-DCA	0.05
1,1-Dichloroethylene	1,1-DCE	0.05
Cis-1,2-Dichloroethylene	c-1,2-DCE	3.4
Trans-1,2,-Dichlorothylene	t-1,2-DCE	0.084
Tetrachloroethy lene	PCE	0.28
Trichloroethy lene	TCE	0.061
Viny I Chloride	VC	0.02





PROPERTY BOUNDARY



SAMPLE EXCEEDS TABLE 7 SCS REGULATIONS SAMPLE MEETS TABLE 7 SCS REGULATIONS

NOT SAMPLED

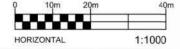
BH/MW-1
MONITORING WELL NAME & LOCATION (S) = SHALLOW | (D) = DEEP

GS = 91.67 GROUND SURFACE LEVEL ELEVATION (m)
AR = 90.7 AUGER REFUSAL ELEVATION (m)
BEDROCK ELEVATION (m)

BOREHOLE NAME & LOCATION



TABLE 7 (BEDROCK DEPTH < 2m)





PROJECT:

EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

**₿BGO** SEPTEMBER 2024 CK / MM CK

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

OTT-23002538-B0 1:1,000

FIG 7

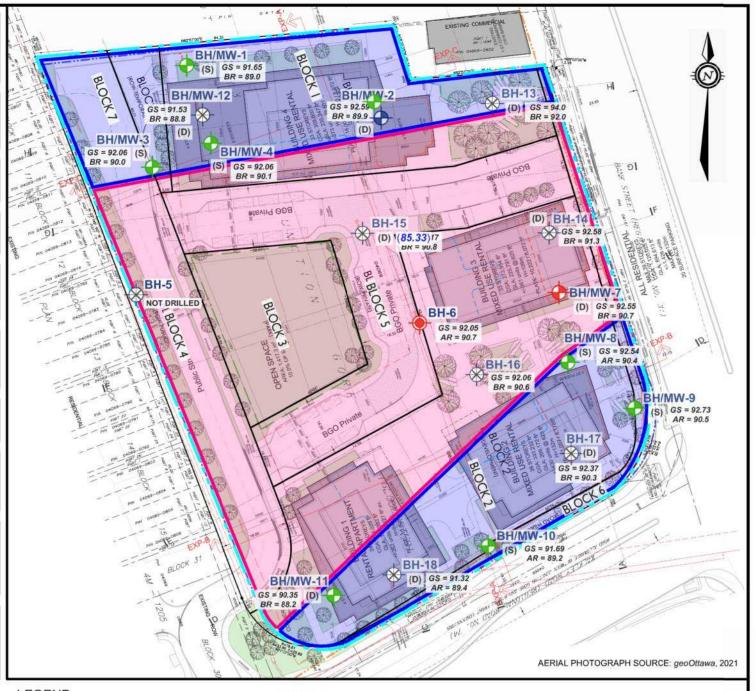
SOIL ANALYTICAL RESULTS - PHC & VOC WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

me: E:\OTT\OTT-23002538-B0\60 Execution\65 Drawings\23002538-B0\_Ph-2\_0ct-2024.dwg Saved: Oct 9, 2024 9:36 AM Last Plotted: Oct 9, 2024 3:50 PM Plotted by: SeverA

BH-1	Depth (mbgs)																	26-Oct
BH-1	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
SS1	0.9 to 1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	<0.00
DUP 1	0.9 to 1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	<0.00
SS3	1.7 to 2.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	0.0069	<0.0
						-											-	30-Oc
BH-2	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	P)
SS1	0.2 to 0.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.011	<0.0050	0.0071	<0.0
AS3	1.7 to 2.3	<0.0050	<0.0050	<0.0050	0.0070	0.0061	0.010	<0.0050	<0.0050	0.0064	<0.0050	0.015	<0.0050	<0.0050	<0.0071	<0.0050	0.0065	0.0
	T	r -																4.0-
BH-3	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	P	4-De
SS1	0.1 to 1.2	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	_
		0.0000	-0.0000	-0.0000	0.0000	-0.0000	0.0000	-0.0000	-0.0000	-0.0000	-0.0000	-0.0000	0.0000	-0.0000	-0.0011	-0.0000	-0.0000	
BH-4	Depth (mbgs)																	14-D
777771434		Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N		F
SS2	1.2 to 1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	<0.0
	T	Ĭ																27-0
BH-6	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	P
SS1	0.1 to 0.7	0.18	0.0073	0.64	0.91	0.66	0.87	0.24	0.31	0.73	0.099	2.1	0.29	0.29	0.075	0.035	2.1	1
SS2	0.9 to 1.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	0.011	<0.0
	T	r																27-0
BH-7	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	P
SS2A	0.9 to 1.2	0.012	<0.0050	0.16	0.45	0.38	0.52	0.17	0.20	0.37	0.061	0.86	0.024	0.19	0.043	0.0078	12/	0.7
SS2B	1.2 ti 1.5	0.069	<0.0050	0.22	0.58	0.58	0.78	0.27	0.30	0.46	0.093	0.99	0.048	0.31	0.053	0.016	0.40	0.8
	A.					0 7											I.	
BH-8	Depth (mbgs)													22 2				27-0
		Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N		P
AS3	1.5 to 2.1	<0.050	<0.050	0.091	0.24	0.21	0.30	0.10	0.12	0.19	<0.050	0.51	<0.050	0.12	<0.071	<0.050	0.36	0.3
	T	ſ																26-0
BH-9	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	F
AS1	0.1 to 0.5	< 0.050	<0.050	< 0.050	<0.050	<0.050	<0.050	< 0.050	< 0.050	<0.050	< 0.050	<0.050	< 0.050	<0.050	< 0.071	<0.050	<0.050	<0.0
SS2	0.8 to 2.4	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	< 0.0071	0.0056	0.010	<0.0
			Li.				-							Lie -		<u> </u>		
BH-10	Depth (mbgs)																P 0.47 (0.40 (0.005) < 27-P 0.47 (0.40 (0.005) < 27-P 0.36 (0.005) < 26-P   Constant   C	26-0
101	0.47 + 0.7	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	C -0.050	DA	FI	F -0.050	I(123)P	T-MN	N		P
AS1	0.17 to 0.7	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.071	<0.050		<0.
SS2 DUP 2	0.9 to 1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	<0.0
DUP Z	0.9 to 1.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0071	<0.0050	<0.0050	<0.0
DU 44	Double (sub-sub-																	30-0
BH-11	Depth (mbgs)	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	P	P
	211.27	< 0.0050	<0.0050	0.016	0.041	0.036	0.053	0.016	0.019	0.038	<0.0050	0.089	0.007	0.015	< 0.0071	< 0.0050	0.068	0.0
SS1	0.1 to 0.7	~0.0000	-0.0000	200000	- CHARLES	-20.000	1.00											
SS1 SS2	0.1 to 0.7 0.8 to 1.4	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0055	< 0.0050	<0.0050	< 0.0071	<0.0050	<0.0050	<0.0

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 SCS Residential
Acenaphthene	Ace	7.9
Acenaphthy lene	AcI	0.15
Anthracene	An	0.67
Benzo(a)anthracene	B(a)A	0.5
Benzo(a)py rene	B(a)P	0.3
Benzo(b/j)fluoranthene	B(b/j)F	0.78
Benzo(g,h,i)pery lene	B(ghi)P	6.6
Benzo(k)fluoranthene	B(k)F	0.78
Chrysene	C	7
Dibenzo(a,h)anthracene	DA	0.1
Fluoranthene	FI	0.69
Fluorene	F	62
Indeno(1,2,3-cd)py rene	I(123)P	0.38
Methy Inaphthalene, 2-(1-)	T-MN	0.99
Naphthalene	N	0.6
Phenanthrene	Р	6.2
Pyrene	Py	78

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 SCS Residential				
Acenaphthene	Ace	7.9				
Acenaphthy lene	AcI	0.15				
Anthracene	An	0.67				
Benzo(a)anthracene	B(a)A	0.5				
Benzo(a)py rene	B(a)P	0.3				
Benzo(b/j)fluoranthene	B(b/j)F	0.78				
Benzo(g,h,i)pery lene	B(ghi)P	6.6				
Benzo(k)fluoranthene	B(k)F	0.78				
Chrysene	С	7				
Dibenzo(a,h)anthracene	DA	0.1				
Fluoranthene	FI	0.69				
Fluorene	F	62				
Indeno(1,2,3-cd)py rene	I(123)P	0.38				
Methy Inaphthalene, 2-(1-)	T-MN	0.99				
Naphthalene	N	0.6				
Phenanthrene	Р	6.2				
Py rene	Py	78				





PROPERTY BOUNDARY

SAMPLE EXCEEDS TABLE 7 SCS REGULATIONS SAMPLE MEETS TABLE 7 SCS REGULATIONS

BOREHOLE NAME & LOCATION

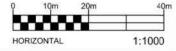
BH/MW-1 MONITORING WELL NAME & LCCATION (S) = SHALLOW | (D) = DEEP

GS = 91.67 GROUND SURFACE LEVEL ELEVATION (m)
AR = 90.7 AUGER REFUSAL ELEVATION (m)
BEDROCK ELEVATION (m)



DEPTH < 2m)

TABLE 3 (BEDROCK





PROJECT:

EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

**₿BGO** SEPTEMBER 2024 CK / MM CK

NOT SAMPLED

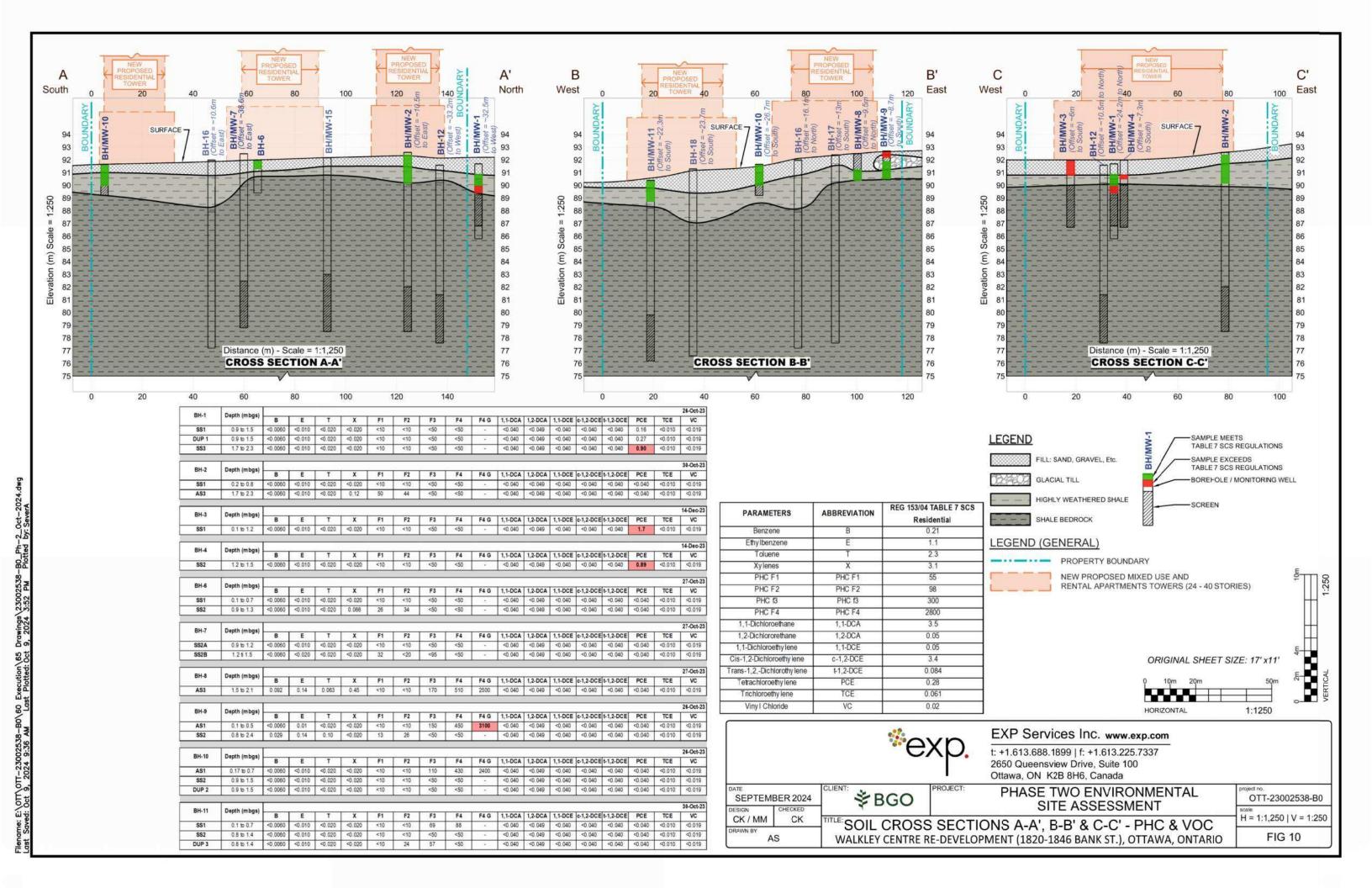
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

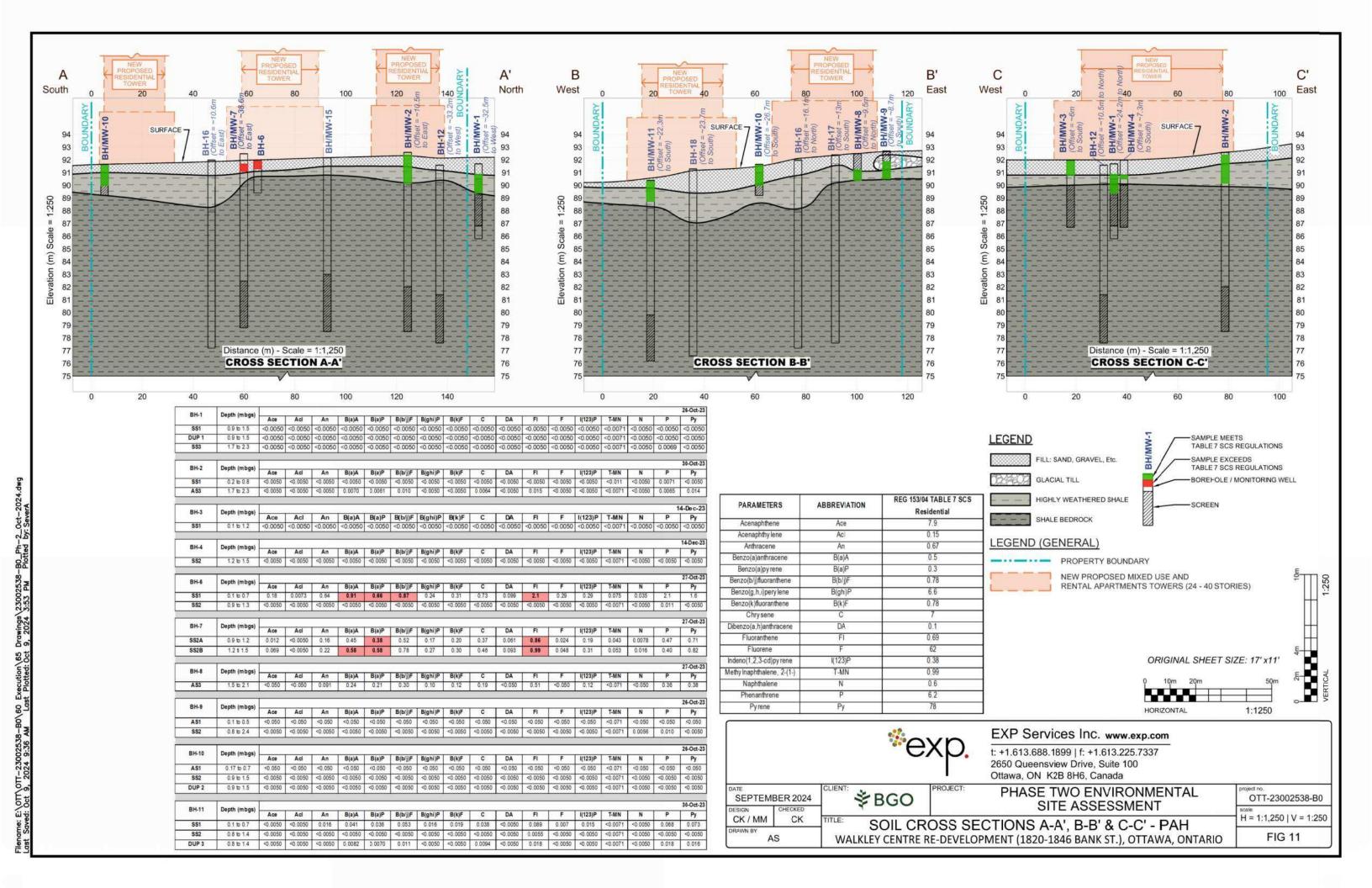
OTT-23002538-B0 1:1,000 FIG 8

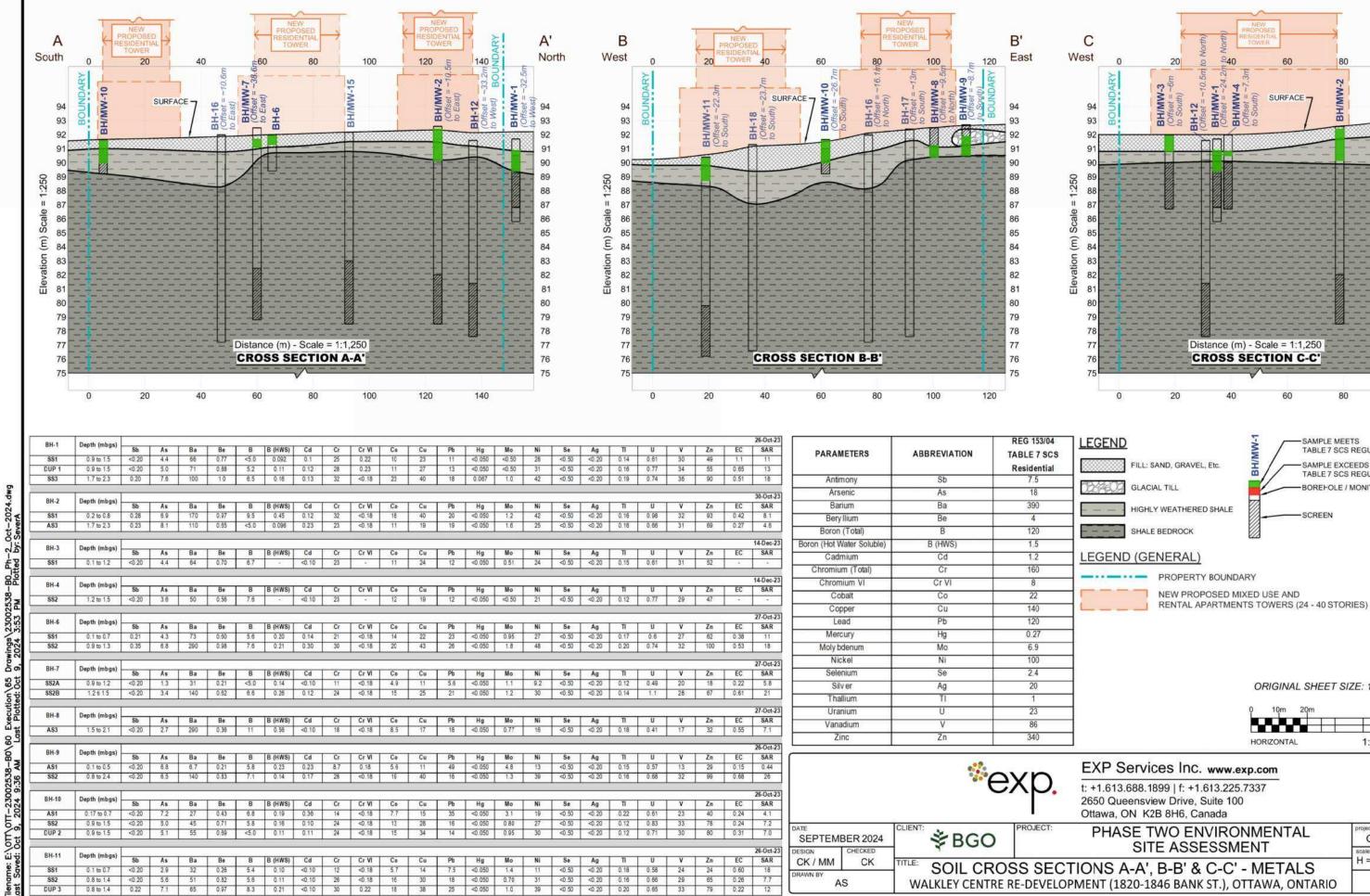
SOIL ANALYTICAL RESULTS - PAH WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

me: E:\OIT\OIT-23002538-B0\60 Execution\65 Drawings\23002538-B0\_Ph-2\_Oct-2024.dwg Saved: Oct 9, 2024 9:36 AM Last Plotted: Oct 9, 2024 3:51 PM Plotted by: SeverA

SS1         0.9 b 1.5         <0.20	1 <0.050 <0.50	26-Oct-23 EC SAR 1.1 11 0.65 13 0.51 18 BH/MW-1 (S) GS = 91.65 BR = 89.0 BH-13
AS3 1.7 b 2.3 0.23 8.1 110 0.65 <5.0 0.096 0.23 23 <0.18 11 19 19 19 19 19 19 19 19 19 19 19 19	9 <0.050 1.6 25 <0.50 <0.20 0.16 0.66 31 69 0	0.42 8.1 0.27 4.6 BR = 88.8 BH/MW-3 EC SAR = 92.06 (S) 14-Dec-23 BH/MW-4 (S) GS = 92.06 (S) BR = 90.0 BH/MW-4 (S) GS = 92.06 (S) BR = 90.0 BH/MW-4 BR = 90.0 BH/MW-4 BR = 90.0 BH/MW-4 BR = 90.0 BH/MW-4
SS2   1.2 b 1.5   <0.20   3.6   50   0.56   7.6   -   <0.10   23   -   12   19   19   19   19   19   19   19	2 <0.050 <0.50 21 <0.50 <0.20 0.12 0.77 29 47 b Hg Mo Ni Se Ag Ti U V Zn 3 <0.050 0.95 27 <0.50 <0.20 0.17 0.6 27 62 0	EC SAR
SS2A   0.9 b 1.2   <0.20   1.3   31   0.21   <5.0   0.14   <0.10   11   <0.18   4.9   11   5	6 < <0.050	27-Oct-23 EC SAR 0.22 5.8 0.61 21  27-Oct-23 EC SAR (D) GS = 92.55 BR = 90.7  BH/MW-8 EC SAR
BH-9   Depth (mbgs)   Sb   As   Ba   Be   B   B (HWS)   Cd   Cr   Cr VI   Co   Cu   F	b Hg Mo Ni Se Ag TI U V Zn 9 <0.050 4.8 13 <0.50 <0.20 0.15 0.57 13 29 0	EC SAR 0.55 7.1  26-Oct-23  EC SAR 0.15 0.44 0.68 26  28-Oct-23  28-Oct-23  28-Oct-23
AS1	5 < 0.050 3.1 19 < 0.50 < 0.20 0.22 0.61 23 40 0 0 0 0 0.050 0.80 27 < 0.50 < 0.20 0.12 0.83 33 78 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EC SAR 0.24 4.1 0.24 7.2 0.31 7.0 26-Oct-23 EC SAR
SS2	8 <0.050 0.70 31 <0.50 <0.20 0.16 0.66 29 65 0	0.60 18 0.26 7.7 0.22 12 BH/MW-11 GS = 90.35 (D) GS = 91.32 AR = 89.4 BR = 88.2
3:51 PM Plotted by	Antimony         Sb         7.5           Arsenic         As         18           Barium         Ba         390           Beryllium         Be         4           Boron (Total)         B         120	AERIAL PHOTOGRAPH SOURCE: geoOttawa, 2021
otted: Oct 9, 2024	Cadmium   Cd   1.2	PROPERTY BOUNDARY  BH/MW-1  MONITORING WELL NAME & LOCATION  (S) = SHALLOW   (D) = DEEP  SAMPLE EXCEEDS TABLE 7 SCS REGULATIONS  BH-5  BOREHOLE NAME & LOCATION
d: Oct 9, 2024 9:36 AM Last Plo	Mercury         Hg         0.27           Moly bdenum         Mo         6.9           Nickel         Ni         100           Selenium         Se         2.4           Silver         Ag         20           Thallium         TI         1           Uranium         U         23           Vanadium         V         86	SAMPLE MEETS TABLE 7 SCS REGULATIONS  NOT SAMPLED  GS = 91.67 AR = 90.7 BR = 89.0  GROUND SURFACE LEVEL ELEVATION (m) AUGER REFUSAL ELEVATION (m) BEDROCK ELEVATION (m)  HORIZONTAL  1:1000  EXP Services Inc. www.exp.com t: +1.613.688.1899   f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada
Filename: E.\OTT\OTT	DESIG	PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  SOIL ANALYTICAL RESULTS - METALS  1:1,000







C'

76

100

OTT-23002538-B0

H = 1:1,250 | V = 1:250

FIG 12

SAMPLE MEETS

ORIGINAL SHEET SIZE: 17' x11'

SAMPLE EXCEEDS

TABLE 7 SCS REGULATIONS

TABLE 7 SCS REGULATIONS

BOREFOLE / MONITORING WELL

100

BH/MW-1

BH-12

BH/MW-

Distance (m) - Scale = 1:1,250

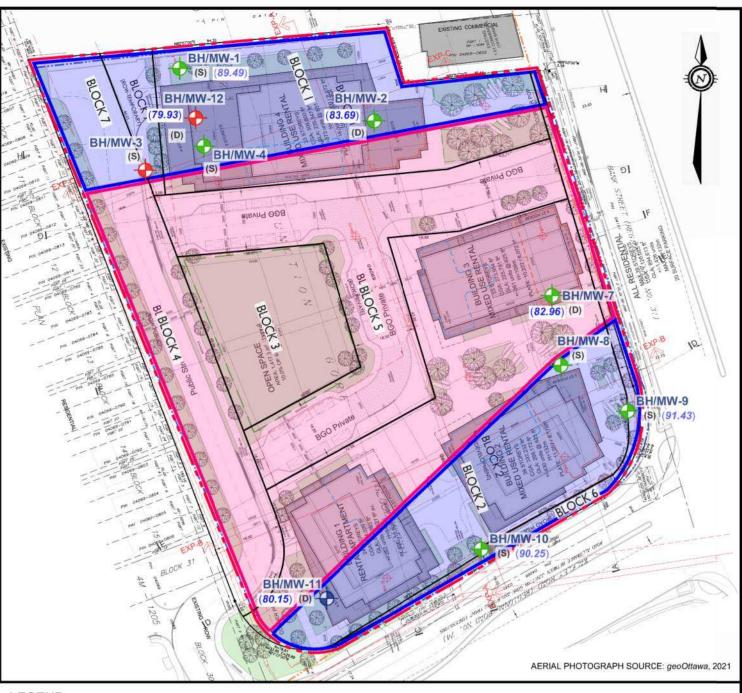
CROSS SECTION C-C'

SURFACE 7

East

	al 1.5 to 4.		5555														BH/MW-1
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
< 0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	1.7	<200	<200	<100	<25	<0.20	<0.20	< 0.20	<0.17	30-Nov-23
< 0.20	<0.20	<0.20	<0.50	< 0.50	<0.20	<0.50	<0.20	0.34	100	-		8*8	<0.20	<0.20	< 0.20	<0.20	25-Mar-24
< 0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	0.34		3	8	•	<0.20	<0.20	<0.20	<0.20	20-Jun-24
< 0.20	< 0.20	<0.20	< 0.50	< 0.50	<0.20	<0.50	<0.20	<0.20			-	850	0.33	<0.20	<0.20	<0.20	24-Sep-24
1 mbs	11.1 to 14.	Interval 1	Scroon								3 5						BH/MW-2
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	Е	T	В	DATE
<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	1.7	33.5	12	1.1	<0.20	<0.20	<0.20	4.6	20-Jun-24
<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	154				<0.20	<0.20	<0.20	1.6	24-Sep-24
\U.ZI	V0.20	Q0.20	V0.30	V0.30	V0.20	VU.49	V0.20	NO.20			-		V0.20	10.20	10.20	1.0	24-36p-24
6 mb	al 2.6 to 5.	n Interva	Scree														BH/MW-3
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
< 0.20	<0.20	3	< 0.50	< 0.50	<0.20	< 0.49	<0.20	4.6	180	-		79E	<0.20	<0.20	< 0.20	<0.20	21-Dec-23
< 0.20	<0.20	0.47	<0.50	< 0.50	<0.20	<0.49	<0.20	<0.20	( <b>*</b> 3	-	*	8*8	<0.20	<0.20	<0.20	<0.20	15-Mar-24
< 0.20	<0.20	0.47	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	:53	-		8.58	<0.20	<0.20	<0.20	<0.20	20-Jun-24
<0.20	<0.20	3.8	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	-	-		-	<0.20	<0.20	<0.20	<0.20	24-Sep-24
						,											
	al 2.4 to 5.																BH/MW-4
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
<0.2	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	1.1	- 199	-	8	(書名 )]	0.66	<0.20	2.1	0.34	21-Dec-23
<0.2	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	-20	-	22	543	1.7	0.26	1.4	<0.20	15-Mar-24
< 0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	0.34	(180)		*	3 <b>*</b> €	<0.20	<0.20	<0.20	<0.20	20-Jun-24
<0.2	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	•	•	-	•	<0.20	<0.20	<0.20	<0.20	24-Sep-24
7 mbc	10.3 to 13.	Interval 1	Screen														BH/MW-7
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
< 0.20	<0.20	<0.20	< 0.50	< 0.50	<0.20	<0.50	<0.20	2.3	<200	<200	<100	<25	0.28	<0.20	0.81	0.41	6-Dec-23
in Estate			250052	210000	-2.52		25000	7000			10000	579257	22,4232	88475260	(058589)	S2555	
	al 0.7 to 2.																BH/MW-8
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
< 0.20	<0.20	<0.20	< 0.50	< 0.50	<0.20	<0.50	<0.20	<0.20	<200	<200	<100	520	99	57	1.0	42	6-Dec-23
15	-	100		1885 1885		150	3		<200	<200	<100	<25	2.5	1.2	<0.20	0.7	15-Mar-24
9	9			-	-				<200	<200	<100	<25	2.3	1.2	< 0.20	0.69	DUP
*			-	*:	(4)				<200	<200	<100	72	3.1	6.5	0.3	4.2	20-Jun-24
•	- 6	•		•		(3)	-	*	<200	<200	<90	<25	<0.40	0.69	<0.20	2.2	24-Sep-24
2 mb	al 0.9 to 2.	n Interve	Saraa														BH/MW-9
VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	Х	E	Т	В	DATE
<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	<0.20	<200	<200	<100	<25	<0.20	<0.20	<0.20	<0.17	29-Nov-23
-0.21	30.20	50.20	40.00	70.00	~0.20	-0.00	-0.20	~V.ZU	~200	~200	-100	-20	-0.20	-0.20	~V.ZU	30.17	201101-23
	al 1.0 to 2.	n Interva	Scree														BH/MW-10
5 mb	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	X	E	T	В	DATE
		<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	< 0.20	<200	<200	<100	<25	<0.20	< 0.20	< 0.20	0.54	29-Nov-23
VC	<0.20	-0.20			-0.20	<0.50	<0.20	<0.20	<200	<200	<100	<25	<0.20	<0.20	< 0.20	0.51	DUP
<b>VC</b>	<0.20	<0.20	< 0.50	< 0.50	< 0.20			-	-	-			<0.40	<0.20	<0.20	<0.20	20-Jun-24
	2.00	2.00	<0.50	<0.50		-									< 0.20	<0.20	24-Sep-24
<b>VC</b> <0.2	2.00	<0.20								14		· •	< 0.40	< 0.20	NU.20		
<0.20	<0.20	<0.20	•		-	-				*			<0.40	<0.20	NO.20		
VC <0.20 <0.20	<0.20 - - 11.0 to 14.	<0.20 - - Interval 1	Screen	(#) (#)	•	*	*\										BH/MW-12
VC <0.20 <0.20 - - - VC	<0.20 - - 11.0 to 14.	<0.20 Interval 1 PCE	Screen	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	- CF	F4	F3	F2	F1	X	E	Т	В	BH/MW-12 DATE
VC <0.2 <0.2 - - - VC <0.2	<0.20 - - 11.0 to 14. TCE <0.20	<0.20 Interval 1 PCE 0.73	Screen t-1,2-DCE <0.50	<b>c-1,2-DCE</b> <0.50	1,1-DCE <0.20	1,2-DCA <0.50	1,1-DCA <0.20	- CF 1.6	F4 <200	F3 <200	F2 <100	F1 <25	X 0.96	E <0.20	T 1.5	<b>B</b> 0.91	BH/MW-12 DATE 6-Dec-23
VC <0.20 <0.20 - - - - VC	<0.20 - - 11.0 to 14.	<0.20 Interval 1 PCE	Screen	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	- CF	F4	F3	F2	F1	X	E	Т	В	BH/MW-12 DATE

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 3 STANDARDS				
Benzene	В	44				
l oluene	1	18000				
Ethy Ibenzene	E	2300				
l otal Xy lenes	X	4200				
F1	F1 (C6-C10)	750				
F2	F2 (C10-C16)	150				
F3	F3 (C16-C34)	500				
F4	F4 (C34-C50)	500				
Chloroform	CF	2,4				
1,1-Dichloroethane	1,1-DCA	320				
1,2-Dichlororethane	1,2-DCA	1.6				
1,1-Dichloroethylene	1,1-DCE	1.6				
Cis-1,2-Dichloroethylene	c-1,2-DCE	1.6				
I rans-1,2,-Dichlorothy lene	1-1,2-DCE	1.6				
l etrachloroethy lene	PCE	1,6				
Trichloroethy lene	TCE	1.6				
Viny I Chloride	VC	0.5				







PROPERTY BOUNDARY

SAMPLE EXCEEDS TABLE 7 SCS REGULATIONS SAMPLE MEETS TABLE 7 SCS REGULATIONS

BH/MW-1 2023 MONITORING WELL NUMBER & LOCATION (S) = SHALLOW | (D) = DEEP

TABLE 3 (BEDROCK DEPTH > 2m)

TABLE 7 (BEDROCK DEPTH < 2m)

(89.49) SHALLOW GROUNDWATER LEVEL (masl) (83.69) DEEP GROUNDWATER LEVEL (masl)



PROJECT:

EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

**₿BGO** SEPTEMBER 2024 CK / MM

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

1:1,000 FIG 13

OTT-23002538-B0

GROUNDWATER ANALYTICAL RESULTS - PHC & VOC WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

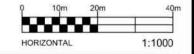
1	.6 mbgs	1.5 to 4	n Interva	Scree														BH/MW-1
	VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	Х	E	T	В	ATE
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	< 0.50	<0.20	1.7	<200	<200	<100	<25	<0.20	<0.20	<0.20	<0.17	30-Nov-23
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	0.34		-	- 1	+	<0.20	<0.20	<0.20	<0.20	25-Mar-24
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	< 0.50	<0.20	0.34	-	-	-	-	<0.20	<0.20	<0.20	<0.20	20-Jun-24
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.50	<0.20	<0.20			-	+	0.33	<0.20	<0.20	<0.20	24-Sep-24
8	.1 mba	1.1 to 14	Interval 1	Screen		^											T	BH/MW-2
	VC	TCE	PCE		c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	Х	E	T	В	ATE
	< 0.20	<0.20	< 0.20	<0.50	<0.50	< 0.20	< 0.49	<0.20	<0.20	1.00	1342	-		<0.20	<0.20	<0.20	4.6	20-Jun-24
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	0±	•		÷	<0.20	<0.20	<0.20	1.6	24-Sep-24
S	6 mba	2 6 to 5	n Interva	Scree						.,					,		ř	BH/MW-3
	VC	TCE	PCE		c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	Х	E	T	В	ATE
	<0.20	<0.20	3	<0.50	<0.50	<0.20	< 0.49	<0.20	4.6	-	*	-	*	<0.20	<0.20	<0.20	<0.20	21-Dec-23
i	<0.20	<0.20	0.47	<0.50	<0.50	<0.20	< 0.49	<0.20	<0.20	(4)		-	-	<0.20	<0.20	<0.20	<0.20	15-Mar-24
-	<0.20	<0.20	0.47	<0.50	<0.50	<0.20	< 0.49	<0.20	<0.20	1.0	- 30	-	-	<0.20	<0.20	<0.20	<0.20	20-Jun-24
	<0.20	<0.20	3.8	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20	.00	9)	3	9	<0.20	<0.20	<0.20	<0.20	24-Sep-24
5	.4 mba	2.4 to 5	n Interva	Scree													r	BH/MW-4
-	VC	TCE	PCE	t-1,2-DCE	c-1,2-DCE	1,1-DCE	1,2-DCA	1,1-DCA	CF	F4	F3	F2	F1	Х	E	T	В	ATE
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	1.1				*	0.66	<0.20	2.1	0.34	21-Dec-23
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20		-	-	-	1.7	0.26	1.4	<0.20	15-Mar-24
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	< 0.49	<0.20	0.34			-	*	<0.20	<0.20	<0.20	<0.20	20-Jun-24
	<0.20	<0.20	<0.20	<0.50	<0.50	<0.20	<0.49	<0.20	<0.20			- 8		<0.20	<0.20	<0.20	<0.20	24-Sep-24
_												- 1/-					r	
S	.7 mba	0.3 to 13	Interval 1	Screen														BH/MW-7
S			Interval 1		c-1.2-DCE	1.1-DCE	1.2-DCA	1.1-DCA	CF	F4	F3	F2	F1	X	E	T	В	BH/MW-7
	VC	0.3 to 13 TCE <0.20	PCE <0.20	t-1,2-DCE <0.50	c-1,2-DCE <0.50	1,1-DCE <0.20	1,2-DCA <0.50	1,1-DCA <0.20	CF 2.3	F4 <200	F3 <200	F2 <100	F1 <25	X 0.28	<0.20	T 0.81	B 0.41	BH/MW-7 ATE 6-Dec-23
	VC	TCE	PCE	t-1,2-DCE	STATE OF THE PARTY	HURACO INCOME	HE TO STATE OF THE	THE STATE OF THE STATE OF	335		1025	118980	3.69(0)	(7/2)	0.5%		100	ATE
	VC <0.20	TCE <0.20	PCE <0.20	t-1,2-DCE <0.50	STATE OF THE PARTY	HURACO INCOME	HE TO STATE OF THE	THE STATE OF THE STATE OF	335	<200	1025	118980	3.69(0)	(7/2)	0.5%		100	6-Dec-23
15	VC <0.20	TCE <0.20 I 0.7 to 2 TCE	PCE <0.20 In Interva	t-1,2-DCE <0.50 Scree t-1,2-DCE	<0.50 c-1,2-DCE	<0.20	<0.50	<0.20	2.3 CF	<200	<200	<100	<25 F1	0.28 X	<0.20	0.81	0.41	ATE 6-Dec-23 BH/MW-8 ATE
S	VC <0.20	TCE <0.20	PCE <0.20	t-1,2-DCE <0.50	<0.50	<0.20	<0.50	<0.20	2.3	<200 F4 <200	<200 F3 <200	<100 F2 <100	<25 F1 520	0.28 X 99	<0.20 E 57	0.81 T 1.0	0.41 B 42	BH/MW-8  6-Dec-23  BH/Control  BH/Control
S	VC <0.20	TCE <0.20 I 0.7 to 2 TCE	PCE <0.20 In Interva	t-1,2-DCE <0.50 Scree t-1,2-DCE	<0.50 c-1,2-DCE	<0.20	<0.50	<0.20	2.3 CF	<200 F4 <200 <200	<200 F3 <200 <200	<100 F2 <100 <100	<25 F1 520 <25	0.28 X 99 2.5	<0.20 E 57 1.2	0.81 T 1.0 <0.20	0.41 B 42 0.7	6-Dec-23  BH/MW-8  ATE  6-Dec-23  15-Mar-24
15	VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 In Interva	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 c-1,2-DCE <0.50	<0.20 1,1-DCE <0.20	<0.50 1,2-DCA <0.50	<0.20 1,1-DCA <0.20	2.3 CF <0.20	<200 F4 <200 <200 <200	<200 F3 <200 <200 <200	<100 F2 <100 <100	<25 F1 520 <25 <25	0.28 X 99 2.5 2.3	<0.20 E 57 1.2	0.81 T 1.0 <0.20 <0.20	0.41 B 42 0.7 0.69	BH/MW-8  BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP
IS	VC <0.20	TCE <0.20 I 0.7 to 2 TCE <0.20	PCE <0.20 en Interva PCE <0.20	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 c-1,2-DCE <0.50	<0.20 1,1-DCE <0.20	<0.50 1,2-DCA <0.50	<0.20 1,1-DCA <0.20	2.3 CF <0.20	<200 F4 <200 <200	<200 F3 <200 <200	<100 F2 <100 <100	<25 F1 520 <25	0.28 <b>X 99</b> 2.5 2.3 3.1	<0.20 E 57 1.2 1.2 6.5	0.81 T 1.0 <0.20 <0.20 0.3	0.41 B 42 0.7 0.69 4.3	BH/MW-8 BH/MW-8 ATE 6-Dec-23 15-Mar-24 DUP 20-Jun-24
IS	VC <0.20 .0 mbg VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 en Interva PCE <0.20	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 c-1,2-DCE <0.50	<0.20 1,1-DCE <0.20	<0.50 1,2-DCA <0.50	<0.20  1,1-DCA <0.20	2.3 CF <0.20	<200  F4  <200 <200 <200 <200 -200	<200  F3 <200 <200 <200 <200 -	<100 F2 <100 <100 <100 -	<25 F1 520 <25 <25 72	0.28 X 99 2.5 2.3 3.1 2.8	<0.20 E 57 1.2 1.2 6.5 5.8	0.81  T 1.0 <0.20 <0.20 0.3 0.3	0.41 B 42 0.7 0.69 4.3 3.8	### ATE 6-Dec-23  ### BH/MW-8  ### 6-Dec-23  ### 15-Mar-24  ### DUP  ### 20-Jun-24  ### DUP
15	VC <0.20 .0 mbg VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 en Interva PCE <0.20	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 <b>c-1,2-DCE</b> <0.50 -	<0.20 1,1-DCE <0.20	<0.50 1,2-DCA <0.50	<0.20  1,1-DCA  <0.20	2.3 CF <0.20	<200  F4  <200  <200  <200  <200	<200  F3 <200 <200 <200 <200 <200	<100 F2 <100 <100 <100	<25 F1 520 <25 <25 72	0.28 <b>X 99</b> 2.5 2.3 3.1	<0.20 E 57 1.2 1.2 6.5	0.81 T 1.0 <0.20 <0.20 0.3	0.41 B 42 0.7 0.69 4.3	BH/MW-8 BH/MW-8 ATE 6-Dec-23 15-Mar-24 DUP 20-Jun-24
IS	VC <0.20	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 <b>c-1,2-DCE</b> <0.50 - -	<0.20 1,1-DCE <0.20	<0.50 1,2-DCA <0.50 - -	<0.20   1,1-DCA     <0.20	2.3 CF <0.20	<200  F4  <200 <200 <200 <200 -200	<200  F3 <200 <200 <200 <200 - <200	<100 F2 <100 <100 <100 -	<25 F1 520 <25 <25 72	0.28 X 99 2.5 2.3 3.1 2.8	<0.20 E 57 1.2 1.2 6.5 5.8	0.81  T 1.0 <0.20 <0.20 0.3 0.3	0.41 B 42 0.7 0.69 4.3 3.8	### ATE 6-Dec-23  ### BH/MW-8  ### 6-Dec-23  ### 15-Mar-24  ### DUP  ### 20-Jun-24  ### DUP
) )	VC <0.20  O mbg VC <0.20	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 Interva PCE PCE PCE PCE PCE PCE PCE PCE	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 c-1,2-DCE <0.50 - - - - - -	<0.20 1,1-DCE <0.20 1,1-DCE	<0.50  1,2-DCA  <0.50	<0.20 1,1-DCA <0.20	2.3  CF <0.20	<200  F4  <200  <200  <200  <200  -  <200  F4	<200  F3 <200 <200 <200 <200 - <200 F3	<100  F2 <100 <100 <100 <100 - <90  F2	<25 F1 520 <25 <25 72 - <25 F1	0.28 X 99 2.5 2.3 3.1 2.8 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69	0.81  T 1.0  <0.20  <0.20  0.3  0.3  <0.20  T	0.41  B 42 0.7 0.69 4.3 3.8 2.2	BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 B-Dec-23 B-Dec-23 B-Dec-23 B-DuP 20-Jun-24 DUP 24-Sep-24 BH/MW-9 ATE
) )	VC <0.20  0 mbg VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 Interval PCE  Interval	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50	<0.50 <b>c-1,2-DCE</b> <0.50 - - -	<0.20 1,1-DCE <0.20	<0.50	<0.20 1,1-DCA <0.20	2.3 CF <0.20	<200  F4  <200 <200 <200 <200 - <200 -	<200  F3 <200 <200 <200 <200 - <200	<100  F2 <100 <100 <100 <100 - <90	<25 F1 520 <25 <25 72	0.28 <b>X 99</b> 2.5 2.3 3.1 2.8 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69	0.81  T 1.0 <0.20 <0.20 0.3 0.3	0.41  B 42 0.7 0.69 4.3 3.8 2.2	### ATE  6-Dec-23  ### BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  #### BH/MW-9
) )	VC <0.20  O mbg VC <0.20  Z mbg VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 Interva PCE PCE PCE PCE PCE PCE PCE PCE	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50 	<0.50 c-1,2-DCE <0.50 - - - - - -	<0.20 1,1-DCE <0.20 1,1-DCE	<0.50  1,2-DCA  <0.50	<0.20 1,1-DCA <0.20	2.3  CF <0.20	<200  F4  <200  <200  <200  <200  -  <200  F4	<200  F3 <200 <200 <200 <200 - <200 F3	<100  F2 <100 <100 <100 <100 - <90  F2	<25 F1 520 <25 <25 72 - <25 F1	0.28 X 99 2.5 2.3 3.1 2.8 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69	0.81  T 1.0  <0.20  <0.20  0.3  0.3  <0.20  T	0.41  B 42 0.7 0.69 4.3 3.8 2.2	BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 B-Dec-23 B-Dec-23 B-Dec-23 B-DuP 20-Jun-24 DUP 24-Sep-24 BH/MW-9 ATE
IS	VC <0.20 .0 mbg VC <0.20 .2 mbg VC <0.20	TCE <0.20 1 0.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50 	<0.50 c-1,2-DCE <0.50 - - - - c-1,2-DCE <0.50	<0.20 1,1-DCE <0.20 1,1-DCE <0.20	<0.50  1,2-DCA <0.50	<0.20 1,1-DCA <0.20 1,1-DCA <0.20	2.3  CF <0.20	<200  F4  <200  <200  <200  <200  -  <200  F4	<200  F3 <200 <200 <200 <200 - <200 F3	<100  F2 <100 <100 <100 <100 - <90  F2	<25 F1 520 <25 <25 72 - <25 F1	0.28 X 99 2.5 2.3 3.1 2.8 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69	0.81  T 1.0  <0.20  <0.20  0.3  0.3  <0.20  T	0.41  B 42 0.7 0.69 4.3 3.8 2.2	### ATE  6-Dec-23  ### BH/MW-8  ### 6-Dec-23  15-Mar-24  ### DUP  20-Jun-24  ### DUP  24-Sep-24  ### BH/MW-9  ### ATE  29-Nov-23
)   	VC <0.20 mbg VC <0	TCE <0.20 1 0.7 to 2 TCE <0.20 1 0.9 to 2 TCE <0.20 1 0.9 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva	t-1,2-DCE <0.50 Scree t-1,2-DCE <0.50 	<0.50 c-1,2-DCE <0.50 - - - - c-1,2-DCE <0.50	<0.20 1,1-DCE <0.20 1,1-DCE <0.20	<0.50  1,2-DCA <0.50	<0.20 1,1-DCA <0.20 1,1-DCA <0.20	2.3  CF <0.20	<200  F4  <200 <200 <200 <200 - <200 F4  <200	<200  F3 <200 <200 <200 <200 <200  - <200  - <200  F3 <200	<100  F2 <100 <100 <100 <100 <100 - <90  F2 <100	<25 F1 520 <25 <25 72 - <25 F1 <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20	0.81  T 1.0  <0.20 <0.20 0.3 0.3 <0.20  T  <0.20	0.41  B 42 0.7 0.69 4.3 3.8 2.2  B <0.17	BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 B-Dec-23 15-Mar-24 DUP 20-Jun-24 DUP 24-Sep-24 BH/MW-9 ATE 29-Nov-23 BH/MW-10
IS	VC <0.200  O mbg VC <0.200  O .200  VC <0.200  O .200  VC <0.200  O .200  O .200  O .200  O .200  O .200  O .200	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE	t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 	1,2-DCA <0.50 - - - - - - - - - - - - - - - - - - -	1,1-DCA <0.20 	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200 - <200 F4 <200	F3 <200 <200 <200 <200 <200 - <200 F3 <200 F3 <200 F3	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 F1 F1 F1	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20	T 1.0 <0.20 <0.20 0.3 0.3 <0.20    T <0.20	0.41  B 42 0.7 0.69 4.3 3.8 2.2  B <0.17	BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 B-Dec-23 B-Dec-23 B-Dec-23 B-DUP B-DUP B-DUP B-DUP B-Sep-24 BH/MW-9 BH/MW-9 BH/MW-10 BH/MW-10 BH/MW-10
IS	VC <0.200  O mbg VC <0.200  O .200  VC <0.200  O .200  VC <0.200  O .200  O .200  O .200  O .200  O .200  O .200	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interval PCE <0.20	t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 	1,2-DCA <0.50 	1,1-DCA <0.20 1,1-DCA <0.20 	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200 - <200 F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 - <200 - <200 F3 <200 F3 <200	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20	0.81  T 1.0  <0.20 <0.20  0.3  0.3  <0.20  T  <0.20  T  <0.20	0.41  B 42 0.7 0.69 4.3 3.8 2.2  B <0.17	BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 BH/MW-8 B-Dec-23 B-Dec-23 BH/MW-24 BH/MW-9 BH/MW-9 BH/MW-10 BH/MW-10 BH/MW-10 BH/MW-23
) )	VC <0.20 -0.20 -0.20 -0.20 -0.20 -0.20 -0.20 -0.20 -0.20 -0.20	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interval PCE <0.20	t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 	1,2-DCA <0.50 	1,1-DCA  <0.20  1,1-DCA  <0.20  1,1-DCA  <0.20  1,1-DCA  <0.20  <0.20  <0.20	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200 - <200 F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 - <200 - <200 F3 <200 F3 <200	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.20	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20	T 1.0 <0.20 <0.20 0.3 0.3 <0.20    T <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.2	0.41  B 42 0.7 0.69 4.3 3.8 2.2  B <0.17	BH/MW-8  6-Dec-23  BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  BH/MW-9  ATE  29-Nov-23  BH/MW-10  ATE  29-Nov-23  DUP
)     	VC <0.20 mbg VC <0.22 mbg VC <0.22 mbg VC <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20	TCE <0.20 10.7 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20	t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 	1,2-DCA <0.50 	1,1-DCA <0.20 	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200 - <200 F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 F3 <200 <200 <->	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.20 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20  E <0.20 <0.20 <0.20	T 1.0 <0.20 <0.20 0.3 0.3 <0.20    T <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.2	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17 B 0.54 0.51 < 0.20	### ATE  6-Dec-23  ### BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  ### BH/MW-9  ATE  29-Nov-23  ### BH/MW-10  ATE  29-Nov-23  DUP  20-Jun-24
)     	VC <0.20 mbg VC <0.22 mbg VC <0.22 mbg VC <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20	TCE <0.20 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 Scr	t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 	1,1-DCA   <0.20	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200 - <200 F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 F3 <200 <200 <->	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.20 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20  E <0.20 <0.20 <0.20	T 1.0 <0.20 <0.20 0.3 0.3 <0.20    T <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.2	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17 B 0.54 0.51 < 0.20	### ATE  6-Dec-23  BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  BH/MW-9  ATE  29-Nov-23  BH/MW-10  ATE  29-Nov-23  DUP  20-Jun-24  24-Sep-24
) ) ) )	VC	TCE <0.20 10.7 to 2 TCE <0.20 10.9 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20 Scr	\$cree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 - - - - - - - - - - - - - - - - - - -	1,1-DCA   <0.20	CF <0.20	<200  F4 <200 <200 <200 <200 - <200  F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 5200 <200 6200 6200 6200 73 6200	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 <25 72 - <25 F1 <25 F1 <25 - <25	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.40 <0.40 <0.40	<0.20  E 57 1.2 1.2 6.5 5.8 0.69  E <0.20 <0.20 <0.20 <0.20	T 1.0 <0.20 <0.20	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17   B 0.54 0.51   0.20   0.20	BH/MW-9  BH/MW-9  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  BH/MW-9  ATE  29-Nov-23  BH/MW-10  ATE  29-Nov-24  BH/MW-10  BH/MW-10  BH/MW-10  BH/MW-10  BH/MW-10
)))))))))	VC <0.20 mbg VC <0.20 <0.20 mbg VC <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.	TCE <0.20 10.7 to 2 TCE <0.20 10.9 to 2 TCE <0.20	PCE <0.20 In Interva PCE <0.20 In Interva PCE <0.20	\$cree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  C-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 - - - - - - - - - - - - - - - - - - -	d0.20	CF <0.20	<200  F4 <200 <200 <200 <200 - <200  F4 <200  F4 <200  F4 <700  F4 <700  F4 <700  F4 <700  F4	F3 <200 <200 <200 <200 <200 <200 5200 <200 6200 6200 6200 7 6200 7 630 640 640 640 640 640 640 640 64	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 72 - <25 F1 <25 F1 <25 F1 - F1	X 99 2.5 2.3 3.1 2.8 <0.40 X <0.20 <0.40 <0.40 X	Color   Colo	T 1.0 <0.20 <0.20	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17   B 0.54 0.51   <0.20   <0.20	BH/MW-9  ATE 6-Dec-23  BH/MW-8  ATE 6-Dec-23  15-Mar-24  DUP 20-Jun-24  DUP 24-Sep-24  BH/MW-9  ATE 29-Nov-23  BH/MW-10  ATE 29-Nov-24  BH/MW-12  ATE
ggs 00 00 00 00 00 00 00 00 00	VC	TCE <0.20 10.7 to 2 TCE <0.20 10.9 to 2 TCE <0.20	PCE	\$cree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  C-1,2-DCE <0.50  C-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 - - - - - - - - - - - - - - - - - - -	1,1-DCA <0.20	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200  - <200  F4 <200  F4 <200	F3 <200 <200 <200 <200 <200 <200 <200 -300 <200 <400 <400 <400 <400 <400 <400 <4	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 72 - <25 72 - <25 F1 <25 -  F1 <25 -  F1 <25 -  F1 <25	X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20  <0.40  X 0.96	Color   Colo	T 1.0 <0.20 <0.20 0.3	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17   B 0.54 0.51   <0.20   <0.20   B 0.91	BH/MW-9  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  BH/MW-9  ATE  29-Nov-23  BH/MW-10  ATE  29-Nov-24  BH/MW-10  ATE  29-Nov-24  ATE  4-Sep-24  BH/MW-10  ATE  6-Dec-23
)))))))))))))	VC	TCE <0.20 10.7 to 2 TCE <0.20	PCE	\$cree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  C-1,2-DCE <0.50  C-1,2-DCE <0.50  C-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 	1,1-DCA <0.20 	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200  F4 <200 <200  F4 <200	F3 <200 <200 <200 <200 <200 <200 5200 <200 6200 6200 6200 7	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 72 - <25 F1 <25 F1 <25 - F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1  F1  F1  F1  F1  F1  F1  F1  F1	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.40 <0.40  X 0.96 13	Color   Colo	T 1.0 <0.20 <0.20 0.3 0.3 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17	ATE 6-Dec-23 BH/MW-8 ATE 6-Dec-23 15-Mar-24 DUP 20-Jun-24 DUP 24-Sep-24 BH/MW-9 ATE 29-Nov-23 BH/MW-10 ATE 29-Nov-23 DUP 20-Jun-24 24-Sep-24 BH/MW-12 ATE 6-Dec-23 25-Mar-24
is is	VC <0.20 mbg VC <0.20	TCE  <0.20  1 0.7 to 2  TCE  <0.20   1 0.9 to 2  TCE  <0.20  1 1.0 to 2  TCE  <0.20  <0.20   1 0.9 to 2  TCE  <0.20  <0.20   TCE  <0.20  <0.20  REG	PCE	\$cree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  Scree t-1,2-DCE <0.50  C-1,2-DCE <0.50  C-1,2-DCE <0.50  C-1,2-DCE <0.50	<0.50  c-1,2-DCE <0.50	1,1-DCE <0.20 - - - - - - - - - - - - - - - - - - -	1,2-DCA <0.50 	1,1-DCA <0.20 	2.3  CF <0.20	<200  F4 <200 <200 <200 <200 - <200  F4 <200 <200  F4 <200	F3 <200 <200 <200 <200 <200 <200 5200 <200 6200 6200 6200 7 7 8 7 8 7 8 7 8 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	F2 <100 <100 <100 <100 <100 <100 <100 <10	<25 F1 520 <25 72 - <25 F1 <25 F1 <25 - F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1 <25 -  F1  F1  F1  F1  F1  F1  F1  F1  F1	0.28  X 99 2.5 2.3 3.1 2.8 <0.40  X <0.20 <0.40 <0.40  X 0.96 13	Color   Colo	T 1.0 <0.20 <0.20 0.3 0.3 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.20 <0.	B 42 0.7 0.69 4.3 3.8 2.2 B < 0.17	BH/MW-8  BH/MW-8  BH/MW-8  ATE  6-Dec-23  15-Mar-24  DUP  20-Jun-24  DUP  24-Sep-24  BH/MW-9  ATE  29-Nov-23  BH/MW-10  ATE  29-Nov-23  DUP  20-Jun-24  24-Sep-24  BH/MW-12  ATE  6-Dec-23  25-Mar-24

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 STANDARDS				
Benzene	В	0.5				
Toluene	T	320				
Ethylbenzene	E	54				
Total Xylenes	Х	72				
F1	F1 (C6-C10)	420				
F2	F2 (C10-C16)	150				
F3	F3 (C16-C34)	500				
F4	F4 (C34-C50)	500				
Chloroform	CF	2				
1,1-Dichloroethane	1,1-DCA	11				
1,2-Dichlororethane	1,2-DCA	0.5				
1, 1-Dichloroethy lene	1,1-DCE	0.5				
Cis-1,2-Dichloroethylene	c-1,2-DCE	1.6				
Trans-1,2,-Dichlorothy lene	t-1,2-DCE	1.6				
Tetrachloroethy lene	PCE	0.5				
Trichloroethylene	TCE	0.5				
Viny I Chloride	VC	0.5				





TABLE 3 (BEDROCK DEPTH > 2m) TABLE 7 (BEDROCK DEPTH < 2m)





EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

**₿BGO** SEPTEMBER 2024 CK / MM

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

OTT-23002538-B0 GROUNDWATER ANALYTICAL RESULTS - PHC & VOC WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

1:1,000 FIG 14 BH-1

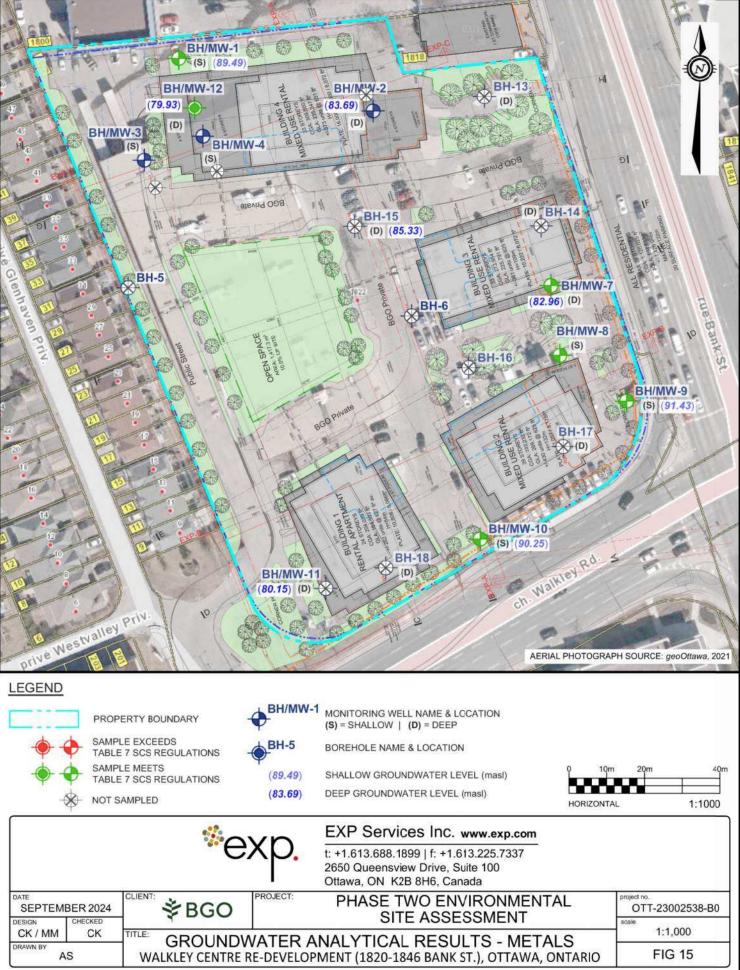
DATE

me: E:\OTT\OTT-23002538-B0\60 Execution\65 Drawings\23002538 Saved: Oct 9, 2024 9:36 AM Last Plotted: Oct 9, 2024 3:55 PM

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 STANDARDS			
Antimony	Sb	16000			
Arsenic	As	1500			
Barium	Ba	23000			
Boron	В	36000			
Cadmium	Cd	2.1			
Chromium	Cr	640			
Cobalt	Co	52			
Copper	Cu	69			
Lead	Pb	20			
Moly bdenum	Mo	70			
Nickel	Ni	390			
Selenium	Se	50			
Silver	Ag	1.2			
Sodium	Na	1800000			
Thallium	п	400			
Uranium	U	330			
Vanadium	V	200			
Zinc	Zn	890			

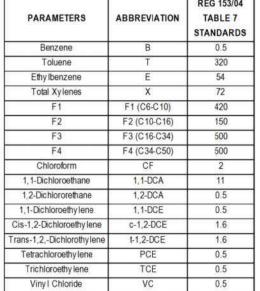
Screen Interval 1.5 to 4.6 mbgs

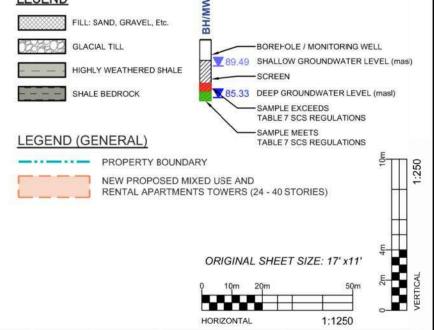
Ag













EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

**∲BGO** SEPTEMBER 2024 CK / MM DRAWN BY

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

OTT-23002538-B0 H = 1:1,250 | V = 1:250

GW CROSS SECTIONS A-A', B-B' & C-C' - PHC & VOC WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

FIG 16

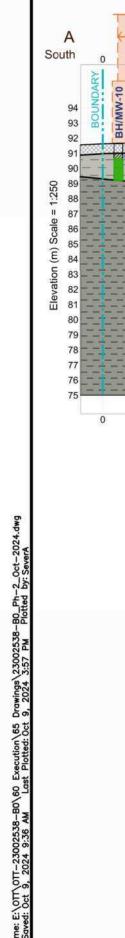
C'

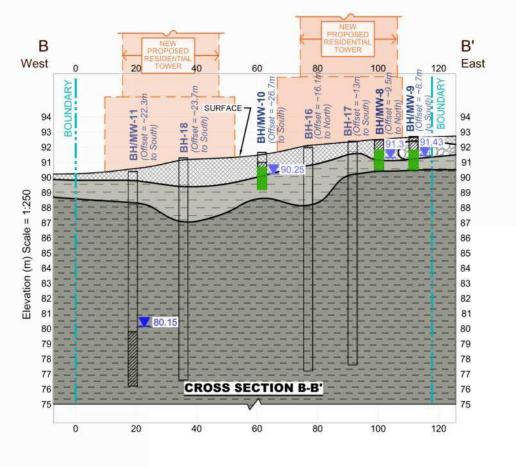
76

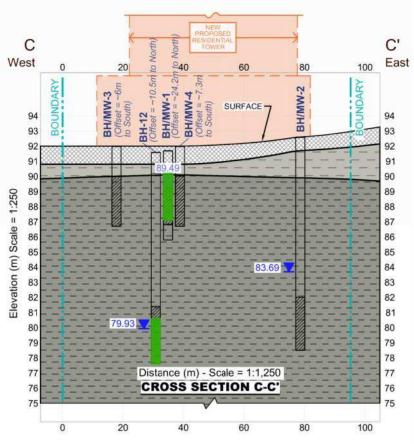
100

100

East







BH-1														Scre	en Interva	al 1.5 to 4	4.6 mbgs
DATE	Ace	Acl	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
30-Nov-23	<0.050	<0.050	<0.050	<0.050	<0.0090	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.071	<0.050	<0.030	<0.050
BH-7	Ť											h		Screen	Interval	10.3 to 13	3.7 mbgs
DATE	Ace	AcI	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
6-Dec-23	<0.050	<0.050	<0.050	<0.050	0.026	<0.050	<0.050	<0.050	<0.050	<0.050	0.05	<0.050	<0.050	<0.071	<0.050	0.053	<0.050
BH-8	T T			10.		5 N		- 1						Scre	en Interva	al 0.7 to 2	2.0 mbgs
DATE	Ace	AcI	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
6-Dec-23	<0.050	<0.050	<0.050	<0.050	<0.0090	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.4	4.4	0.045	<0.050
BH-9	1			ð.	70									Scre	en Interva	al 0.9 to 2	2.2 mbgs
DATE	Ace	AcI	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
29-Nov-23	<0.050	<0.050	<0.050	<0.050	<0.0090	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.071	<0.050	<0.030	<0.050
BH-10	1			22.		S. S	8 2	-						Scre	en Interva	al 1.0 to 2	2.5 m bg s
DATE	Ace	AcI	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	С	DA	FI	F	I(123)P	T-MN	N	Р	Py
29-Nov-23	<0.050	<0.050	< 0.050	< 0.050	< 0.0090	<0.050	<0.050	< 0.050	< 0.050	<0.050	<0.050	< 0.050	< 0.050	< 0.071	<0.050	<0.030	<0.050
DUP	<0.050	<0.050	<0.050	<0.050	<0.0090	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.071	<0.050	<0.030	<0.050
BH-12	7													Screen	Interval	11.0 to 14	4.0 mbgs
DATE	Ace	AcI	An	B(a)A	B(a)P	B(b/j)F	B(ghi)P	B(k)F	C	DA	FI	F	I(123)P	T-MN	N	Р	Py
6-Dec-23	< 0.050	<0.050	<0.050	< 0.050	< 0.0090	< 0.050	< 0.050	<0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.071	< 0.050	0.11	< 0.050

A'

88 87

83

81

80

79

78

77

120

83.69

120

140

100

BH/MW-7 (Offset = ~38, to East)

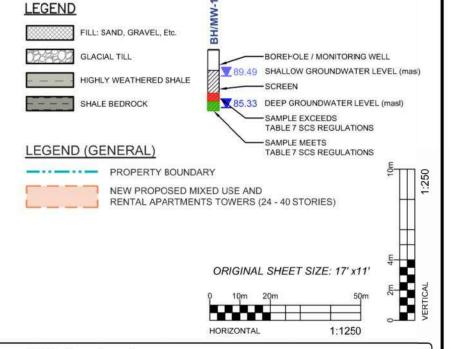
Distance (m) - Scale = 1:1,250

**CROSS SECTION A-A'** 

SURFACE

North

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 STANDARDS
Acenaphthene	Ace	17
Acenaphthy lene	Acl	1
Anthracene	An	1
Benzo(a)anthracene	B(a)A	1.8
Benzo(a)py rene	B(a)P	0.81
Benzo(b/j)fluoranthene	B(b/j)F	0.75
Benzo(g,h,i)perylene	B(ghi)P	0.2
Benzo(k)fluoranthene	B(k)F	0.4
Chry sene	С	0.7
Dibenzo(a,h)anthracene	DA	0.4
Fluoranthene	FI	44
Fluorene	F	290
Indeno(1,2,3-cd)py rene	I(123)P	0.2
Methy Inaphthalene, 2-(1-)	T-MN	1500
Naphthalene	N	7
Phenanthrene	Р	380
Py rene	Py	5.7





# EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

SEPTEMBER 2024

DESIGN CHECKED

CK / MM CK

TITLE:

CW CF

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

OTT-23002538-B0

scale
H = 1:1,250 | V = 1:250

FIG 17

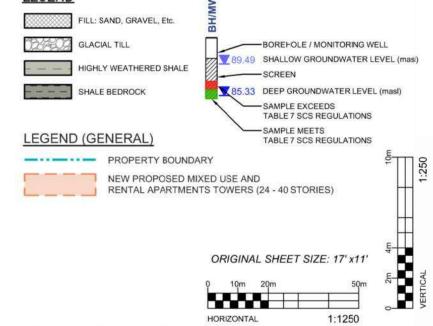
GW CROSS SECTIONS A-A', B-B' & C-C' - PAH
WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

PROJECT:



DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Na	n	U	V	Zn
30-Nov -23	1.4	1.1	1800	<0.40	520	<0.090	<5.0	2.5	2.5	<0.50	11	6.3	<2.0	<0.090	820000	0.059	2.9	<0.50	<5.0
BH-7	T															Sci	reen Interv	val 10.3 to	13.7 mbg
DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Na	П	U	V	Zn
6-Dec-23	1.7	1.8	1800	<0.40	380	<0.090	<5.0	<0.50	0.99	<0.50	14	1.7	<2.0	<0.090	2300000	<0.050	2.4	0.59	<5.0
BH-8	T																Screen Int	erval 0.7 to	2.0 mb
DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Na	П	U	V	Zn
6-Dec-23	<0.50	<1.0	95	<0.40	76	<0.090	<5.0	0.53	1.1	<0.50	10	1.4	<2.0	<0.090	1300000	<0.050	1.7	<0.50	<5.0
BH-9	T			Th #E		= 11								-			Screen Int	erval 0.9 to	2.2 mb
DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Na	П	U	V	Zn
29-Nov -23	0.55	<1.0	89	<0.40	50	0.12	<5.0	2.4	2.3	<0.50	1.6	6.2	<2.0	<0.090	1100000	<0.050	1.8	0.53	<5.0
BH-10	1															•	Screen Int	erval 1.0 to	2.5 mbg
DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Мо	Ni	Se	Ag	Na	П	U	V	Zn
29-Nov -23	0.56	<1.0	150	< 0.40	37	0.28	<5.0	5.9	4.5	<0.50	9.7	10	<2.0	0.093	890000	0.078	3.4	0.86	<5.0
DUP	<0.50	<1.0	140	<0.40	36	0.26	<5.0	5.5	3.6	<0.50	9.0	9.8	<2.0	<0.090	880000	0.07	3.3	0.58	<5.0
BH-12	1															Sc	reen Interv	/al 11.0 to	14.0 mb
DATE	Sb	As	Ba	Be	В	Cd	Cr	Co	Cu	Pb	Mo	Ni	Se	Ag	Na	n	U	V	Zn
			220	I I	180	< 0.090	<5.0	0.78	3.9	0.55	36	3.2	<2.0	<0.090	530000	< 0.050	1.9	0.88	15

PARAMETERS	ABBREVIATION	REG 153/04 TABLE 7 STANDARDS
Antimony	Sb	16000
Arsenic	As	1500
Barium	Ba	23000
Boron	В	36000
Cadmium	Cd	2.1
Chromium	Cr	640
Cobalt	Co	52
Copper	Cu	69
Lead	Pb	20
Moly bdenum	Mo	70
Nickel	Ni	390
Selenium	Se	50
Silver	Ag	1.2
Sodium	Na	1800000
Thallium	TI	400
Uranium	U	330
Vanadium	V	200
Zinc	Zn	890





# EXP Services Inc. www.exp.com

t: +1.613.688.1899 | f: +1.613.225.7337 2650 Queensview Drive, Suite 100 Ottawa, ON K2B 8H6, Canada

SEPTEMBER 2024

DESIGN CHECKED

CK / MM CK

TITLE: CVM CDC

PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

OTT-23002538-B0
scale
H = 1:1,250 | V = 1:250

**FIG 18** 

GW CROSS SECTIONS A-A', B-B' & C-C' - METALS
WALKLEY CENTRE RE-DEVELOPMENT (1820-1846 BANK ST.), OTTAWA, ONTARIO

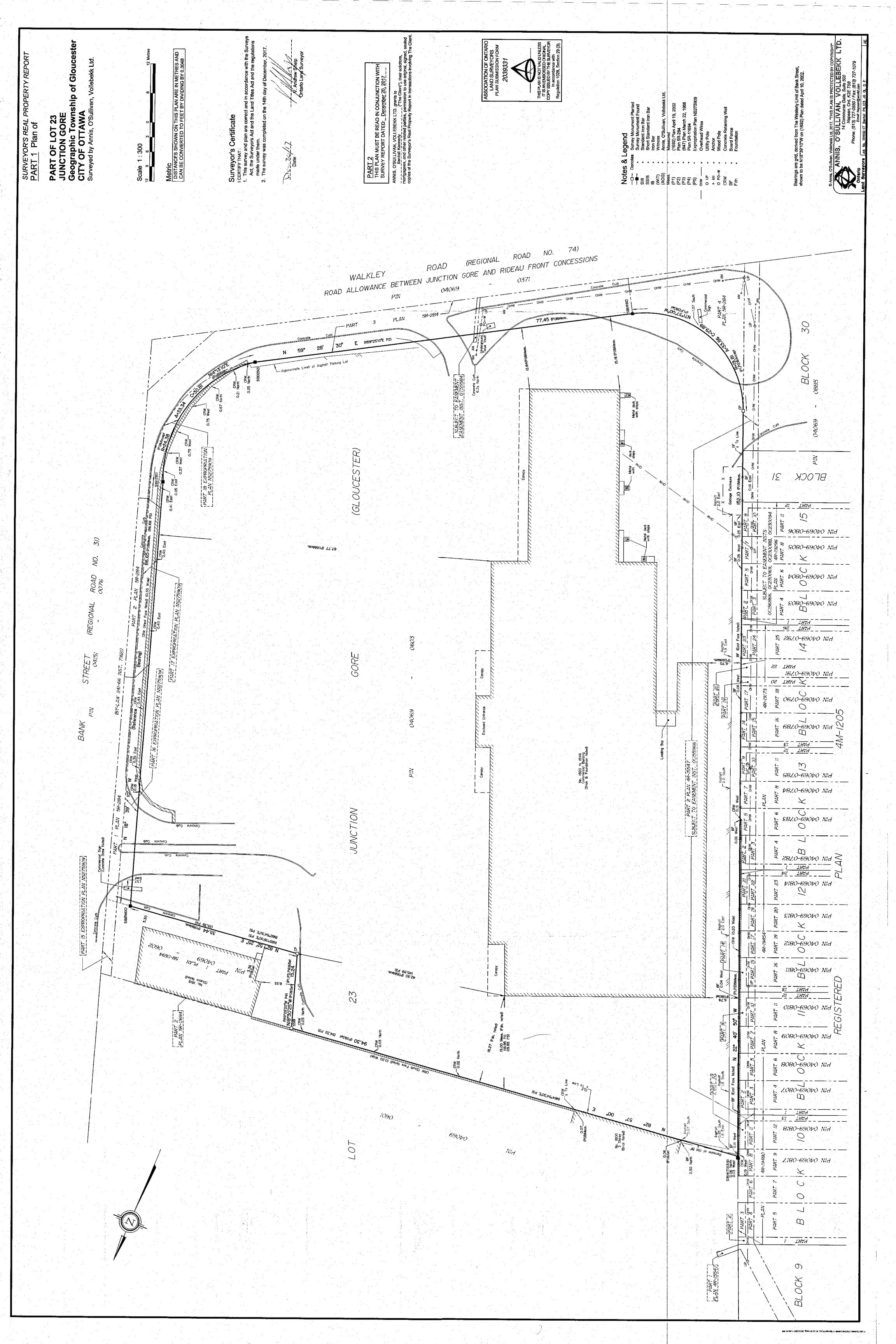
Filename: E:\OTT\OTT-23002538-BO\60 Execution\65 Drawings\23002538-B0\_Ph-2\_Oct-2024.dwg Last Saved: Oct 9, 2024 9:36 AM Last Plotted: Oct 9, 2024 3:57 PM Plotted by: SeverA

EXP Services Inc.

Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix B: Survey Plan** 





**EXP Services Inc.** 

Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix C: Sampling and Analysis Plan** 



# OTT-23002538-B0 Walkley Centre Development, 1820-1846 Bank Street, Ottawa, ON

## **Objectives:**

The objective of this component of the project is to support future re-development of the site by completing a combined Geotechnical and Environmental investigation. A Record of Site Condition will be required for the site.

### **Drilling:**

A total of 18 BH will be drilled for geotechnical/environmental purposes, and MW will be installed in 10 of them. Based on the results of the Phase One ESA, a summary of the proposed work plan is as follows:

Area of Potential Environmental Concern (APEC)	Contaminants of Potential Concern	Media Potentially Impacted (Groundwater, Soil and/or Sediment)	Addressed by BH/MW/sample #
#1. Former on-site dry-cleaner	VOC	Soil and groundwater	BH/MW-3, BH/MW-4, BH/MW-12
#2. Former on-site gas station	PHC, VOC, metals	Soil and groundwater	BH/MW-7, BH/MW-8
#3. Former on-site rail siding	PAH, metals	Soil	BH/MW-3, BH-6
#4. Fill material	PHC, PAH, metals	Soil	BH/MW-1, BH/MW-2, BH/MW-3, BH/MW-4, BH-6, BH/MW-7, BH/MW-8, BH/MW-9, BH/MW- 10, BH/MW-11
#5. Former dry cleaner at 1800 Bank Street	voc	Soil and Groundwater	BH/MW-1
#6. Former gas station at 1841 Bank Street	PHC, VOC	Soil and Groundwater	BH/MW-8, BH/MW-9
#7. Repair garage at 1841 Bank Street	PHC, VOC, metals	Soil and groundwater	BH/MW-8, BH/MW-9
#8. Gas station at 1847 Bank Street	PHC, VOC	Soil and groundwater	BH/MW-8, BH/MW-9
#9. Former car dealership at 1850 Bank Street	PHC, VOC, metals	Soil and groundwater	BH/MW-10, BH/MW-11
#10. Former USTs associated with car dealership at 1850 Bank Street	BTEX, PHC	Soil and groundwater	BH/MW-10, BH/MW-11
#11. Former rail line to the west of the site	PAH, metals	Soil	BH/MW-3, BH-5, BH/MW-11

- All monitoring wells to be screened across water table.
- Make sure that no screens straddle bedrock-soil interface. In other words, MW must be installed completely within bedrock or completely within overburden (most, if not all, will be in bedrock).
- As drilling progresses, log each sample, describing soil type, colour, staining, odour, petroleum vapour.

### **Soil Sampling:**

- Two soil samples shall be submitted from BH/MW-1 to BH/MW-11 for analysis of PHC, VOC, PAH and metals and inorganics (sodium adsorption ratio, electrical conductivity, pH), to address preliminary excess soil requirements as wells as the APECs identified at the site.
- Three duplicate samples shall also be submitted for analysis.
- Samples should be submitted to Bureau Veritas.
- Results to be sent to chris.kimmerly@exp.com and leah.wells@exp.com

### **Low Flow Groundwater Sampling**

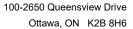
- Monitor all 10 monitoring wells and record petroleum vapours, depth to water, and depth to LNAPL, if any.
- Groundwater samples shall be submitted from select monitoring wells for the parameters summarized in the table.
- One duplicate sample, a trip blank, and a field blank should be submitted for analysis.
- Samples should be submitted to Bureau Veritas.
- Results to be sent to chris.kimmerly@exp.com and leah.wells@exp.com
- Prior to sampling, ensure the following field parameters are stable (per the field measurement table): pH, conductivity, turbidity, DO, temperature and ORP
- EXP will survey ground elevations and top of pipe elevations, as well as UTM coordinates

EXP Services Inc.

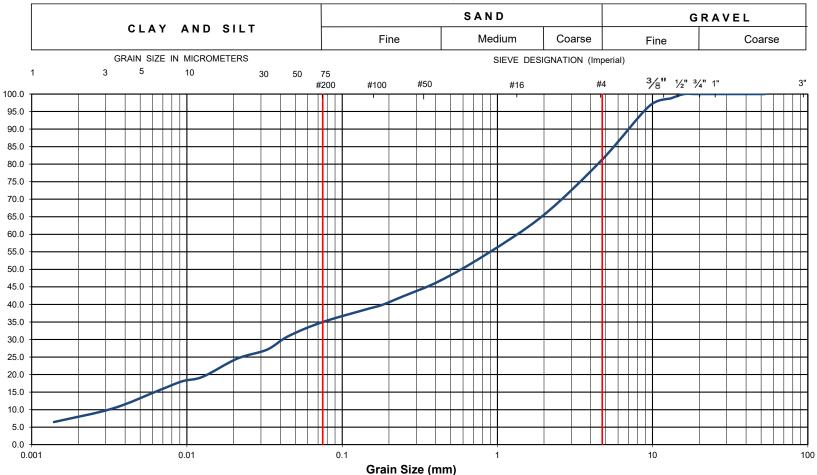
Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix D: Grain Size Analyses** 





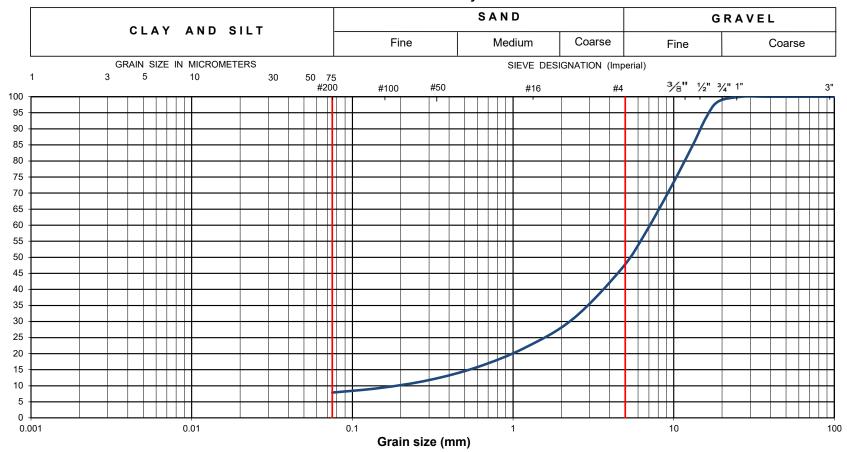




EXP Project N	o.: OTT-23002538-A0	Project Name :		Geotechnical Inv	vestigati	on - Walkley	Cen	tre Re-d	evelopment	
Client :	Sun Life Assurance Company of Canada	Project Location	:	1840-1846 Walki	ey Road	, Ottawa				
Date Sampled	October 26, 2023	Borehole No:		BH1	Sam	ple No.:	S	S3	Depth (m) :	1.5-2.1
Sample Descri	ption :	% Silt and Clay	35	% Sand	46	% Gravel		19	Figure :	D-1
Sample Descri	ption :	Silty Sand	l and G	ravel (SM)					rigule .	D-1

# Grain-Size Distribution Curve Method of Test For Sieve Analysis of Aggregate ASTM C-136

100-2650 Queensview Drive Ottawa, ON K2B 8H6



EXP Project No.:	OTT-23002538-A0	Project Name :		Geotechnical In	vestigat	ion - Walkey Cei	ntre Red	evelopment	
Client :	Sun Life Assurance Company	Project Location	ı :	1822-1846 Bank	Street				
Date Sampled :	October 31, 2023	Borehole No:		BH17	Sample	: G	S1	Depth (m) :	0.1-0.2
Sample Composition :		Gravel (%)	54	Sand (%)	38	Silt & Clay (%)	8	Figure .	D-2
Sample Description :	FILL: Poorly Graded Gravel with Silt and Sand (GP-GM)				rigure .	D-2			

# Grain-Size Distribution Curve Method of Test For Sieve Analysis of Aggregate ASTM C-136

100-2650 Queensview Drive Ottawa, ON K2B 8H6

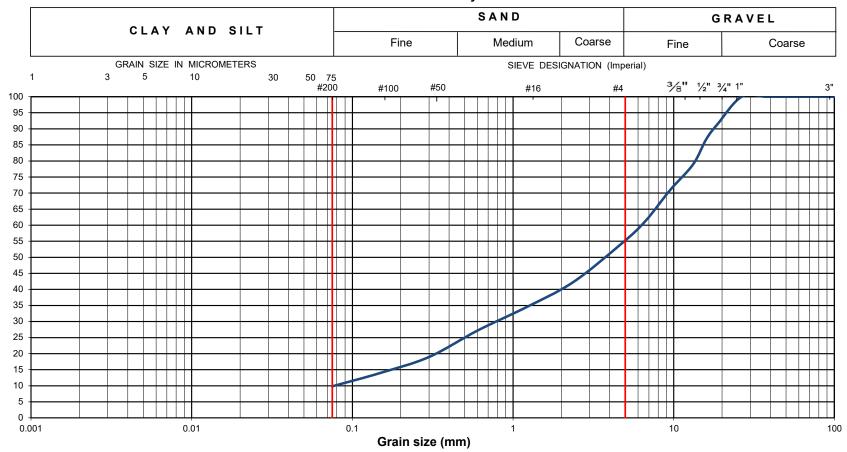


EXP Project No.:	OTT-23002538-A0	Project Name :		Geotechnical In	vestigati	ion - Walkey Ce	ntre Red	evelopment	
Client :	Sun Life Assurance Company	Project Location	า :	1822-1846 Bank	Street				
Date Sampled :	November 2, 2023	Borehole No:		BH18	Sample:	: G	iS1	Depth (m) :	0.1-0.2
Sample Composition :		Gravel (%)	27	Sand (%)	56	Silt & Clay (%)		Eiguro I	D-3
Sample Description :	FILL: We	ell Graded Sand	with S	Silt and Gravel (	(GW-GN	1)		Figure :	D-3

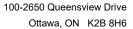


# Grain-Size Distribution Curve Method of Test For Sieve Analysis of Aggregate ASTM C-136

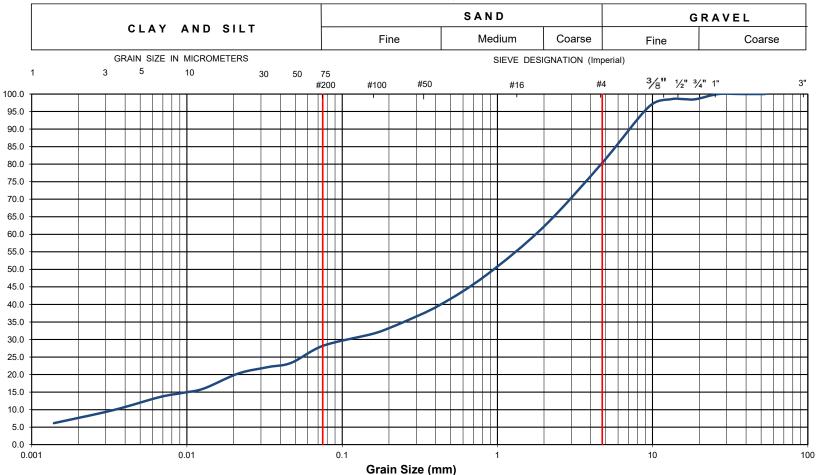
100-2650 Queensview Drive Ottawa, ON K2B 8H6



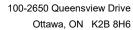
EXP Project No.:	OTT-23002538-A0	Project Name :		Geotechnical In	vestigat	ion - Walkey Cer	tre Red	evelopment	
Client :	Sun Life Assurance Company	Project Location	ı :	1822-1846 Bank	Street				
Date Sampled :	November 1, 2023	Borehole No:		BH12	Sample	: G	S1	Depth (m) :	0.1-0.2
Sample Composition :		Gravel (%)	46	Sand (%)	44	Silt & Clay (%)	10	Eiguro I	D 4
Sample Description :	FILL: W	/ell Graded Gra	vel wit	h Silt & Sand (0	GW-GM)			Figure :	D-4



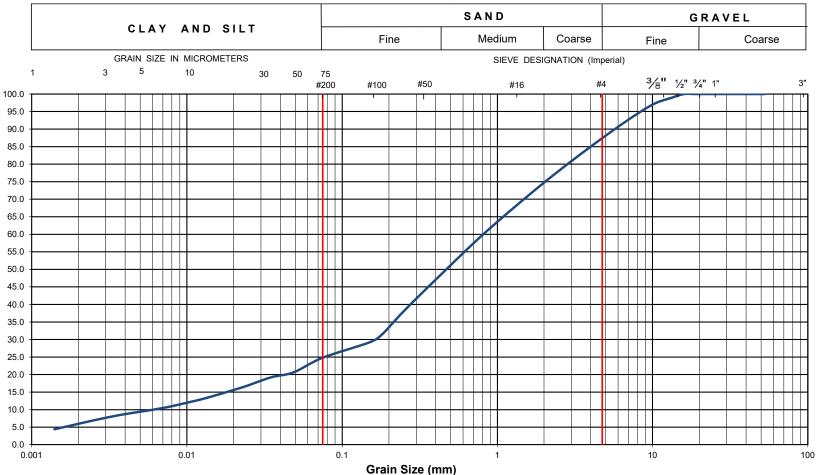




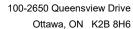
EXP Project N	o.: OTT-23002538-A0	Project Name :		Geotechnical Inv	estigati/	on - Walkley (	Cen	tre Re-d	evelopment	
Client :	Sun Life Assurance Company of Canada	Project Location	:	1840-1846 Walki	ey Road	, Ottawa				
Date Sampled	: October 26, 2023	Borehole No:		BH10	Sam	ple No.:	S	<b>S</b> 3	Depth (m) :	1.5-2.1
Sample Descri	ption :	% Silt and Clay	28	% Sand	52	% Gravel		20	Figure :	
Sample Descri	ption :	Silty Sand	l and Gr	ravel (SM)					rigule .	D-5



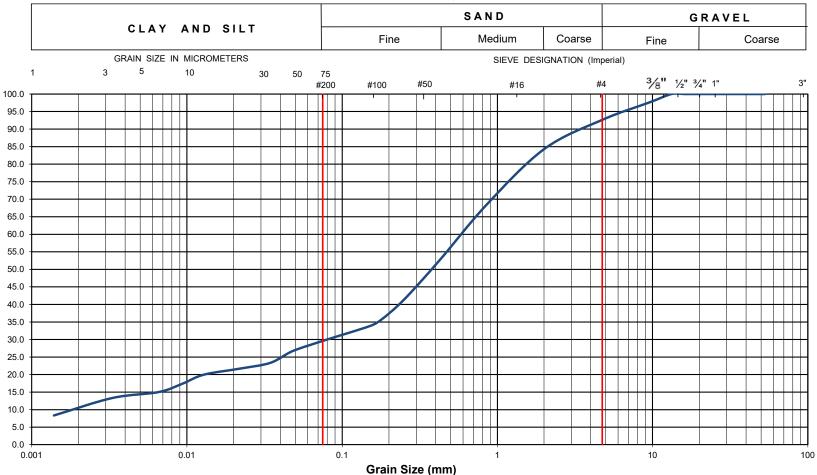




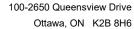
EXP Project N	o.: OTT-23002538-A0	Project Name :		Geotechnical Inv	estigati/	on - Walkley (	Cen	tre Re-d	evelopment	
Client :	Sun Life Assurance Company of Canada	Project Location	:	1840-1846 Walki	ey Road	, Ottawa				
Date Sampled	: November 1, 2023	Borehole No:		BH12	Sam	ple No.:	S	S2	Depth (m) :	0.8-1.4
Sample Descri	ption :	% Silt and Clay	25	% Sand	62	% Gravel		13	Figure :	D-6
Sample Descri	ption :	Silty	/ Sand (	SM)					rigule .	D-0



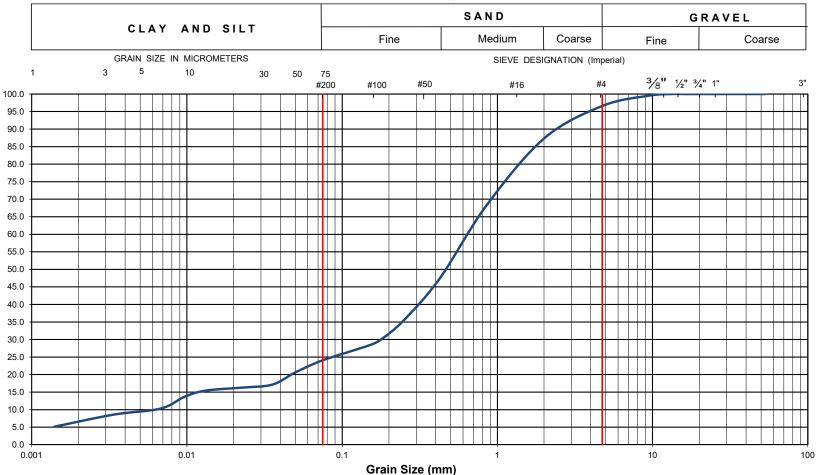




EXP Project N	lo.: OTT-23002538-A0	Project Name :		Geotechnical Inv	estigati/	on - Walkley (	Cen	tre Re-d	evelopment	
Client :	Sun Life Assurance Company of Canada	Project Location	:	1840-1846 Walki	ey Road	, Ottawa				
Date Sampled	: November 3, 2023	Borehole No:		BH13	Sam	ple No.:	S	S2	Depth (m) :	0.8-1.4
Sample Descri	ption :	% Silt and Clay	30	% Sand	63	% Gravel		7	Figure :	D.7
Sample Descri	ption :	Silty	/ Sand (	SM)					rigule .	D-7







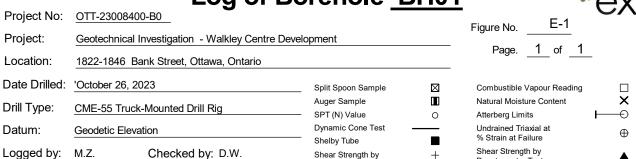
EXP Project N	o.: OTT-23002538-A0	Project Name :		Geotechnical Inv	estigati/	on - Walkley (	Cen	tre Re-d	evelopment	
Client :	Sun Life Assurance Company of Canada	Project Location	:	1840-1846 Walki	ey Road	, Ottawa				
Date Sampled	: November 2, 2023	Borehole No:		BH18	Sam	ple No.:	SS	32	Depth (m) :	0.8-1.4
Sample Descri	ption :	% Silt and Clay	24	% Sand	73	% Gravel		3	Figure :	D-8
Sample Descri	ption :	Silty	/ Sand (	SM)					rigule .	D-6

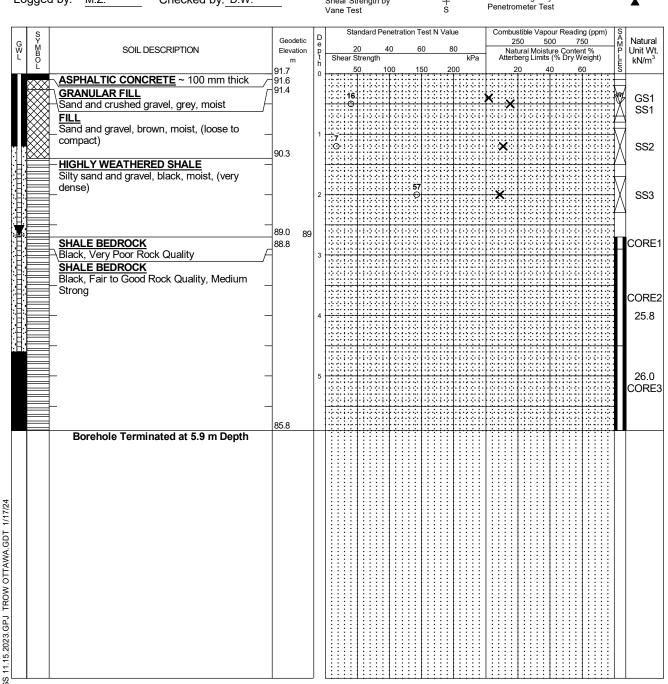
EXP Services Inc.

Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix E: Borehole Logs** 







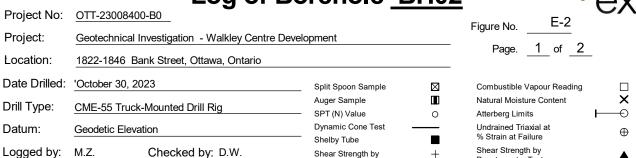
#### NOTES:

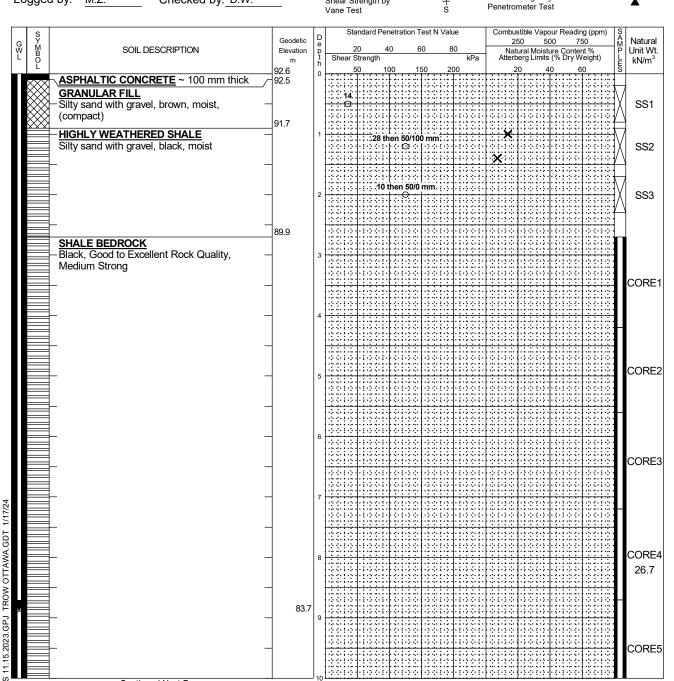
LOG OF

- Borehole data requires interpretation by EXP before use by others
- 2.50 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WA	WATER LEVEL RECORDS  Water Hole Open							
Date	Date Water Level (m)							
11/23/2023	1.7							
12/06/2023	2.7							

CORE DRILLING RECORD								
Run No.	Depth (m)	% Rec.	RQD %					
1	2.7 - 2.9	60	0					
2	2.9 - 4.5	97	69					
3	4.5 - 5.9	100	82					





Continued Next Page
DTES:

- Borehole data requires interpretation by EXP before use by others
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

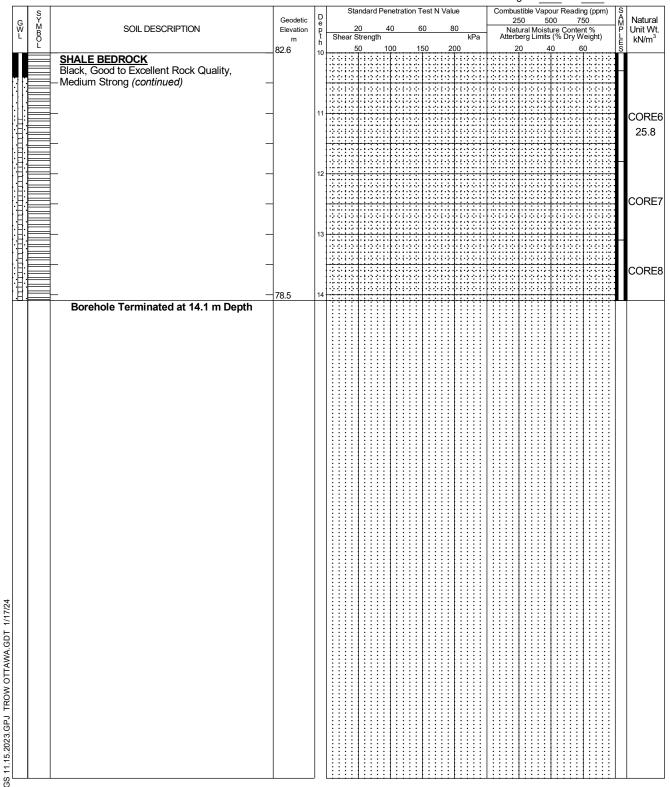
WA	TER LEVEL RECO	RDS					
Date	Date Water Level (m)						
11/23/2023	10.9						
12/06/2023	8.9						

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	2.7 - 4.2	84	80
2	4.2 - 5.6	100	96
3	5.6 - 7.2	100	81
4	7.2 - 8.7	100	97
5	8.7 - 10.3	100	100
6	10.3 - 11.8	98	77
7	11.8 - 13.1	100	100
8	13.1 - 14.1	100	85

Project No: OTT-23008400-B0

Figure No.

Project: Geotechnical Investigation - Walkley Centre Development 2 of 2Page.



LOG OF BOREHOLE

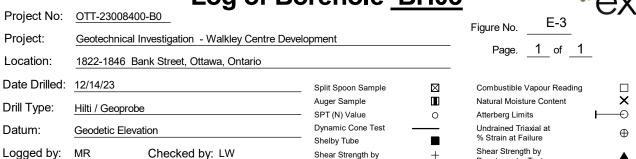
- 1. Borehole data requires interpretation by EXP before
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

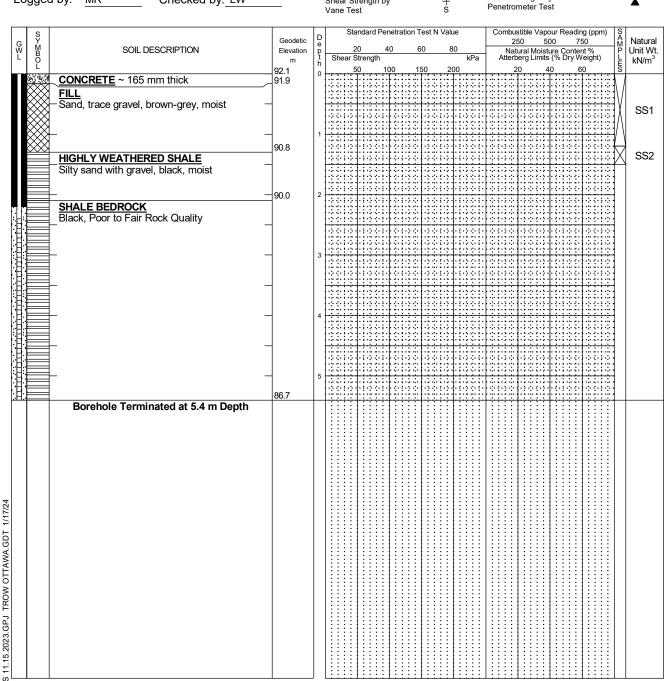
WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
11/23/2023	10.9		
12/06/2023	8.9		

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	2.7 - 4.2	84	80
2	4.2 - 5.6	100	96
3	5.6 - 7.2	100	81
4	7.2 - 8.7	100	97
5	8.7 - 10.3	100	100
6	10.3 - 11.8	98	77
7	11.8 - 13.1	100	100

85

13.1 - 14.1





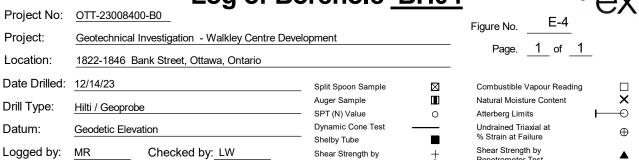
#### NOTES:

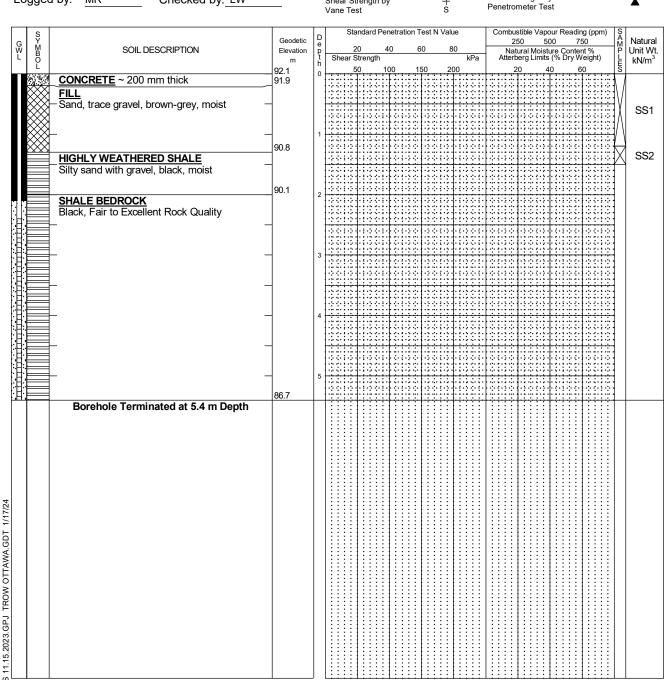
-0G OF

- Borehole data requires interpretation by EXP before use by others
- A 38mm PVC monitoring well was installed upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
12/21/2023	2.3		

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.5 - 2.5	40	0
2	2.5 - 3.5	100	43
3	3.5 - 4.5	100	50
4	4.5 - 5.4	100	50





#### NOTES:

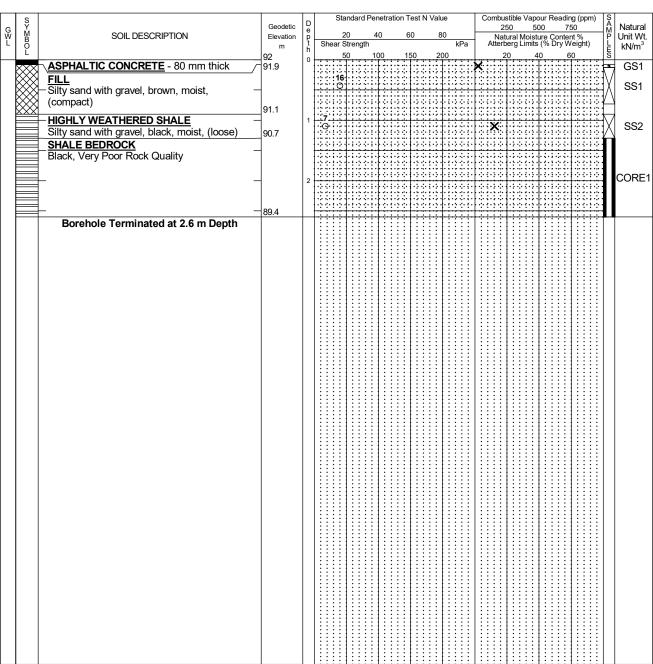
-0G OF

- Borehole data requires interpretation by EXP before use by others
- A 38mm PVC monitoring well was installed upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
12/21/2023	1.8		

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.5 - 2.4	42	0
2	2.4 - 3.4	43	65
3	3.4 - 4.5	100	95
4	4.5 - 5.4	100	100

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 1 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'October 27, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



#### NOTES:

11.15.2023.GPJ TROW OTTAWA.GDT 1/17/24

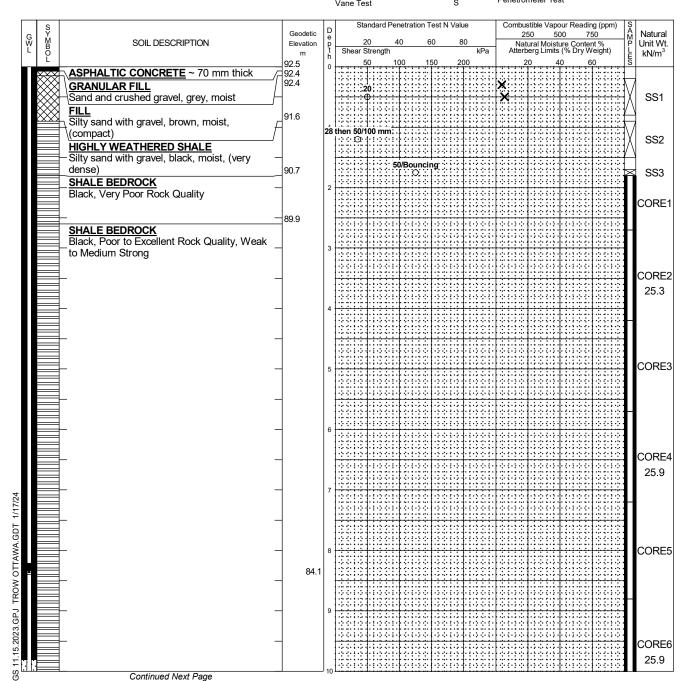
OG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2. Borehole was backfilled with soil cuttings upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- $5. Log\ to\ be\ read\ with\ EXP\ Report\ OTT-23008400-B0$

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.3 - 2.6	100	0

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'October 27, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



NOTES:

1. Borehole data requires interpretation by EXP before

Borehole data requires interpretation by EXP before use by others

2.31 mm monitoring well installed upon completion

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
11/23/2023	5.6		
12/06/2023	5.6		

CORE DRILLING RECORD			
Run	Depth	% Rec.	RQD %
No.	(m)		
1	1.8 - 2.7	76	47
2	2.7 - 4.2	100	78
3	4.2 - 5.7	100	100
4	5.7 - 7.2	100	58
5	7.2 - 8.8	100	80
6	8.8 - 10.3	100	85
7	10.3 - 11.8	100	71

8 11.8 - 13.4 100 71

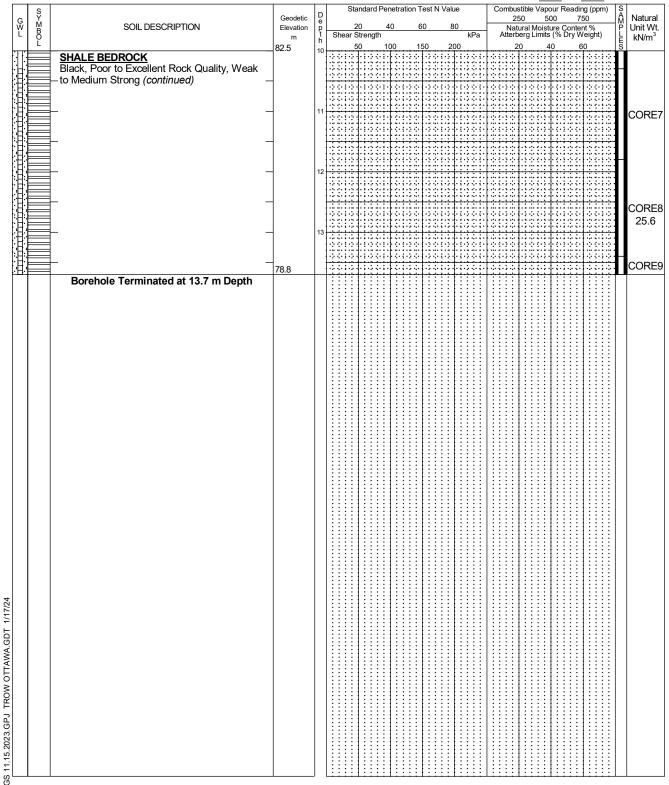
Project No: OTT-23008400-B0

Figure No.

\_\_\_\_\_

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



#### NOTES:

LOG OF BOREHOLE

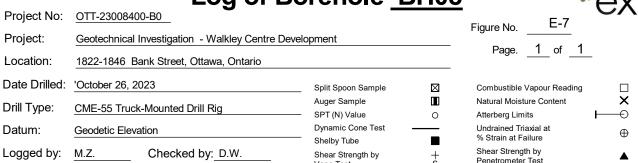
- Borehole data requires interpretation by EXP before use by others
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23008400-B0

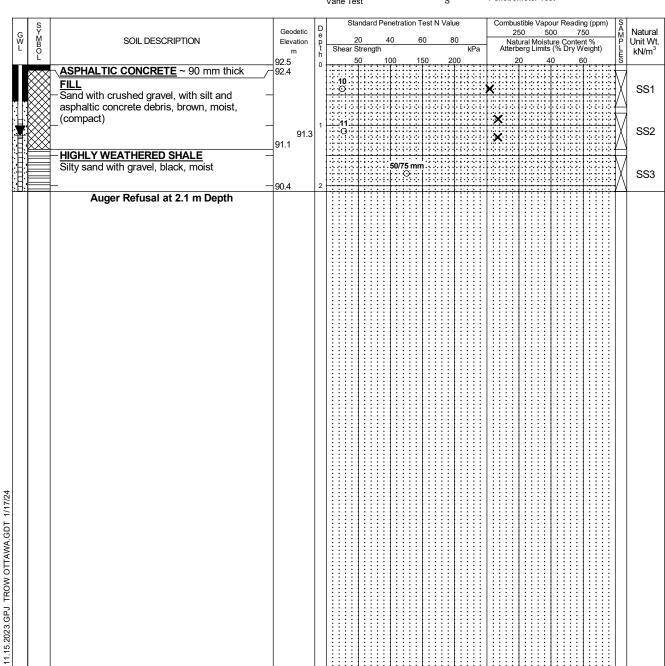
WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
11/23/2023	5.6		
12/06/2023	5.6		

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.8 - 2.7	76	47
2	2.7 - 4.2	100	78
3	4.2 - 5.7	100	100
4	5.7 - 7.2	100	58
5	7.2 - 8.8	100	80
6	8.8 - 10.3	100	85
7	10.3 - 11.8	100	71

71

11.8 - 13.4





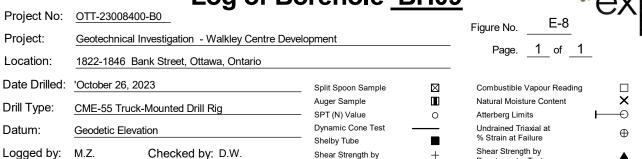
#### NOTES:

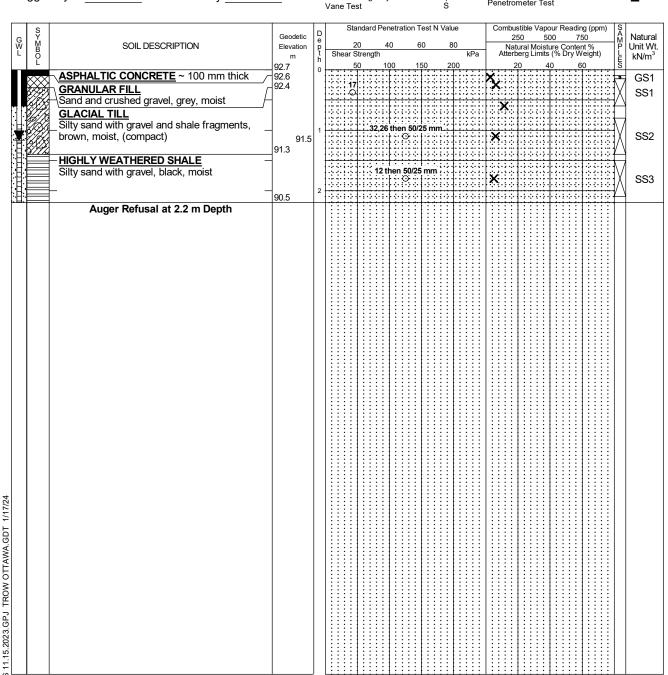
LOG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2.50 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
11/23/2023	1.2	
12/06/2023	1.2	

	CORE DRILLING RECORD		
Run No.	Depth (m)	% Rec.	RQD %
	()		





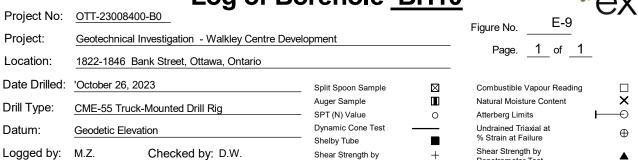
#### NOTES:

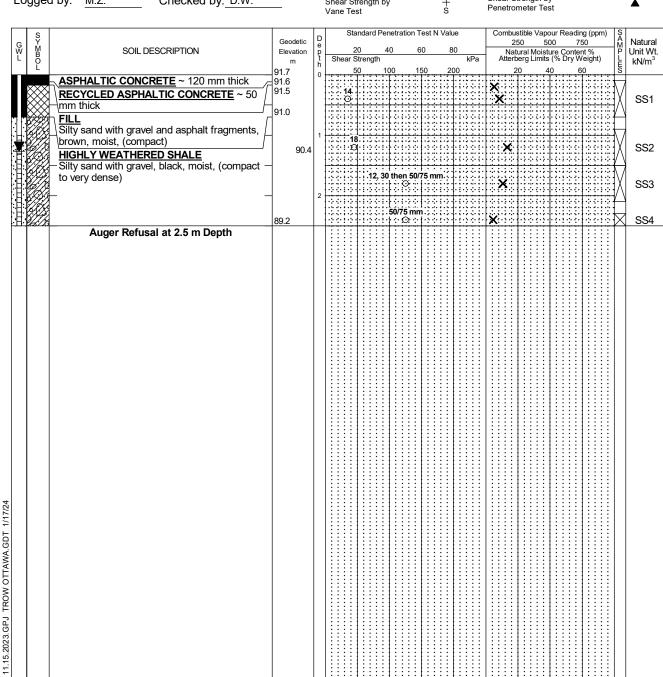
LOG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2.50 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
11/23/2023	1.3	
12/06/2023	1.2	

	CORE DRILLING RECORD		
Run No.	Depth (m)	% Rec.	RQD %





#### NOTES:

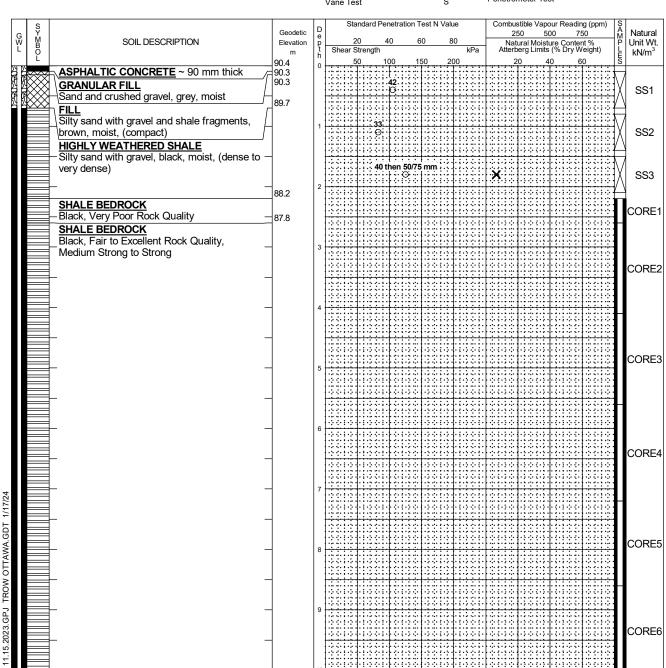
LOG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2.50 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
11/23/2023	1.4	
12/06/2023	1.4	

	CORE DRILLING RECORD		
Run No.	Depth (m)	% Rec.	RQD %
	,		

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development Page. 1 of 2 Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'October 30, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



Continued Next Page

- 1. Borehole data requires interpretation by EXP before
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			RDS
	Date	Water Level (m)	Hole Open To (m)
	11/23/2023	10.7	
	12/06/2023	10.7	

	CORE DRILLING RECORD			
Run	Depth	% Rec.	RQD %	
No.	(m)			
1	2.2 - 2.6	89	0	
2	2.6 - 4.1	100	68	
3	4.1 - 5.6	100	92	
4	5.6 - 7.2	100	93	
5	7.2 - 8.6	100	89	
6	8.6 - 10.1	100	85	
7	10.1 - 11.7	100	97	

11.7 - 13.2 100 92

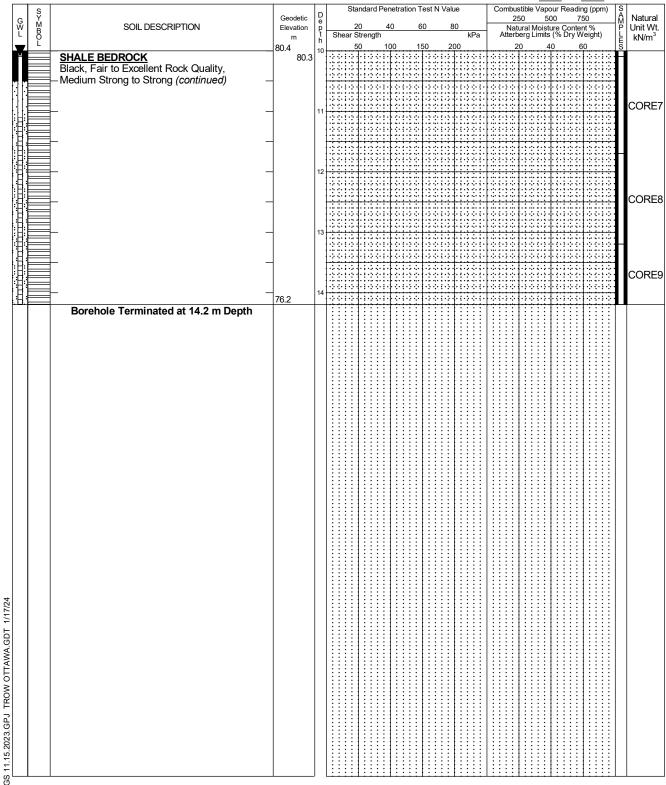
Project No: <u>OTT-23008400-B0</u>

Figure No.

E-10

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



#### NOTES:

LOG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
11/23/2023	10.7	
12/06/2023	10.7	

	CORE DRILLING RECORD			
Run	Depth	% Rec.	RQD %	
No.	(m)			
1	2.2 - 2.6	89	0	
2	2.6 - 4.1	100	68	
3	4.1 - 5.6	100	92	
4	5.6 - 7.2	100	93	
5	7.2 - 8.6	100	89	
6	8.6 - 10.1	100	85	
7	10.1 - 11.7	100	97	

7 10.1 - 11.7 100 97 8 11.7 - 13.2 100 92

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development Page. 1 of 2 Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'November 1, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Undrained Triaxial at Dynamic Cone Test Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test Standard Penetration Test N Value Combustible Vapour Reading (ppm) SYMBO-250 500 750

Natural Moisture Content %
Atterberg Limits (% Dry Weight) Geodetic Natural G W L SOIL DESCRIPTION Elevation Unit Wt kN/m<sup>3</sup> m 91.6 ASPHALTIC CONCRETE - 90 mm thick 91.5 91.3 **GRANULAR FILL** SS1 Gravel with silt and sand, well graded, grey, 90.9 moist **FILL** SS2 Silty sand with gravel and shale fragments, brown, moist, (compact) 90.2 HIGHLY WEATHERED SHALE Silty sand and gravel, black, moist, (very dense) SHALE BEDROCK CORE1 Black, Very Poor Rock Quality 88.8 SHALE BEDROCK Black, Good to Excellent Rock Quality, Medium Strong CORE2 25.9 CORE3 CORE4 25.9 CORE5 CORE6 Continued Next Page WATER LEVEL RECORDS CORE DRILLING RECORD 1. Borehole data requires interpretation by EXP before Water RQD % Hole Open Run Depth % Rec. Date Level (m) To (m) No. (m) 2.31 mm monitoring well installed upon completion 12/06/2023 66 14-28 0 115 2 2.8 - 4.4 100 79 3. Field work was supervised by an EXP representative. 4.4 - 5.9 3 100 84 4. See Notes on Sample Descriptions

4

5

6

8

5.9 - 7.4

7.4 - 9

9 - 10.5

10.5 - 12

12 - 13.3

100

100

100

100

100

96

96

98

90

50

TROW OTTAWA.GDT

GPJ

LOG OF

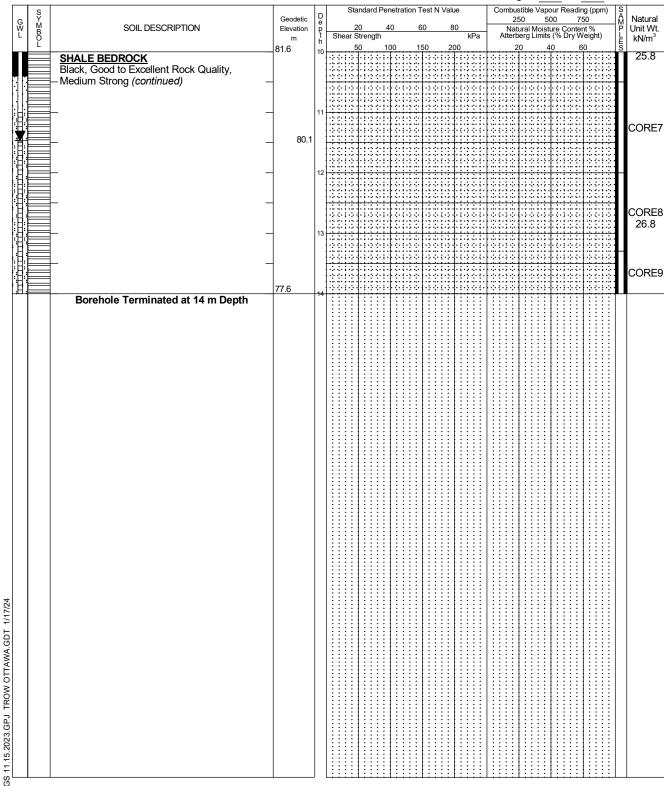
5. Log to be read with EXP Report OTT-23008400-B0

Project No: OTT-23008400-B0

Figure No. E

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



#### NOTES:

LOG OF BOREHOLE

- Borehole data requires interpretation by EXP before use by others
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
12/06/2023	11.5		

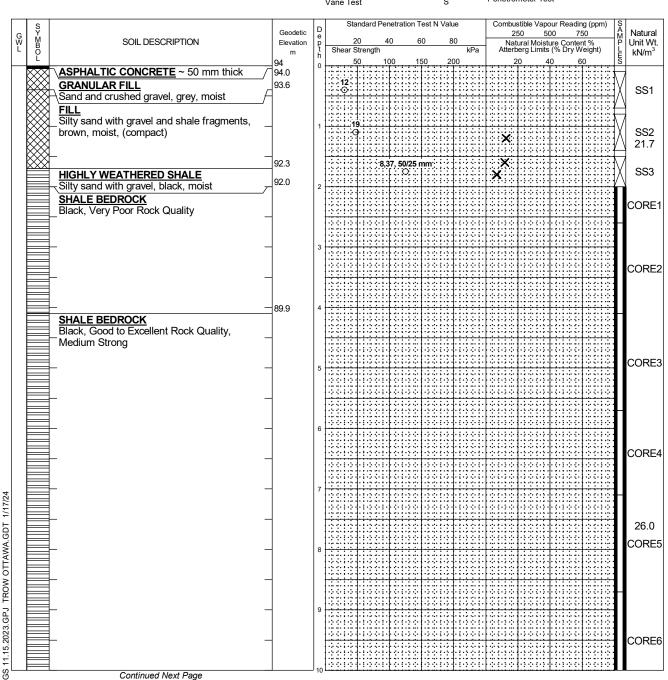
CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.4 - 2.8	66	0
2	2.8 - 4.4	100	79
3	4.4 - 5.9	100	84
4	5.9 - 7.4	100	96
5	7.4 - 9	100	96
6	9 - 10.5	100	98
7	10.5 - 12	100	90

100

50

12 - 13.3

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'November 3, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading Natural Moisture Content X Auger Sample Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



NOTES:

1. Borehole data requires interpretation by EXP before

use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5.Log to be read with EXP Report OTT-23008400-B0

	WATER LEVEL RECORDS		
Da	te	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	2 - 2.6	77	0
2	2.6 - 4.1	100	7
3	4.1 - 5.7	100	95
4	5.7 - 7.1	100	95
5	7.1 - 8.7	100	100
6	8.7 - 10.3	100	91
7	10.3 - 11.8	100	100

7 10.3 - 11.8 100 100 8 11.8 - 13.3 100 90

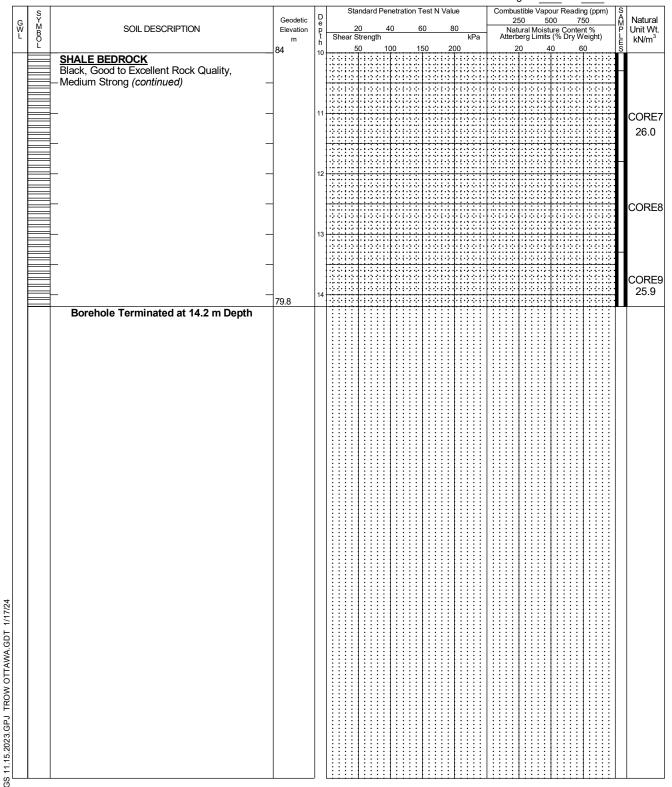
Project No: OTT-23008400-B0

Figure No.

E-12

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



#### NOTES:

OG OF BOREHOLE

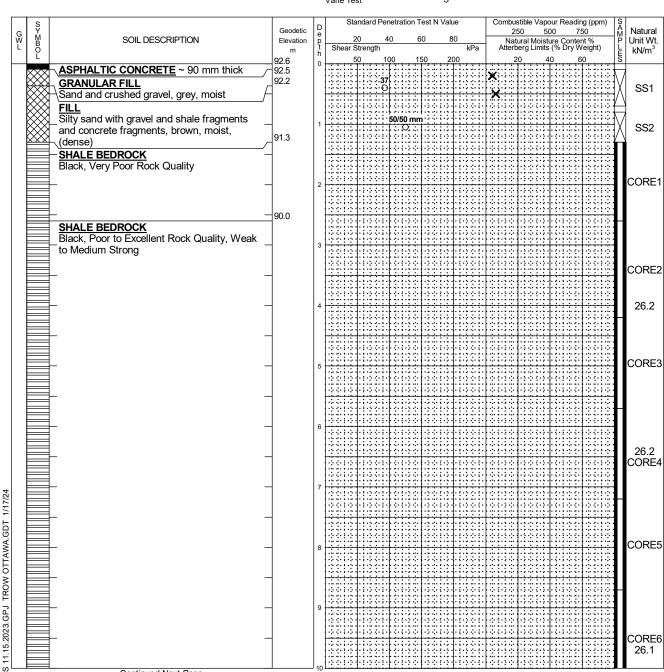
- Borehole data requires interpretation by EXP before use by others
- 2. Borehole was backfilled with soil cuttings upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	2 - 2.6	77	0
2	2.6 - 4.1	100	7
3	4.1 - 5.7	100	95
4	5.7 - 7.1	100	95
5	7.1 - 8.7	100	100
6	8.7 - 10.3	100	91
7	10.3 - 11.8	100	100

7 10.3 - 11.8 100 100 8 11.8 - 13.3 100 90

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'October 31, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading Natural Moisture Content X Auger Sample Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



Continued Next Page

Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.3 - 2.6	90	8
2	2.6 - 4.2	100	85
_			
3	4.2 - 5.7	100	94
4	5.7 - 7.2	100	95
5	7.2 - 8.7	100	93
6	8.7 - 10.3	100	98
7	10.3 - 11.8	100	100

100

100

11.8 - 13.3

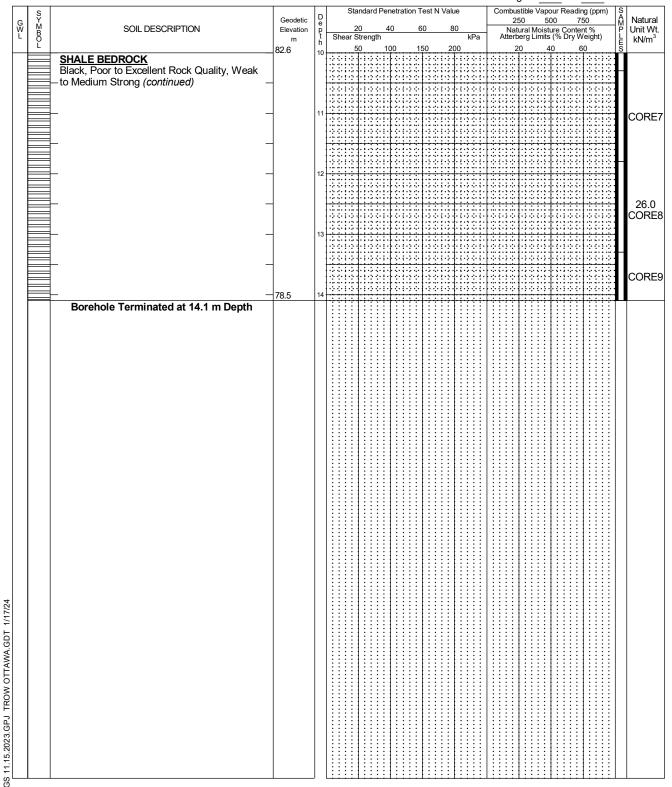
Project No: OTT-23008400-B0

Figure No.

E-13

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



#### NOTES:

Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

5.Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	

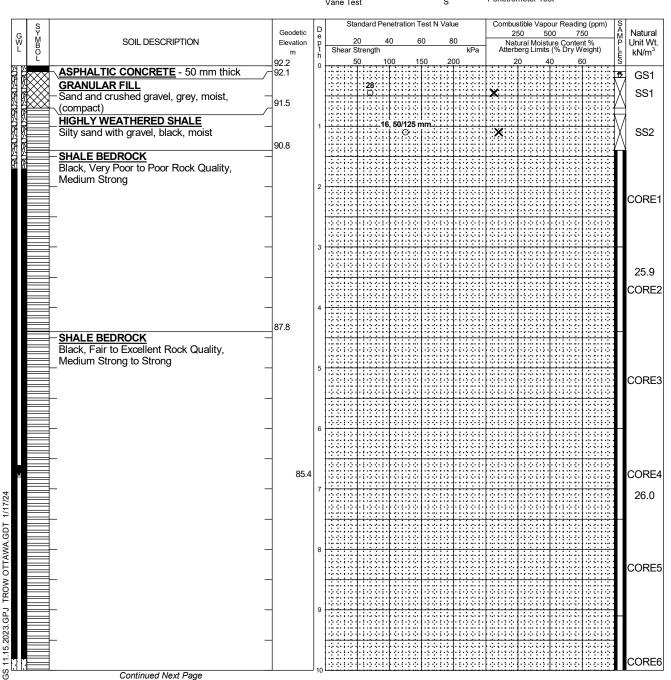
CORE DRILLING RECORD			
Run	Depth	% Rec.	RQD %
No.	(m)		
1	1.3 - 2.6	90	8
2	2.6 - 4.2	100	85
3	4.2 - 5.7	100	94
4	5.7 - 7.2	100	95
5	7.2 - 8.7	100	93
6	8.7 - 10.3	100	98
7	10.3 - 11.8	100	100

100

100

11.8 - 13.3

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'November 1, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



NOTES:

Borehole data requires interpretation by EXP before use by others

2.31 mm monitoring well installed upon completion

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS			
Date	Water Level (m)	Hole Open To (m)	
11/23/2023	10.0		
12/06/2023	6.8		

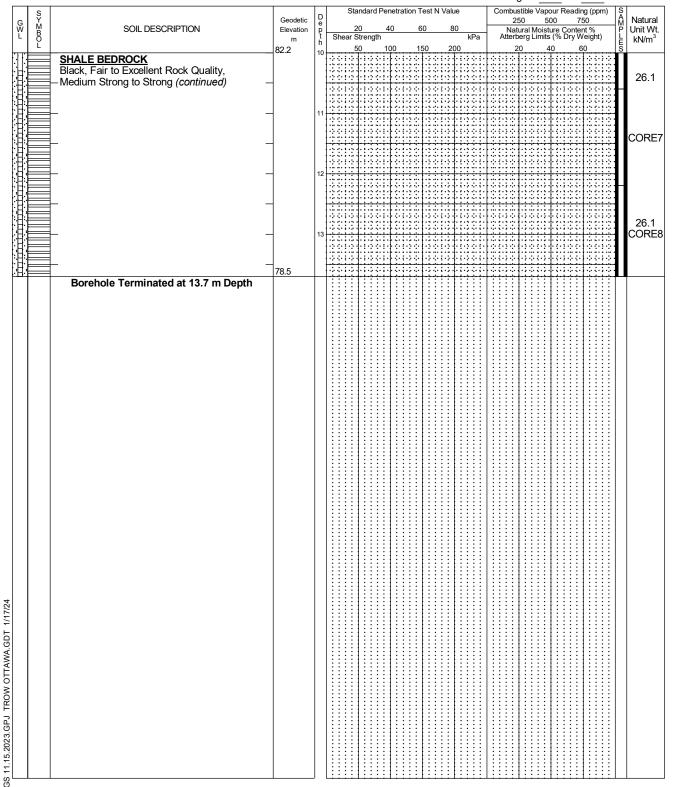
CORE DRILLING RECORD			
Run	Depth	% Rec.	RQD %
No.	(m)		
1	1.4 - 3	71	0
2	3 - 4.4	100	34
3	4.4 - 6	100	64
4	6 - 7.5	100	74
5	7.5 - 9.1	100	72
6	9.1 - 10.6	100	92
7	10.6 - 12.2	100	66

7 10.6 - 12.2 100 66 8 12.2 - 13.7 100 84

Project No: OTT-23008400-B0

Figure No. \_\_\_ E-1

Project: Geotechnical Investigation - Walkley Centre Development Page. 2 of 2



#### NOTES:

LOG OF BOREHOLE

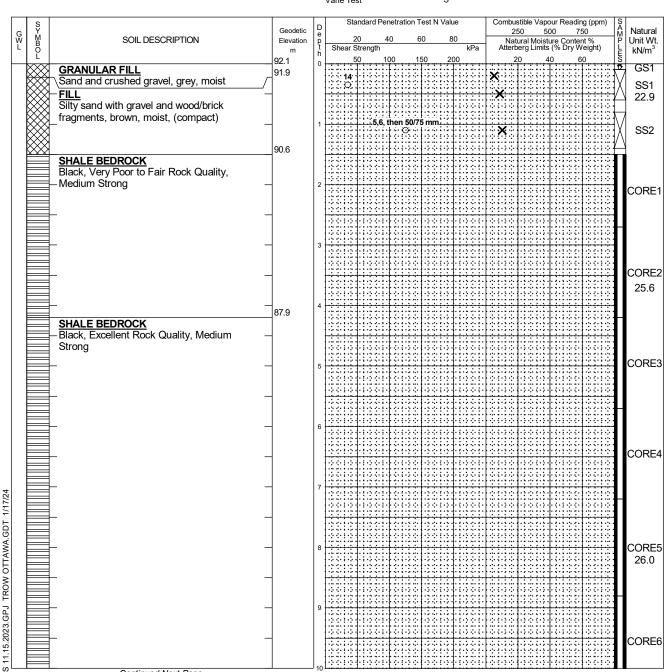
- Borehole data requires interpretation by EXP before use by others
- 2.31 mm monitoring well installed upon completion
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS		
Date	Water Level (m)	Hole Open To (m)
11/23/2023	10.0	
12/06/2023	6.8	

CORE DRILLING RECORD			
Run No.	Depth (m)	% Rec.	RQD %
1	1.4 - 3	71	0
2	3 - 4.4	100	34
3	4.4 - 6	100	64
4	6 - 7.5	100	74
5	7.5 - 9.1	100	72
6	9.1 - 10.6	100	92
7	10.6 - 12.2	100	66

12.2 - 13.7

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'November 2, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Elevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



Continued Next Page

Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS						
Date Water Hole Op Level (m) To (m)						

	CORE DRILLING RECORD						
Run No.	Depth (m)	% Rec.	RQD %				
1	1.5 - 2.7	100	0				
2	2.7 - 4.2	100	73				
3	4.2 - 5.7	100	92				
4	5.7 - 7.2	100	100				
5	7.2 - 8.8	100	92				
6	8.8 - 10.3	100	100				
7	10.3 - 11.8	100	92				

7 10.3 - 11.8 100 92 8 11.8 - 13.3 100 93

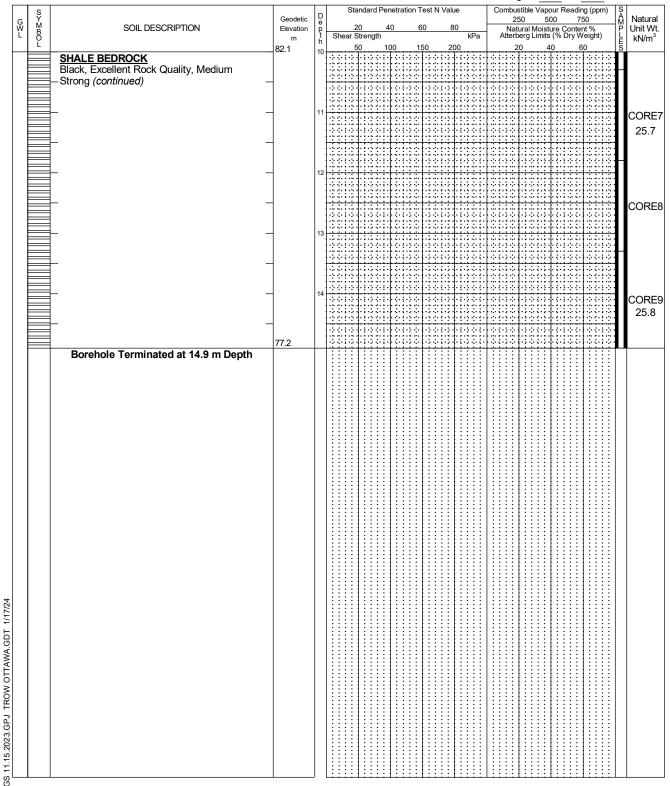
Project No: OTT-23008400-B0

Figure No.

E-15

Project: Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



### NOTES

OG OF BOREHOLE

Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

5.Log to be read with EXP Report OTT-23008400-B0

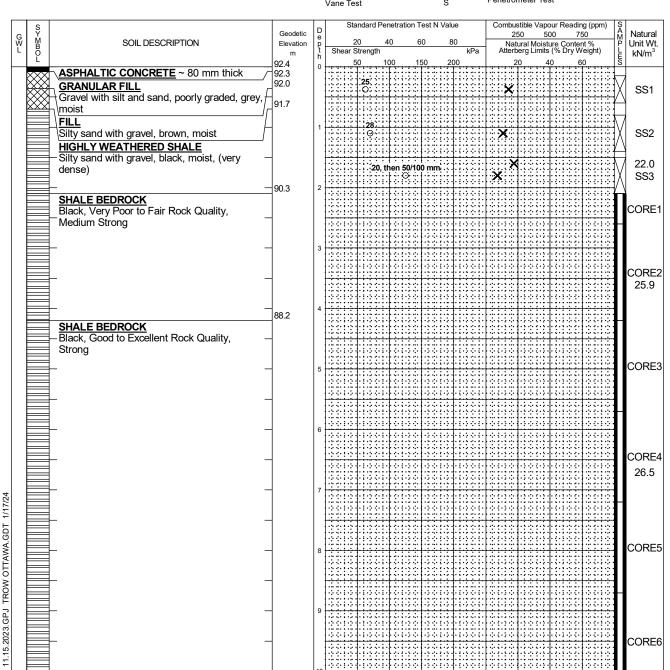
WATER LEVEL RECORDS					
Date	Water Level (m)	Hole Open To (m)			

CORE DRILLING RECORD						
Run No.	Depth (m)	RQD %				
1	1.5 - 2.7	100	0			
2	2.7 - 4.2	100	73			
3	4.2 - 5.7	100	92			
4	5.7 - 7.2	100	100			
5	7.2 - 8.8	100	92			
6	8.8 - 10.3	100	100			
7	10.3 - 11.8	100	92			

100

93

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'October 31, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading X Auger Sample Natural Moisture Content Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Flevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test



Continued Next Page

Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WA <sup>-</sup>	WATER LEVEL RECORDS					
Date	Water Hole Open Level (m) To (m)					

	CORE DRILLING RECORD						
Run No.	Depth (m)	% Rec.	RQD %				
1	2.1 - 2.6	81	0				
2	2.6 - 4.2	100	73				
3	4.2 - 5.7	100	93				
4	5.7 - 7.2	100	100				
5	7.2 - 8.7	100	83				
6	8.7 - 10.3	100	100				
7	10.3 - 11.8	100	100				

100

95

Project No: OTT-23008400-B0

Figure No.

Project: Geotechnical Investigation - Walkley Centre Development 2 of 2 Page.



W M SOIL DESCRIPTION   Elevation   p 20 40 60 80   Natural Moisture Content %   P Unit W	s Y			D	S	tandar	d Per	netration T	est N Va	ue				eading (pp	m) S	
SHALE BEDROCK Black, Good to Excellent Rock Quality.  Total  Tota	G Y	SOIL DESCRIPTION		е				0 6	0		Na	250 atural M	500 oisture Co	750 ontent %	— Ŕ	Natura Unit Wt
SHALE BEDROCK Strong (continued)  SHALE BEDROCK SHALE BEDROCK Black, Poor Rock Quality  Black, Poor Rock Quality  Table  Table  Barchole Terminated at 14.8 m Depth  NOTES  WATER LEVEL RECORDS Date Water Hale Open Run Depth % Roc. ROD %	r   Š				Shear			00 1	50 2		Atte			ry Weight		kN/m <sup>3</sup>
Black, Good to Excellent Rock Quality.  - 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	F	SHALE BEDROCK	02.4	10					.,,							
NOTES  NO		Black, Good to Excellent Rock Quality,													:::: <u>-</u>	-
SHALE BEDROCK Black, Poor Rock Quality  To a series of the result of the		Strong (continued)	$\dashv$		., ., .	<del>.   .   . ;</del>	· · ·	<del>                                     </del>	., ., .,	<del>! i : ; ; i</del> :			<del>:; :::</del> :	<del>;; ;;</del> ;	<del>: :-</del> :	
SHALE BEDROCK Black, Poor Rock Quality  To a series of the remained at 14.8 m Depth  NOTES.  WATER LEVEL RECORDS Due water Hole Open Run Depth Sk Roc. ROD %					3.5	~	3.1.		+					33433	; ;; :	
SHALE BEDROCK Black, Poor Rock Quality  T79.1  SHALE BEDROCK Black, Poor Rock Quality  T76.  Water Level, RECORDS Date of the requires interpretation by EXP before  Water Hole Open  Water Hole Open  RUI Depth % Roc. ROD %		_	$\dashv$	11			7.1.		1.3.2.2.3						:::::: :::::::::::::::::::::::::::::::	COR
SHALE BEDROCK Black, Poor Rock Quality  Trial  Borehole Terminated at 14.8 m Depth  Borehole Terminated at 14.8 m Depth  NOTES:  Water Level Records  CORE DILLING RECORD  Run Depth 9, Rec. ROD %										\$1331					; .;. ;	
SHALE BEDROCK Black, Poor Rock Quality  Trial  Borehole Terminated at 14.8 m Depth  SOTES:  WATER LEVEL RECORDS  OCRE DRILLING RECORD  Flora, Water Hole Open  Run Depth % Rec. ROD %		_	4				:::	*****		1:::::::					: :: :	
SHALE BEDROCK Black, Poor Rock Quality  Trial  Borehole Terminated at 14.8 m Depth  Borehole Terminated at 14.8 m Depth  NOTES:  Water Level Records  CORE DILLING RECORD  Run Depth 9, Rec. ROD %																
SHALE BEDROCK Black, Poor Rock Quality    Martin   Martin				12												
SHALE BEDROCK Black, Poor Rock Quality  Borehole Terminated at 14.8 m Depth  SOTES: 1. Boerhole data requires interpretation by EXP before 1. Boerhole data requires interpretat				-	3.3.1.		::::		3333	\$1331	3				; .; :	
SHALE BEDROCK Black, Poor Rock Quality  Borehole Terminated at 14.8 m Depth  SOTIES: 18. Borehole data sequires interpretation by EXP before 19. 10 10 10 10 10 10 10 10 10 10 10 10 10										######						
SHALE BEDROCK Black, Poor Rock Quality  T7.6  Borehole Terminated at 14.8 m Depth    NOTES: 1.50 pixels and properties interpretation by EXP before   Notes to be others.			٦				::::									COR
SHALE BEDROCK Black, Poor Rock Quality  T7.6  Borehole Terminated at 14.8 m Depth  OTES: 1. Boerhole data requires interpretation by EXP before use by others.																26.1
SHALE BEDROCK Black, Poor Rock Quality  T7.6  Borehole Terminated at 14.8 m Depth  OTES: 1. Boerhole data requires interpretation by EXP before use by others.		<del>-</del>	7	13	::::::		::::		33333	****			:::::::		<del>: :: :</del>	
Black, Poor Rock Quality  77.6  Borehole Terminated at 14.8 m Depth  NOTES: 1.8 soehole data requires interpretation by EXP before use by others.  WATER LEVEL RECORDS Data Water Hole Open  Note: Rod March 1960 (2011)  Note: Water Hole Open  Note: Rod March 1960 (2011)  Note: Rod March 1960 (2011)  Note: Rod March 1960 (2011)  Note: Note: Rod March 1960 (2011)  Note: Rod March 1960 (2011)  Note: Note: Rod March 1960 (2011)  Note: Rod March 1960 (2		SHALE BEDDOCK	79.1				7.1.								-	
NOTES:  18 Boreloid data requires interpretation by EXP before  WATER LEVEL RECORDS  Data  Water Hole Open  Run Depth % Rec. ROD %		Black Poor Rock Quality	$\dashv$										:::::::::::::::::::::::::::::::::::::::		; ; ;	
OCOR  T77.6  T77					22:1:		::::			‡:::::::	1:::::	: [::::::	:::::::		: :: : :::::::::::::::::::::::::::::::	
Borehole Terminated at 14.8 m Depth    Tr.6		<u> </u>	4	14		• • • • • •	* 1 * 1		12 2 1 2	1 1 2 2 2	10000			***	: · · ·	COR
NOTES:  WATER LEVEL RECORDS Lose by others  WATER LEVEL RECORDS Run Depth  WATER HOLE OPEN Run Depth  Run Depth  Run Depth  WATER LEVEL RECORDS Run Depth  Run Depth  Run Depth  Record Record Record Run Depth  Record Record Record Run Depth  Record																0011
NOTES:  WATER LEVEL RECORDS Laser by others  WATER LEVEL RECORDS Date  WATER LEVEL RECORDS Run Depth  WATER LEVEL RECORDS Run Depth  WATER LEVEL RECORDS Run Depth  WATER LEVEL RECORDS Run Depth Water Hole Open Run Depth Water Run Depth Wa		=	4		*****	<u> </u>	::::	*****	1 2 2 2 2 2	<u> </u>	1 1 1 1		***	<u> </u>	<u> </u>	
NOTES:  NOTES:  WATER LEVEL RECORDS  Uses by others  Water Hole Open Run Depth % Rec. RQD % Run Depth % Rec. RQD %							::::									
NOTES:  1. Borehole data requires interpretation by EXP before use by others  WATER LEVEL RECORDS  CORE DRILLING RECORD  Run Depth % Rec. RQD %																
1. Borehole data requires interpretation by EXP before use by others WATER LEVEL RECORDS CORE DRILLING RECORD  WATER LEVEL RECORDS  CORE DRILLING RECORD  Nater Hole Open Run Depth % Rec. RQD %				_							L				::L	<u> </u>
use by others     Date   Water   Hole Open   Run   Deptn   % Rec.   RQD %			WATE	RL	EVEL F	RECO	RDS				С	ORE D	RILLING	RECOF	RD	
	use	by others	Date	-		,,							%	Rec.	F	RQD %

LOG OF BOREHOLE

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

5. Log to be read with EXP Report OTT-23008400-B0

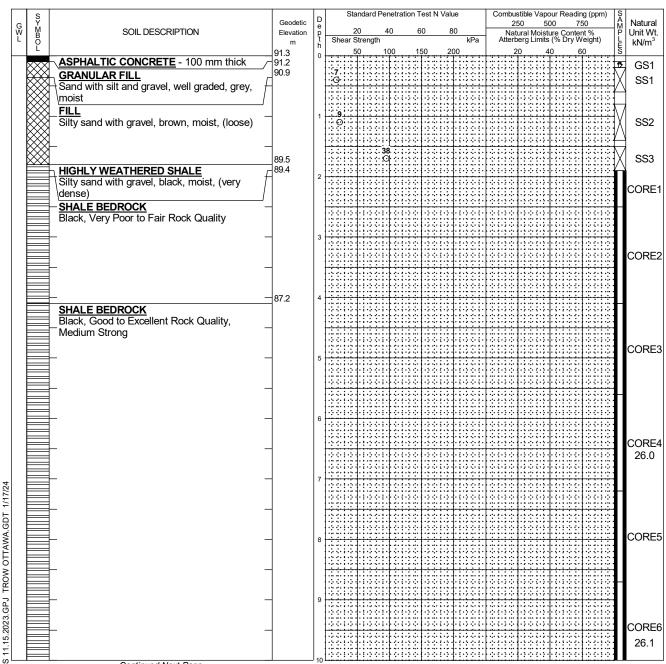
WATER LEVEL RECORDS					
Date	Water Level (m)	Hole Open To (m)			

	CORE DRILLING RECORD						
Run No.	Depth (m)	% Rec.	RQD %				
1	2.1 - 2.6	81	0				
2	2.6 - 4.2	100	73				
3	4.2 - 5.7	100	93				
4	5.7 - 7.2	100	100				
5	7.2 - 8.7	100	83				
6	8.7 - 10.3	100	100				
7	10.3 - 11.8	100	100				

100

95

Project No: OTT-23008400-B0 Figure No. Project: Geotechnical Investigation - Walkley Centre Development 1 of 2 Page. Location: 1822-1846 Bank Street, Ottawa, Ontario Date Drilled: 'November 2, 2023 Split Spoon Sample  $\boxtimes$ Combustible Vapour Reading Auger Sample Natural Moisture Content X Drill Type: CME-55 Truck-Mounted Drill Rig 0 SPT (N) Value 0 Atterberg Limits Dynamic Cone Test Undrained Triaxial at Datum: Geodetic Flevation  $\oplus$ % Strain at Failure Shelby Tube Shear Strength by Logged by: Checked by: D.W. Shear Strength by Penetrometer Test Standard Penetration Test N Value Combustible Vapour Reading (ppm) Geodetic



Continued Next Page

1. Borehole data requires interpretation by EXP before use by others

2. Borehole was backfilled with soil cuttings upon completion.

3. Field work was supervised by an EXP representative.

4. See Notes on Sample Descriptions

LOG OF

5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS						
Date	Water Level (m)	Hole Open To (m)				

	CORE DRILLING RECORD						
Run No.	Depth (m)	% Rec.	RQD %				
1	1.9 - 2.5	77	0				
2	2.5 - 4.1	100	68				
3	4.1 - 5.6	100	81				
4	5.6 - 7.2	100	90				
5	7.2 - 8.7	100	90				
6	8.7 - 10.2	100	95				
7	10.2 - 11.8	100	100				

Project No: OTT-23008400-B0

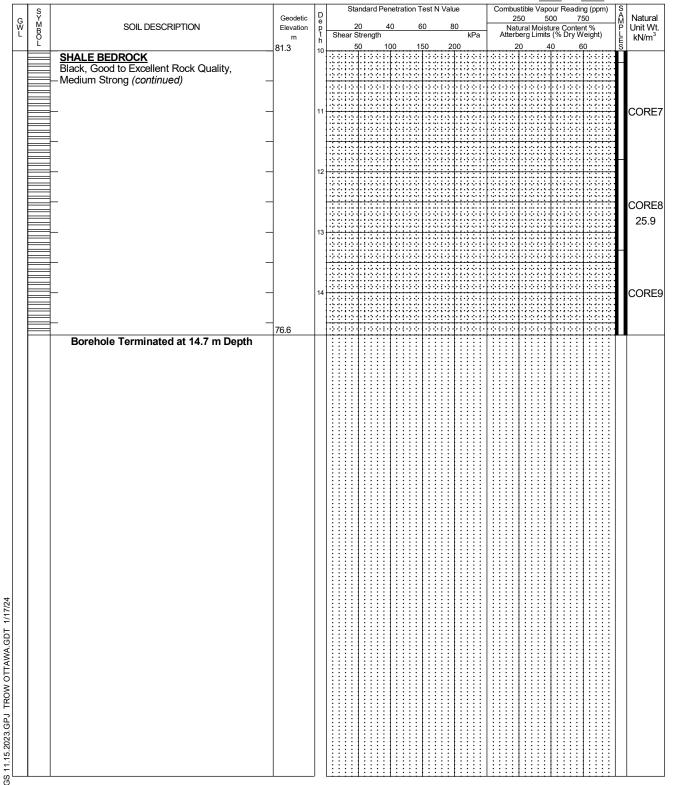
Figure No.

E-17

Project:

Geotechnical Investigation - Walkley Centre Development

Page. 2 of 2



### NOTES:

-0G OF

- Borehole data requires interpretation by EXP before use by others
- 2. Borehole was backfilled with soil cuttings upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5. Log to be read with EXP Report OTT-23008400-B0

WATER LEVEL RECORDS						
Date	Date Water Hole Ope Level (m) To (m)					

	CORE DF	RILLING RECOR	D
Run No.	Depth (m)	% Rec.	RQD %
1	1.9 - 2.5	77	0
2	2.5 - 4.1	100	68
3	4.1 - 5.6	100	81
4	5.6 - 7.2	100	90
5	7.2 - 8.7	100	90
6	8.7 - 10.2	100	95
7	10.2 - 11.8	100	100

7 10.2 - 11.8 100 100 8 11.8 - 13.3 100 100

# Log of Probabola PH-1

Project No: OTT-230025	Log c	of Pr	O	be	ho	ol	e _	Pŀ	<u> 1-1</u>						(	ΞXI	D.
	<u>ਤਰ-ਰਹ</u> l Investigation <i>-</i> Walkley	Contro D	01/0	Jonmor	<b>.</b> +				!	Figure	No.	_	2	<u> </u>			
	Bank Street, Ottawa, Ont		eve	юртнет	ıı					Р	age.	_1	<u></u> of	_1	_		
Date Drilled: 'June 17, 202		ano		0 171 0								.,					
	:k-Mounted Drill Rig		-	Split Spo Auger Sa			•		-				our Rea Content	-		×	
Datum: Geodetic Ele			-	SPT (N) Dynamic			t		· -	Atterb Undra	-		at		⊢	<b>→</b>	
Logged by: M.Z.	Checked by: I.T.		_	Shelby T	ube				-	% Stra	ain at F	ailure	•			<b>⊕</b>	
Logged by. M.Z.	Checked by. 1.11.			Shear St Vane Tes		1 by		<del> </del>   S	-	Penet						•	
G Y M B SOIL D	ESCRIPTION	Geodetic Elevation m		Shear S	20 Streng	th	) 6		80 kPa		250 latural erberg	50 Moistu Limits	our Rea 00 ure Con (% Dry	750		S A M Natura P Unit W kN/m	/t.
	RETE ~ 80 mm thick	92.19 92.1	0		50	10	0 1	50	200		20	4	0	60	<del></del> .	S	$\dashv$
GRANULAR FILL Sand and crushed	gravel, grey, moist	91.5		33.13											::::::::::::::::::::::::::::::::::::::		
OVERBURDEN Not Sampled		91.5		-9-6-1-9					1000								
- Not Sampled			'	-2-0-1-2													
		_		.0.0.1.0			- 0- 1 - 2 - 0- - 0- 1 - 2 - 0- - 0- 1 - 2 - 0-										
		90.1	2	-5-6-1-5					1.1.5.5.6		::   : : : : : : : : : : : : : : : : :				· · · · · ·		
HIGHLY WEATHER Black	RED SHALE			.0.0.1.0													
				-2-0-1-2			0.1.20		1111111								
			3	2 2 1 2													
		_		1000100													
			4	-2011													
			'														
				-5 -5 -5													
		_	5	33313													
				-2-6-1-2					1111111						4: 1:2: 4: 1:2:		
		96.2		10.01110													
Auger Refus	sal at 6.0 m Depth	86.2	6														
NOTES:		1000		F./E' 5:					1::::	1:::	. L .	DD::	LINIC	: L :	000		
Borehole data requires interpretat use by others		WATE Date		EVEL RI Water			lole Op		Run	De	epth	DKIL	LING % R		UKD	RQD %	$\dashv$
2. Borehole was backfilled upon com	ppletion.	- 310	L	<u>evel (m)</u>			To (m)	)	No.	(	m)	+			+		$\dashv$
<ul><li>3. Field work was supervised by an E</li><li>4. See Notes on Sample Description</li></ul>	1																

LOG OF BOREHOLE 1822 BANK GINT LOGS 06.21.2024.GPJ TROW OTTAWA.GDT 8/27/24

5.Log to be read with EXP Report OTT-23002538-B0

roject No:	<u>OTT-23002538-B0</u>							•									20			<b>7</b>
roject:	Geotechnical Investigation - Walkley	Centre De	eve	lopm	nen	t					_	F						- 4		ı
ocation:	1822-1846 Bank Street, Ottawa, Onta	ario											ŀ	Pag	e.	_1	_ of	_1_		
ate Drilled:	'June 17, 2024			Split S	Spoo	n Sa	nple			$\boxtimes$			Com	bustil	ble V	ароц	ır Read	ing		
	CME-55 Truck-Mounted Drill Rig		-	Auge	r Sar	nple							Natu	ral M	oistu	re Co	ontent	Ü		×
	Geodetic Elevation		-	SPT (			Test		_	0			Atter Undr	ained	d Tria	xial a	at			<b>→</b> ⊕
gged by:	M.Z. Checked by: I.T.		_	Shelb	r Stre	ength	by			+ \$			% St Shea Pene	ar Str	ength	ı by				<b>▲</b>
S			Тр	Vane			Pene	etration	Test N		lue						ur Read	ing (ppr	n) Ş	
Y M B O	SOIL DESCRIPTION	Geodetic Elevation m	e p t h	She		rengt			60			Pa	At		ral Mo erg Lir		re Conte (% Dry \		n) SAMPLES	Natural Unit Wt kN/m³
	HALTIC CONCRETE ~ 150 mm thick	93.59 93.4	0	1	50	)	10	0	150	2	00	: ::		20	) 	40	) :::::::	60	S ::::	
GRAI Sand	NULAR FILL and crushed gravel, grey, moist			333						:::									::::	
$\bowtie$	RBURDEN	92.8								::;										
	Sampled		1							:::										
		-		-2-4-	-2-			4-1-2-5		1.7	1 1 - 2 -	:- : -   :- : -	-1-1-	: -:- { : -:- {			4-1-0-2 4-1-0-3		÷ -	
		91.5	2							::;							*****			
HIGH Black	LY WEATHERED SHALE									( · · ) ( · · ) ( · · )										
										::: :::										
		-	3	1.5.3.						: · · ·	1	: ; ; ; : ; ; ;							÷ :	
										:::										
	Auger Refusal at 3.8 m Depth	89.8	-							<u>;;;</u>										
TES:			_					: : : :	1::	:: ¬		::1	::		:::	- 1	::::	1:::	<u>:                                    </u>	
	equires interpretation by EXP before	WATE		Wate	er	COF		ole O		+	Rui			epth		RILI	LING F % Re	RECOF		QD %
•	ackfilled upon completion.	raic	L	_evel (	(m)			To (n	n)	+	No	+		(m)						
Field work was	supervised by an EXP representative.																			

LOG OF BOREHOLE 1822 BANK GINT LOGS 06.21.2024.GPJ TROW OTTAWA.GDT 8/27/24

# Log of Probehole PH<sub>-</sub>3

Project No:	Log o	f Pr	0	beh	ole _	Pŀ			•	exp
Project:	Geotechnical Investigation - Walkley	Centre De	eve	elopment			ı	_	23	ı
_ocation:	1822-1846 Bank Street, Ottawa, Onta			-				Page. <sub>-</sub>	1 of 1	
Date Drilled:	'June 17, 2024			Split Spoon S	amnle	⋉	 1	Combustible Va	nour Reading	
rill Type:	CME-55 Truck-Mounted Drill Rig		-	Auger Sample	•			Natural Moisture	e Content	×
Datum:	Geodetic Elevation		-	SPT (N) Value Dynamic Cone			) -	Atterberg Limits Undrained Triax		<b>⊢</b> ⊖
			-	Shelby Tube			I	% Strain at Faile Shear Strength	ure	$\oplus$
ogged by:	M.Z. Checked by: I.T.			Shear Strengt Vane Test	h by	<del> </del>   S	-	Penetrometer T		<b>A</b>
S Y M B O	SOIL DESCRIPTION	Geodetic Elevation m		20 Shear Streng	d Penetration T  40 6 gth		80 kPa	250	apour Reading (ppr 500 750 isture Content % nits (% Dry Weight)	M Natural
ASPI	HALTIC CONCRETE ~ 120 mm thick	92.12 92.0	0	50	100 15	50	200	20	40 60	<u> </u>
GRA	NULAR FILL I and crushed gravel, grey, moist									
$\bowtie$	RBURDEN	91.4		-2						
Not S	Sampled	90.9	1							
HIGH Black	ILY WEATHERED SHALE						1 1 1 1 1 1			
	-		2	-3 -5 -1 -3 -1 -3		-3 -3 -3 -3				
							171517			
	·		3							
	-									
			١,	-2010						
			4							
				-3.0.1.3.1.3.1.3					<u> </u>	
	_		5	-2-3-1-2-1-2	3. 1. 1. 2. 1. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.					
	Auger Refusal at 5.2 m Depth	86.9			**************************************			-	1	
OTES:		WATE	RL	EVEL RECO	RDS			CORE DE	RILLING RECOF	
Borehole data ruse by others	equires interpretation by EXP before Da	ate		Water Level (m)	Hole Ope		Run No.	Depth (m)	% Rec.	RQD %
	ackfilled upon completion.			(III)	10 (111)		140.	\''''/		
	supervised by an EXP representative.  ample Descriptions									
	with EXP Report OTT-23002538-B0									

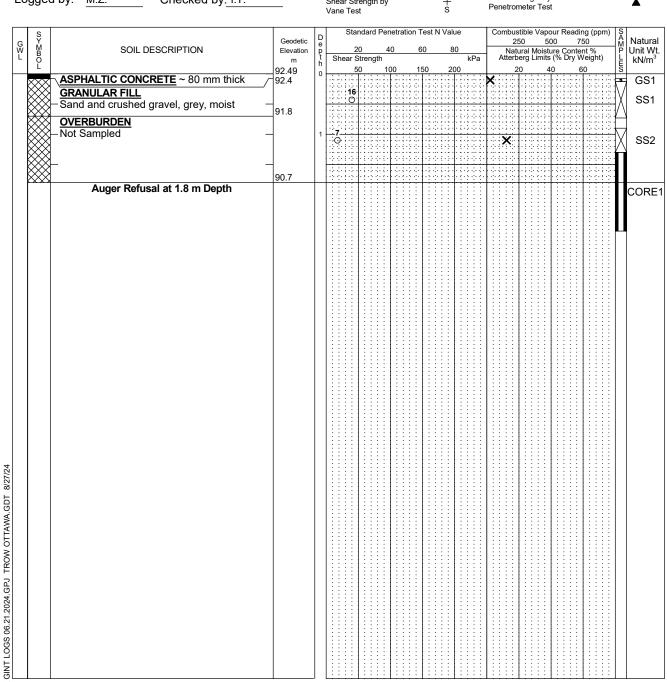
LOG OF BOREHOLE 1822 BANK GINT LOGS 06.21.2024.GPJ TROW OTTAWA.GDT 8/27/24

roject No:	OTT-23002538-B0		U	DCII	OI	<b>-</b>	<u> </u>		Figure I	No.	24		9	Χľ
roject:	Geotechnical Investigation - Walkley C	entre De	ve	lopment				'	_		1 of			'
ocation:	1822-1846 Bank Street, Ottawa, Ontari	io								go		<u> </u>		
ate Drilled:	'June 17, 2024		-	Split Spoon S			$\boxtimes$				our Readi	ng		
ill Type:	CME-55 Truck-Mounted Drill Rig			Auger Sample SPT (N) Value					Natural Atterber	Moisture g Limits	Content	F		X ⊕
atum:	Geodetic Elevation		-	Dynamic Con Shelby Tube	e Test		_	I		ed Triaxia at Failur				$\oplus$
gged by:	M.Z. Checked by: I.T.			Shear Strengt Vane Test	th by		+ s			trength b meter Te				<b>A</b>
SYMBO-	SOIL DESCRIPTION	Geodetic Elevation m	D e p t h	20 Shear Stren	40 gth		0	80 kPa	Nat Atterl	50 5 ural Mois perg Limit	ture Conte s (% Dry V	nt % Veight)	Jâl	Natural Unit Wt. kN/m³
	HALTIC CONCRETE ~ 90 mm thick	92.47 92.4	0	50	10	0 15	50 2	200		20	40 (	30  -:	: :	
	NULAR FILL I and crushed gravel, grey, moist —												-	
	RBURDEN	91.7	1											
Not s	Sampled	04.0	ľ								1:::::			
	ILY WEATHERED SHALE	91.0				0. 1. 2. d 0. 1. 2. d	-2-3-3-2						1	
Blac	_		2					10000			1 2 1 2 2 2	1.5 (.1.5	-	
	_								3.33			3013		
						0 1 0 0 0 0 1 0 0 0	-3 (-1 (-2					-5 (-1 -5 -5 (-1 -5		
	_		3										1	
	_			· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·	· 2 · 0 · 6 · 2	111111			<u> </u>	10010	-	
			١.											
	_		4											
	_					**************************************							1	
	Auger Refusal at 4.9 m Depth	87.6									+:::::		1	
TES:		14/	_	D. (5) - 5-6-	::1			1::::	1::::	DE 55:	1::::			
	requires interpretation by EXP before Dat			EVEL RECC Water		ole Ope		Run	Dep	th	LLING R % Re			QD %
•	ackfilled upon completion.	-	L	evel (m)		To (m)	$\dashv$	No.	(m	)		+		
	supervised by an EXP representative.													

LOG OF BOREHOLE 1822 BANK GINT LOGS 06.21.2024.GPJ TROW OTTAWA.GDT 8/27/24

5.Log to be read with EXP Report OTT-23002538-B0

Project No:	OTT-23002538-B0	<u> </u>		CV
Project:	Geotechnical Investigation - Walkley Centre Do	evelopment	Figure No25_	
Location:	1822-1846 Bank Street, Ottawa, Ontario		Page1_ of _1_ 	_
Date Drilled:	'June 17, 2024	_ Split Spoon Sample	Combustible Vapour Reading	
Orill Type:	CME-55 Truck-Mounted Drill Rig	Auger Sample  SPT (N) Value	Natural Moisture Content Atterberg Limits	<b>×</b> ⊢—⊖
Datum:	Geodetic Elevation	Dynamic Cone Test  Shelby Tube	Undrained Triaxial at % Strain at Failure	$\oplus$
_oaaed bv:	M.Z. Checked by: I.T.	Shear Strength by	Shear Strength by	•



### NOTES:

LOG OF 1

- Borehole data requires interpretation by EXP before use by others
- 2. Borehole was backfilled upon completion.
- 3. Field work was supervised by an EXP representative.
- 4. See Notes on Sample Descriptions
- 5.Log to be read with EXP Report OTT-23002538-B0

WAT	ER LEVEL RECO	RDS
Date	Water Level (m)	Hole Open To (m)

	CORE DR	RILLING RECOF	RD
Run No.	Depth (m)	% Rec.	RQD %
1	1.3 - 2.6	100	0

Project No:		y or Fr	U		<u>_</u>		<u>ا</u>	_	<u> </u>					,	26		$\leftarrow$	X
Project:	Geotechnical Investigation - W	/alkley Centre D	eve	lopn	ner	nt					Figur ,				26	1		- 1
Location:	1822-1846 Bank Street, Ottaw	/a, Ontario									ŀ	⊃ag	e	<u>1</u> (	of _			
Date Drilled:	'June 17, 2024		_	Split	Spo	on Sa	ampl	е	×		Com	busti	ble Vap	our R	eadin	g		
Drill Type:	CME-55 Truck-Mounted Drill R	ig	_	Auge									oisture Limits	Conte	nt			<b>X</b> ⊕
Datum:	Geodetic Elevation		_	Dyna	mic	Cone		st			Undr	aine	d Triaxia at Failur				•	⊕
Logged by:	M.Z. Checked by:	I.T.		Shell Shea Vane	ır Stı	rengtl	n by		+ s		Shea	ar Str	ength b eter Te	y				•
G Y M B O L	SOIL DESCRIPTION	Geodetic Elevation m	p t h	She	2 ear S	ndard 20 Streng	4 jth	netration T 0 6	0	80 kPa		25	ral Mois erg Limit	500	750	0 t % eight)	n) SA N P L ES	3
	HALTIC CONCRETE ~ 90 mm th NULAR FILL	92.26 ick 92.2 92.0	0					00 15	50 <u>2</u>	200				40				1
Sanc	d and crushed gravel, grey, mois  RBURDEN	<u>t</u>		10.00	1.2.		- 1 · · · · · · · · · · · · · · · · · ·			1.1.1.1.1				1 2 2 2		-0-0-1 -0-0-1 -0-0-1		
	Sampled	4	1															
				-2-0-	1:2:		0: 1: 0: 1:		-3-0-6-3							:2 (: 1 :2 (: 1		
	Auger Refusal at 1.7 m Depth	90.6	+	13.0	1.2.						1 :: :	; .:.		1 :::				
8/27/24																		
TROW OTTAWA.GDT 8/27/24																		
024.GPJ TROW																		
NOTES:  1. Borehole data ruse by others																		
O L L L L L L L L L L L L L L L L L L L		WATE	:Bı	E\/Eı	P		RD	3			1::	COP	E DRI		G PE	COF	: L	1
1. Borehole data r use by others	requires interpretation by EXP before	Date		Wat	er	П		Hole Ope	en	Run		Depth			Rec			RQD %
2. Borehole was b 3. Field work was 4. See Notes on S	packfilled upon completion. supervised by an EXP representative. Sample Descriptions with EXP Report OTT-23002538-B0			<u>evel</u>	(111 <u>)</u>			<u>To (m)</u>		No.		<u>(m)</u>						

**EXP Services Inc.** 

Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix F: Analytical Summary Tables** 



# Table 1 · Analytical Results in Soll · PHC and VOC 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

			Provincial										Si	amples									
Sample ID	UNITS	MECP Table 3 Residential <sup>2</sup>	MECP Table 7 Residential <sup>1</sup>	BH/MW-1 SS2	DUP 2 (BH/MW-1 SS2)	BH/MW-1 SS3	BH/MW-2 SS1	BH/MW-2 AS3	BH/MW-3 SS-1	BH/MW-4 SS-2	BH-6 5S1	BH-6 SS2	BH/MW-7 SS2A	BH/MW-7 SS2B	BH/MW-8 AS3	BH/MW-9 AS1	BH/MW-9 SS2	BH/MW-10 AS1	BH/MW-10 SS2	DUP 1 (BH/MW-10 SS2)	BH/MW-11 SS1	BH/MW-11 SS2	DUP 3 (BH/MW-11 SS
Lab ID	UNIIS	Residential	Residencial	RH.1 SS2	DUP 2	RH.1 SS3	BH.2 SS1	RH.2 AS3	BH.3 SS.1	RH.4 SS.2	BH.6 \$\$1	RH.6 SS2	BH.7 SS2A	BH.7 SS2B	8H.8 AS3	RH-9 AS1	RH.9 SS2	BH.10 AS1	RH-10 SS2	DUP 1	RH-11 SS1	RH-11 SS2	DUP3
Sampling Date				26-Oct-23	26-Oct-23	26-Oct-23	30-Oct-23	30-Oct-23	14-Dec-23	14-Dec-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	20-Oct-23	30-Oct-23	30-Oct-23
Sample Depth (mbes)				0.9 to 1.5	0.9 to 1.5	1.7 to 2.3	0.2 to 0.8	1.7 to 2.3	0.1 to 1.2	1.2 to 1.5	0.1 to 0.7	0.9 to 1.3	0.9 to 1.2	1.2 to 1.5	1.5 to 2.1	0.1 to 0.5	0.8 to 2.4	0.1 to 0.7	0.9 to 1.5	0.9 to 1.5	0.1 to 0.7	0.8 to 1.4	0.8 to 1.4
Petroleum Hydrocarbons	•					•																	
F1 PHC (C6-C10)	ug/g	55	55	<10	<10	<10	<10	50	<10	<10	<10	26	<10	32	<10	<10	13	<10	<10	<10	<10	<10	<10
F2 PHC (C10-C16)	µg/g	98	98	<10	<10	19	<10	44	<10	<10	<15	34	<10	<20	<10	<10	26	<10	<10	<10	<10	<10	24
F3 PHC (C16-C34)	ug/g	300	300	<50	<50	<s0< td=""><td>&lt;50</td><td>&lt;50</td><td>&lt;50</td><td>&lt;50</td><td>&lt;60</td><td>&lt;50</td><td>&lt;50</td><td>&lt;95</td><td>170</td><td>150</td><td>&lt;50</td><td>110</td><td>&lt;50</td><td>&lt;50</td><td>69</td><td>&lt;50</td><td>57</td></s0<>	<50	<50	<50	<50	<60	<50	<50	<95	170	150	<50	110	<50	<50	69	<50	57
F4 PHC (C34-C50)	µg/g	2800	2800	<50	<s0< td=""><td>&lt;50</td><td>&lt;50</td><td><s0< td=""><td>&lt;50</td><td>&lt;50</td><td><s0< td=""><td><s0< td=""><td>&lt;50</td><td>&lt;50</td><td>510</td><td>450</td><td>&lt;50</td><td>430</td><td>&lt;50</td><td>&lt;50</td><td>88</td><td><s0< td=""><td><s0< td=""></s0<></td></s0<></td></s0<></td></s0<></td></s0<></td></s0<>	<50	<50	<s0< td=""><td>&lt;50</td><td>&lt;50</td><td><s0< td=""><td><s0< td=""><td>&lt;50</td><td>&lt;50</td><td>510</td><td>450</td><td>&lt;50</td><td>430</td><td>&lt;50</td><td>&lt;50</td><td>88</td><td><s0< td=""><td><s0< td=""></s0<></td></s0<></td></s0<></td></s0<></td></s0<>	<50	<50	<s0< td=""><td><s0< td=""><td>&lt;50</td><td>&lt;50</td><td>510</td><td>450</td><td>&lt;50</td><td>430</td><td>&lt;50</td><td>&lt;50</td><td>88</td><td><s0< td=""><td><s0< td=""></s0<></td></s0<></td></s0<></td></s0<>	<s0< td=""><td>&lt;50</td><td>&lt;50</td><td>510</td><td>450</td><td>&lt;50</td><td>430</td><td>&lt;50</td><td>&lt;50</td><td>88</td><td><s0< td=""><td><s0< td=""></s0<></td></s0<></td></s0<>	<50	<50	510	450	<50	430	<50	<50	88	<s0< td=""><td><s0< td=""></s0<></td></s0<>	<s0< td=""></s0<>
F4 PHC (C34-C50) Gravimetric	µg/g	2800	2800										-		2500	3100		2400			-		
Volatile Organic Compounds													•	•	•			•				•	
Acetone	ue/e	16	16	<0.49	<0.49	<0.49	<0.49	< 0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49	<0.49
Benzene	HR/R	0.21	0.21	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	0.092	<0.0060	0.029	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060	<0.0060
Bromodichloromethane	ug/g	13	13	×0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	40 040	<0.040	40 040	<0.040	<0.040
Bromoform	HR/R	0.27	0.27	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Bromomethane	HR/R	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Carbon Tetrachloride	ug/g	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chiorobenzene	HR/R	2.4	2.4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Chleroform	ug/g	0.05	0.05	<0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dibromochloromethane	ug/g	9.4	9.4	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1.2-Dichlorobenzene	µg/g	3.4	3.4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	ug/g	4.8	4.8	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1.4-Dichlorobenzene	ug/g	0.083	0.083	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Dichlorodifluoromethane	ug/g	16	16	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1-Dichloroethane	μg/g	3.5	3.5	<0.040	< 0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,2-Dichloroethane	µg/g	0.05	0.05	<0.049	< 0.049	< 0.049	< 0.049	< 0.049	< 0.049	<0.049	< 0.049	< 0.049	< 0.049	< 0.049	<0.049	< 0.049	< 0.049	<0.049	<0.049	<0.049	<0.049	<0.049	< 0.049
1.1-Dichloroethylene	ug/g	0.05	0.05	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	< 0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	μg/g	3.4	3.4	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	µg/g	0.084	0.084	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,2-Dichloropropane	µg/g	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Cis-1,3-Dichloropropylene	µg/g	NV	NV	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	<0.030	< 0.030	< 0.030	< 0.030	< 0.030	<0.030	< 0.030	< 0.030	<0.030	<0.030	<0.030	<0.030	<0.030	< 0.030
Trans-1,3-Dichloropropylene	µg/g	NV	NV	<0.040	< 0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	< 0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,3-Dichloropropylene, Total	µg/g	0.05	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	µg/g	2	2	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	<0.010	< 0.010	< 0.010	< 0.010	<0.020(1)	0.14	0.01	0.14	<0.010	< 0.010	< 0.010	< 0.010	<0.010	< 0.010
Ethylene Dibromide	µg/g	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Hexane(n)	µg/g	2.8	2.8	<0.040	<0.040	<0.040	<0.040	0.9	<0.040	<0.040	<0.040	0.14	<0.040	<0.040	0.26	<0.040	0.32	<0.040	<0.040	<0.040	0.044	<0.040	<0.040
Methyl Ethyl Ketone	μg/g	16	16	<0.40	<0.40	<0.40	<0.40	<0.40	< 0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl Isobutyl Ketone	μg/g	1.7	1.7	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	μg/g	0.75	0.75	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Methylene Chloride	µg/g	0.1	0.1	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.58(1)	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
Styrene	μg/g	0.7	0.7	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	μg/g	0.058	0.058	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Tetrachloroethylene	μg/g	0.28	0.28	0.16	0.27	0.90	<0.040	<0.040	1.7	0.89	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Toluene	µg/g	2.3	2.3	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.063	<0.020	0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
1,1,1-Trichloroethane	µg/g	0.38	0.38	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	μg/g	0.05	0.05	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	< 0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Trichloroethylene	µg/g	0.061	0.061	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	< 0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g	4	4	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Vinyl Chloride	µg/g	0.02	0.02	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	< 0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019	<0.019
Xylene, m,p-	µg/g	NV	NV	<0.020	<0.020	<0.020	<0.020	0.099	<0.020	<0.020	<0.020	0.066	<0.020	<0.020	0.38	0.039	0.4	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene, o-	µg/g	NV	NV	<0.020	<0.020	<0.020	<0.020	0.023	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.067	<0.020	0.12	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total Xylenes	μg/g	3.1	3.1	<0.020	<0.020	<0.020	<0.020	0.12	<0.020	<0.020	<0.020	0.066	<0.020	<0.020	0.45	0.039	0.52	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020

Details Ministry of Environment, Consumation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV. 1 of the Environmental
Protection Act, April 2011, Table 7 Genetics Standards (SCI) for Saliner Soils in a Non-Postable Ground Water Condition and
Protection Act, April 2011, Table 7 Genetics Standards (SCI) for Saliner Soils in a Non-Postable Ground Water Condition and
Protection Act, April 2011, Table 7 Genetics Standards (SCI) for Saliner Soils in a Non-Postable Ground Water Condition and
Protection Act, April 2011, Table 7 Genetics Standards (SCI) for Saliner Soils in a Non-Postable Ground Water Condition and
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SCI)
Protection Act, April 2011, Table 7 Genetics Standards (SC

Ontain Ministry of Environment, Conservation and Parks (MCP), 5:0f. Groundwater and Sediment Standards for use under Part XV.1 of the Environmental 2 Protection Act, April 2011, Table 3 Size Condition Standards (SCI) in a Non-Potable Ground Water Condition and Parkshot/Besidential/Institutional Property Use (powers texture) (obli)

(come wounted 50%).

(d)D. Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

No 10 Value

Parameter not snakeed

in big:

Metric below ground stories,

indicates coll exceedance of MECP Table 7 SCS

indicates coll exceedance of MECP Table 3 SCS

## Table 2 - Analytical Results in Soil - PAH 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-80

			Provincial										San	noles									
Sample ID	UNITS	MECP Table 3 Residential <sup>2</sup>	MECP Table 7 Residential <sup>3</sup>	BH/MW-1 SS2	DUP 2 (BH/MW-1 SS2)	BH/MW-1 SS3	BH/MW-2 SS1	BH/MW-2 AS3	BH/MW-3 SS-1	BH/MW-4 SS-2	BH-6 SS1	BH-6 SS2	BH/MW-7 SS2A	,	BH/MW-8 AS3	BH/MW-9 AS1	BH/MW-9 SS2	BH/MW-10 AS1		DUP 1 (BH/MW-10 SS2)		BH/MW-11 SS2	DUP 3 (BH/MW-11 SS2
Lab ID				BH-1 SS2	DUP 2	BH-1 SS3	BH-2 SS1	BH-2 AS3	BH-3 SS-1	BH-4 SS-2	BH-6 SS1	BH-6 SS2	BH-7 SS2A	BH-7 SS2B	BH-8 AS3	BH-9 AS1	BH-9 SS2	BH-10 AS1	BH-10 SS2	DUP 1	BH-11 SS1	BH-11 SS2	DUP 3
Sampling Date				26-Oct-23	26-Oct-23	26-Oct-23	30-Oct-23	30-Oct-23	14-Dec-23	14-Dec-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	30-Oct-23	30-Oct-23	30-Oct-23
Sample Depth (mbgs)				0.9 to 1.5	0.9 to 1.5	1.7 to 2.3	0.2 to 0.8	1.7 to 2.3	U.1 to 1.2	1.2 to 1.5	U.1 to U./	0.9 to 1.3	0.9 to 1.2	1.2 to 1.5	1.5 to 2.1	U.1 to U.5	U.8 to Z.4	U.1 to U.7	0.9 to 1.5	0.9 to 1.5	U.1 to U.7	0.8 to 1.4	0.8 to 1.4
Polycyclic Aromatic Hydrocarbons																							
Acenaphthene	μg/g	7.9	7.9	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.18	<0.0050	0.012	0.069	<0.050	<0.050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	µg/g	0.15	0.15	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0073	<0.0050	<0.0050	<0.0050	<0.050	<0.050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	μg/g	0.67	0.67	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.64	<0.0050	0.16	0.22	0.091	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.016	<0.0050	<0.0050
Benzo(a)anthracene	μg/g	0.5	0.5	<0.0050	<0.0050	<0.0050	<0.0050	0.0070	<0.0050	<0.0050	0.91	<0.0050	0.45	0.58	0.24	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.041	<0.0050	0.0082
Berzo(a)pyrene	μg/g	0.3	0.3	<0.0050	<0.0050	<0.0050	<0.0050	0.0061	<0.0050	<0.0050	0.66	<0.0050	0.38	0.58	0.21	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.036	<0.0050	0.0070
Benzo(b)fluoranthene	μg/g	0.78	0.78	<0.0050	<0.0050	<0.0050	<0.0050	0.010	<0.0050	<0.0050	0.87	<0.0050	0.52	0.78	0.30	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.053	<0.0050	0.011
Benzo(g,h,i)perylene	μg/g	6.6	6.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.24	<0.0050	0.17	0.27	0.10	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.016	<0.0050	<0.0050
Benzo(k)fluoranthene	μg/g	0.78	0.78	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.31	<0.0050	0.20	0.30	0.12	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.019	<0.0050	<0.0050
Chrysene	μg/g	7	7	<0.0050	<0.0050	<0.0050	<0.0050	0.0064	<0.0050	<0.0050	0.73	<0.0050	0.37	0.46	0.19	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.038	<0.0050	0.0094
Dibenzo(a,h)anthracene	μg/g	0.1	0.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.099	<0.0050	0.061	0.093	<0.050	<0.050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	µg/g	0.69	0.69	< 0.0050	<0.0050	<0.0050	<0.0050	0.015	<0.0050	<0.0050	2.1	<0.0050	0.86	0.99	0.51	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.089	0.0055	0.018
Fluorene	μg/g	62	62	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.29	<0.0050	0.024	0.048	<0.050	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.007	<0.0050	<0.0050
Indeno[1,2,3,-cd]pyrene	µg/g	0.38	0.38	< 0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.29	<0.0050	0.19	0.31	0.12	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.015	<0.0050	< 0.0050
Methylnaphthalene,1-	μg/g	0.99	0.99	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.04	<0.0050	0.021	0.027	<0.050	<0.050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Methylnaphthalene,2-	µg/g	0.99	0.99	<0.0050	<0.0050	< 0.0050	<0.010(1)	<0.0050	< 0.0050	<0.0050	0.034	< 0.0050	0.022	0.026	<0.050	< 0.050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Methylnaphthalene 2-(1-)	µg/g	0.99	0.99	<0.0071	<0.0071	< 0.0071	< 0.011	<0.0071	< 0.0071	< 0.0071	0.075	< 0.0071	0.043	0.053	< 0.071	<0.071	< 0.0071	<0.071	< 0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Naphthalene	µg/g	0.6	0.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	< 0.0050	<0.0050	0.035	<0.0050	0.0078	0.016	<0.050	<0.050	0.0056	<0.050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	µg/g	6.2	6.2	<0.0050	<0.0050	0.0069	0.0071	0.0065	<0.0050	<0.0050	2.1	0.011	0.47	0.40	0.36	<0.050	0.010	<0.050	<0.0050	<0.0050	0.068	<0.0050	0.018
Pyrene	µg/g	78	78	<0.0050	<0.0050	< 0.0050	<0.0050	0.014	< 0.0050	<0.0050	1.6	< 0.0050	0.71	0.82	0.38	<0.050	<0.0050	<0.050	<0.0050	<0.0050	0.073	<0.0050	0.016

NOTES
Ontario Ministry of Environment, Communiscion and Parlis (MICH), Soll, Groundwater and Sudment Standards for use under Part XV of the Environmental Protection
1. Act, part 2011, Table? Cesenct: Sax Conditions Standards (SCS) by Stales Soll in a Non-Proteite Ground Water Condition and Parlishod/Recollection/Institutional Projection
Use (Court a tentural deals)
1. Communitaries and Sudment Standards for use under Part XV of the Environmental Protection

Use (course tentured soils)
Otatio Ministry of Environment, Conservation and Parks (MICF), Soil, Government and Sealment Standards for use under Part XV 1 of the Environmental Protection
2 Act, Not 2011, Table 3 Set Condition Standards (SCS) in a Non-Picible Ground Water Condition and Parkson/Residential/Institutional Property Use (course tentured soils)
All Soils describble results are shown in "(IPCI)" where RCI, represents the reporting detection limit.
No Not Value
Parameter not analyzed
Institute of Condition (IPCI) and IPCI Institute of Condition (IPCI

## Table 3 - Analytical Results in Soil - Inorganic Parameters 1822-1846 Bank Street, Ottawa, Ontario OTT-2002528-80

			Provincial										San	nples									
Sample ID	UNITS	MECP Table 3 Residential <sup>2</sup>	MECP Table 7 Residential <sup>1</sup>	BH/MW-1 SS2	DUP 2 (BH/MW-1 SS2)	BH/MW-1 SS3	BH/MW-2 SS1	BH/MW-2 AS3	BH/MW-3 SS-1	BH/MW-4 SS-2	BH-6 SS1	BH-6 SS2	BH/MW-7 SS2A	BH/MW-7 SS2B	BH/MW-8 AS3	BH/MW-9 AS1	BH/MW-9 SS2	BH/MW-10 AS1	BH/MW-10 SS2	DUP 1 (BH/MW-10 SS2)	BH/MW-11 SS1	BH/MW-11 SS2	DUP 3 (BH/MW-11 SS
Lab ID				BH-1 SS2	DUP 2	BH-1 SS3	BH-2 SS1	BH-2 AS3	BH-3 SS-1	BH-4 SS-2	BH-6 SS1	BH-6 SS2	BH-7 SS2A	BH-7 SS2B	BH-8 AS3	BH-9 AS1	BH-9 SS2	BH-10 AS1	BH-10 SS2	DUP 1	BH-11 SS1	BH-11 SS2	DUP 3
Sampling Date				26-Oct-23	26-Oct-23	26-Oct-23	30-Oct-23	30-Oct-23	14-Dec-23	14-Dec-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	27-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	26-Oct-23	20-Oct-23	30-Oct-23	30-Oct-23
Sample Depth (mbgs)				0.9 to 1.5	0.9 to 1.5	1.7 to 2.3	0.2 to 0.8	1.7 to 2.3	0.1 to 1.2	1.2 to 1.5	0.1 to 0.7	0.9 to 1.3	0.9 to 1.2	1.2 to 1.5	1.5 to 2.1	0.1 to 0.5	0.8 to 2.4	0.1 to 0.7	0.9 to 1.5	0.9 to 1.5	0.1 to 0.7	0.8 to 1.4	0.8 to 1.4
Metals																							
Antimony	µg/g	7.5	7.5	<0.20	<0.20	0.20	0.28	0.23	<0.20	<0.20	0.21	0.35	<0.20	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.22
Arsenic	µg/g	18	18	4.4	5.0	7.6	6.9	8.1	4.4	3.6	4.3	6.8	1.3	3.4	2.7	6.8	6.5	7.2	5.0	5.1	2.9	5.6	7.1
Barium	µg/g	390	390	66	71	100	170	110	64	50	73	290	31	140	290	6.7	140	27	45	55	32	51	65
Beryllium	µg/g	4	4	0.77	0.88	1.0	0.97	0.65	0.70	0.56	0.60	0.98	0.21	0.62	0.36	0.21	0.83	0.43	0.71	0.69	0.26	0.82	0.97
Boron (Total)	µg/g	120	120	<5.0	5.2	6.5	9.5	<5.0	6.7	7.6	5.6	7.6	<5.0	6.6	11	5.8	7.1	6.8	5.8	<5.0	5.4	5.6	8.3
Boron (Hot Water Soluble)	µg/g	1.5	1.5	0.092	0.11	0.16	0.45	0.096			0.20	0.21	0.14	0.26	0.56	0.23	0.14	0.19	0.16	0.11	0.10	0.11	0.21
Cadmium	µg/g	1.2	1.2	0.1	0.12	0.13	0.12	0.23	< 0.10	<0.10	0.14	0.30	<0.10	0.12	<0.10	0.23	0.17	0.36	0.10	0.11	< 0.10	<0.10	<0.10
Chromium (Total)	µg/g	160	160	25	28	32	32	23	23	23	21	30	11	24	18	8.7	28	14	24	24	12	26	30
Chromium (VI)	µg/g	8	8	0.22	0.23	<0.18	<0.18	<0.18			<0.18	<0.18	<0.18	< 0.18	<0.18	0.18	<0.18	<0.18	< 0.18	<0.18	<0.18	<0.18	0.22
Cobalt	µg/g	22	22	10	11	23	18	11	11	12	14	20	4.9	15	8.5	5.6	19	7.7	13	15	5.7	16	18
Copper	µg/g	140	140	23	27	40	40	19	24	19	22	43	11	25	17	11	40	15	28	34	14	30	38
Lead	µg/g	120	120	11	13	18	20	19	12	12	23	26	5.6	21	18	49	16	35	16	14	7.5	18	25
Mercury	µg/g	0.27	0.27	< 0.050	<0.050	0.067	<0.050	< 0.050	< 0.050	< 0.050	<0.050	<0.050	<0.050	< 0.050	<0.050	< 0.050	<0.050	< 0.050	<0.050	< 0.050	<0.050	< 0.050	<0.050
Molybdenum	µg/g	6.9	6.9	< 0.50	<0.50	1.0	1.2	1.6	0.51	<0.50	0.95	1.8	1.1	1.2	0.77	4.8	1.3	3.1	0.80	0.95	1.4	0.70	1.0
Nickel	µg/g	100	100	28	31	42	42	25	24	21	27	48	9.2	30	16	13	39	19	27	30	11	31	39
Selenium	µg/g	2.4	2.4	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	< 0.50	<0.50	<0.50	<0.50	< 0.50	<0.50	<0.50
Silver	µg/g	20	20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	<0.20	<0.20	< 0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	µg/g	1	1	0.14	0.16	0.19	0.16	0.16	0.15	0.12	0.17	0.20	0.12	0.14	0.18	0.15	0.16	0.22	0.12	0.12	0.18	0.16	0.20
Uranium	µg/g	23	23	0.61	0.77	0.74	0.98	0.66	0.61	0.77	0.6	0.74	0.49	1.1	0.41	0.57	0.68	0.61	0.83	0.71	0.58	0.66	0.65
Vanadium	µg/g	86	86	30	34	36	32	31	31	29	27	32	20	28	17	13	32	23	33	30	24	29	33
Zinc	µg/g	340	340	49	55	90	93	69	52	47	62	100	18	67	32	29	99	40	78	80	24	65	79
Inorganic Parameters																							
Sodium Adsorption Ratio	N/A	5	5	11	13	18	8.1	4.6			11	18	5.8	21	7.1	0.44	26	4.1	7.2	7.0	18	7.7	12
Oranida	ua/a	0.051	0.051	<0.01	d0.01	<0.01	d0.01	c0.01			40.01	<0.01	c0.01	<0.01	c0.01	20.01	<0.01	d0.01	<0.01	d0.01	20.01	c0.01	<0.01

Contain Ministry of Environment, Conservation and Paris (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental
Protection Act, Spel 2011, Table 7 Generics Size Condition Standards (ECS) of Shallow Soils in a Non-Postable Ground Water Condition and
Partial Ministry Societies Ministration of Ministry Societies Ministry Mi

Page 3 of 18

### Table 4 - Analytical Results in Groundwater - PHC and VOC 1822-1846 Bank Street, Ottawa, Ontario

	38-80

				Provincial					_		_									Samples					
Sample ID		UNITS	MECP Table 3 All Types of Property	MECP Table 7 Commercial <sup>2</sup>		BH/7	MW-1		вн/	MW-2		вн/1	MW-3			BH/N	fW-4		BH/MW-7			BH/F	MW-8		
ab ID		OMITS	Use <sup>2</sup>	Commercial	8H-1	BH/MW-1	BH/MW-1	BH/MW-1	BH/MW-1	BH/MW-1	BH-3	BH-3/MW	BH-3/MW	BH-3/MW	BH-4	BH-4/MW	BH-4/MW	BH-4/MW	BH-7	8H-8	8H-8/MW	DUP	BH-8/MW	DUP	BH-8/MV
ampling Date					30-Nov-23	25-Mar-24	20-Jun-24	24-Sep-24	20-Jun-24	24-Sep-24	21-Dec-23	15-Mar-24	20-Jun-24	24-Sep-24	21-Dec-23	15-Mar-24	20-Jun-24	24-Sep-24	3-Dec-23	6-Dec-23	15-Mar-24	15-Mar-24	20-Jun-24	20-Jun-24	24-Sep-2
creen Depth (mbgs)					1.5 to 4.6	1.5 to 4.6	1.5 to 4.6	1.5 to 4.6	11.1 to 14.1	11.1 to 14.1	2.6 to 5.6	2.6 to 5.6	2.6 to 5.6	2.6 to 5.6	2.4 to 5.4	2.4 to 5.4	2.6 to 5.6	2.6 to 5.6	10.3 to 13.7	0.7 to 2.0	0.7 to 2.0	0.7 to 2.0	0.7 to 2.0	0.7 to 2.0	0.7 to 2.0
letroleum Hydrocarbons																									
1 PHC (C6-C10)		HK/L	420	420	-25														<25	520	<25	-25	72		<25
2 PHC (C10-C16)		HR/L	150	150	<100	-		-	-						-	-			<100	<100	<100	<100	<100		<90
PHC (C16-C34)		HR/L	500	500	<200	-		-	-						-	-			<200	<200	<200	<200	<200		<200
PHC (C34-C50)		HR/L	500	500	<200	-		-	-						-	-			<200	<200	<200	<200	<200		<200
olatile Organic Compounds	•		•			•	•	•				•	•			•		•			•	•	•	•	
etone		ust/L	130000	100000	<10	<10	<10	81	36	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<16 (1)					
nzene		ust/L	44	0.5	< 0.17	<0.20	<0.20	<0.20	4.6	1.6	<0.20	<0.20	<0.20	<0.20	0.34	<0.20	<0.20	<0.20	0.41	42	0.70	0.69	4.3	3.8	2.2
omodichloromethane		ust/L	85000	67000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	40.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	40.50	<0.50			-		
omaform		HR/L	380	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0			-		
omomethane		HE/L	0.89	0.89	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			-		
rbon Tetrachloride		H8/L	0.79	0.2	<0.20	<0.19	<0.19	<0.19	<0.19	< 0.19	<0.19	<0.19	<0.19	<0.19	<0.19	< 0.19	<0.19	<0.19	<0.20	<0.20			-		
llorobenzene		H8/L	630	140	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20			-		
iloroform		µg/t	2.4	2	1.7	0.34	0.34	<0.20	<0.20	< 0.20	4.6	<0.20	<0.20	<0.20	1.1	<0.20	0.34	<0.20	2.3	<0.20	-	-			
promothloromethane		Hg/L	8200	65000	<0.50	<0.50	<0.50	<0.50	€0.50	<0.50	<0.50	<0.50	<0.50	<0.50	40.50	<0.50	<0.50	<0.50	<0.50	<0.50					
chlorodifluoromethane		Hg/L	4400	3500	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0					
Dichlorobenzene		Hg/L	4600	150	<0.50	<0.40	<0.40	<0.40	9.40	<0.40	40.40	<0.40	49.40	<0.40	40.40	<0.40	<0.40	<0.40	<0.50	<0.50					
Dichlorobenzene		H8/L	9600	7600	<0.50	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	40.40	<0.40	<0.50	<0.50		-			
Dichlorobenzene		H8/L	8	0.5	<0.50	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	40.40	<0.40	<0.50	<0.50		-			
L-Dichloroethane		H8/L	320	11	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		-			
2-Dichloroethane		H8/L	1.6	0.5	<0.50	<0.49	<0.49	<0.49	<0.49	<0.49	40.49	<0.49	<0.49	<0.49	<0.49	<0.49	40.49	<0.49	<0.50	<0.50		-			
1-Dichloroethylene		Hg/L	1.6	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
s-1,2-Dichloroethylene		Hg/L	1.6	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
uns-1,2-Dichloroethylene		Hg/L	1.6	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
2-Dichloropropane		Hg/L	16	0.58	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
s-1,3-Dichloropropylene		Hg/L	NV	NV	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30					
rans-1,3-Dichloropropylene		Hg/L	NV	NV	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40					
3-Dichloropropylene, Total		Hg/L	5.2	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
hylbenzene		HR/L	2300	54	<0.20	<0.20	<0.20	<0.20	<b>40.20</b>	<0.20	<0.20	<0.20	<0.20	<0.20	<b>40.20</b>	0.26	r0.20	<0.20	<0.20	57	1.3	1.2	6.5	5.8	0.61
hylene Dibromide		HE/L	0.25	0.2	<0.20	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.19	<0.20	<0.20	-	-	-	-	-
exane(n)		µg/L	51 470000		<1.0	<1.0	<1.0	<1.0	<1.0	4.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	41.0	<1.0		-	-	-	-	-
lethyl Ethyl Ketone lethyl Isobutyl Ketone		HK/L	470000 140000	21000 5200	<10	<10	<10	<10	72	<10	<10	<10	<10	<10	<10	<10	<10	40	<10	<10	-	-	-	-	-
ethyl Isobutyl Ketone ethyl-t-Butyl Ether		µg/L unt/L	140000	5200	40.50	<5.0 r0.50	40.50	<5.0 <0.50	-2.0 -5.0	43.0 40.50	40.50	43.0 40.50	43.0	<5.0 <0.50	45.0 40.50	43.0 40.50	<5.0 e0.50	40.50	43.0 40.50	40.50	-	-	-	-	<del>-</del>
lethyl-t-Butyl Ether lethylene Chloride		ust/L	190 610	15 26	<0.50 <2.0	<0.50 <2.0	<0.50 <2.0	<0.50 <2.0	<0.50 <0.50	<0.50 <2.0	40.50	<0.50 <2.0		-	-	-									
voene		HE/L	1300	43	10.50	10.40	10.40	<0.40	10.40	10.40	10.40	10.40	10.40	<0.40	40.40	10.40	40.40	10.40	40.50	<0.50					<del>                                     </del>
1.1.2-Tetrachioroethane		us/L	3.3	1.1	10.50	10.50	10.50	10.50	40.50	10.50	10.50	10.50	40.50	<0.50	40.50	10.50	10.50	10.50	40.50	10.50					<del></del>
1.2.2-Tetrachioroethane		us/L	3.2	0.5	10.50	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	10.40	40.50	10.50					<del>- i</del>
trachloroethylene		us/L	1.6	0.5	10.20	10.20	10.20	<0.20	40.20	10.20	3	0.47	0.47	3.8	40.20	10.20	40.20	<0.20	40.20	<0.20	-				
pene		us/L	18000	320	10.20	10.20	10.20	<0.20	40.20	10.20	<0.20	<0.20	40.20	<0.20	2.1	1.4	40.20	<0.20	0.81	1.0	<0.20	<0.20	0.3	0.3	40.2
1-Trichlorosthane		HR/L	640	23	-0.20	<0.20	<0.20	<0.20	40.20	<0.20	<0.20	<0.20	<0.20	<0.20	40.20	<0.20	40.20	<0.20	<0.20	<0.20		-	-	-	
,2-Trichloroethane		ust/L	4.7	0.5	10.50	<0.40	10.40	<0.40	10.40	<0.40	10.40	<0.40	40.40	<0.40	10.40	<0.40	10.40	<0.40	<0.50	<0.50		-			
chloroethylene		ust/L	1.6	0.5	<0.20	<0.20	<0.20	<0.20	40.20	<0.20	<0.20	<0.20	<0.20	<0.20	40.20	<0.20	40.20	<0.20	<0.20	<0.20		-			
chlorofluoromethane		ust/L	2500	2000	10.50	<0.50	40.50	<0.50	10.50	<0.50	<0.50	<0.50	40.50	<0.50	10.50	<0.50	10.50	<0.50	<0.50	<0.50		-			
wl Chloride		ust/L	0.5	0.5	<0.20	<0.20	<0.20	<0.20	40.20	<0.20	<0.20	<0.20	<0.20	<0.20	40.20	<0.20	40.20	<0.20	<0.20	<0.20		-			<u> </u>
lene, m.e.		ust/L	NV	NV	<0.20	<0.20	<0.20	0.33	40.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.44	1.1	40.20	<0.20	0.28	97	<0.20	<0.20	3.1	2.8	40.2
lene, o-		HR/L	NV	NV	<0.20	<0.20	<0.20	<0.20	<0.20	< 0.20	<0.20	<0.20	<0.20	<0.20	0.21	0.52	<0.20	<0.20	<0.20	2.2	2.5	2.3	<0.20	<0.20	<0.4
tal Xvienes		ust/L	4200	72	<0.20	<0.20	<0.20	0.33	40.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.66	1.7	40.20	<0.20	0.28	22	2.5	2.3	3.1	2.8	<0.4

Ontario Ministry of Envisorment, Conservation and Parks (MICP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 7 Generic Ste Condition Standards (SCS) for Shallow Soils in a Non-Potable Ground Water Condition All Types of Property Use (coarse-textured soils)

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Site Condition Standards (SCS) in a Non-Potable Ground Water Condition All Types of Property Use (coarse testured soil

ND (RDL) Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection lin

NV No Value

m bgs Metres below ground surface
Indicates soil exceedance of MECP Table 7.5

Indicates soil exceedance of MECP Table 7 SCS Indicates groundwater exceedance of MECP Table 3

# Table 4 - Analytical Results in Groundwater - PHC and VOC 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

OTT-23002538-80			Provincial										
Sample ID	UNITS	MECP Table 3 All Types of Property Use <sup>2</sup>	MECP Table 7 Commercial <sup>2</sup>	BH/MW-9			IW-10			BH/MW-12		Trip Blank	Field Blank
Lab ID		Use		8H-9	BH-10	DUP	BH/MW-10	BH/MW-10	BH-12	BH/MW-12	BH/MW-12	Trip Blank	Field Blank
Sampling Date				29-Nov-23	29-Nov-23	29-Nov-23	20-Jun-24	24-Sep-24	6-Dec-23	25-Mar-24	21-Jun-24	29-Nov-23	30-Nov-23
Screen Depth (mbgs)				0.9 to 2.2	1.0 to 2.5	1.0 to 2.5	1.0 to 2.5	1.0 to 2.5	11.0 to 14.0	11.0 to 14.0	11.0 to 14.0	N/A	N/A
Petroleum Hydrocarbans													
F1 PHC (C6-C10)	HE/L	420	420	-25	-25	<25			425			<25	-25
F2 PHC (C10-C16)	HE/L	150	150	<100	<100	<100			<100		-	<100	<100
F3 PHC (C16-C34)	HE/L	500	500	<200	<200	<200			<200		-	<200	<200
F4 PHC (C34-C50)	pg/t	500	500	<200	<200	<200			<200		-	<200	<200
Volatile Organic Compounds													
Acidone	HK/L	130000	100000	<10	<10	<10	-	-	87	30	1000	<10	<10
Sempene	ust/L	44	0.5	40.17	0.54	0.51	<0.20	<0.20	0.91	12	3.3	<0.17	< 0.17
Bromodichloromethane	HK/L	85000	67000	<0.50	<0.50	<0.50	-		< 0.50	<0.50	<0.50	<0.50	<0.50
tromoform	HK/L	380	5	<1.0	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0
tromomethane	HK/L	0.89	0.89	<0.50	<0.50	<0.50	-	-	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	HE/L	0.79	0.2	<0.20	<0.20	<0.20			<0.20	< 0.19	< 0.19	<0.20	<0.20
Chlorobenzene	HE/L	630	140	<0.20	<0.20	<0.20			<0.20	< 0.20	<0.20	<0.20	<0.20
Chloroform	HE/L	2.4	2	<0.20	<0.20	<0.20			1.6	< 0.20	<0.20	<0.20	<0.20
Dibromochloromethane	HE/L	8200	65000	<0.50	<0.50	<0.50			<0.50	< 0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	HE/L	4400	3500	,	<1.0	<1.0			<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	HE/L	4600	150	<0.50	<0.50	<0.50			<0.50	<0.40	<0.40	<0.50	<0.50
1,3-Dichloroberzene	pg/t	9600	7600	<0.50	<0.50	<0.50			<0.50	<0.40	<0.40	40.50	<0.50
1,4-Dichlorobenzene	HE/L		0.5	<0.50	<0.50	<0.50			<0.50	<0.40	<0.40	<0.50	<0.50
1,1-Dichloroethane	HE/L	320	11	<0.20	<0.20	<0.20			<0.20	< 0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	pg/t	1.6	0.5	<0.50	<0.50	<0.50			<0.50	<0.49	<0.49	40.50	<0.50
1,1-Dichloroethylene	Hg/L	1.6	0.5	<0.20	<0.20	<0.20			< 0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,2-Dichloroethylene	Hg/L	1.6	1.6	<0.50	<0.50	<0.50			<0.50	<0.50	1.6	40.50	<0.50
Trans-1,2-Dichloroethylene	pg/t	1.6	1.6	<0.50	<0.50	<0.50			<0.50	<0.50	<0.50	40.50	<0.50
1,2-Dichloropropane	Hg/L	16	0.58	<0.20	<0.20	<0.20			<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,3-Dichloropropylene	Hg/L	NV	NV	<0.30	<0.30	<0.30			<0.30	<0.30	<0.30	<0.30	<0.30
Trans-1,3-Dichloropropylene	Hg/L	NV	NV	<0.40	<0.40	<0.40			<0.40	<0.40	<0.40	40.40	<0.40
1,3-Dichloropropylene, Total	PR/L	5.2	0.5	<0.50	<0.50	<0.50			<0.50	<0.50	<0.50	40.50	<0.50
fthylbenzene	pg/t	2300	54	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.94	0.56	<0.20	<0.20
Éthylene Dibromide	µg/L	0.25	0.2	<0.20	<0.20	<0.20			<0.20	<0.19	<0.19	<0.20	<0.20
Hexane(n)	µg/L	51	5	<1.0	<1.0	<1.0			<1.0	5.0	5.9	<1.0	<1.0
Methyl Ethyl Ketone	µg/L	470000	21000	<10	<10	<10			31	6400	3300	<10	<10
Methyl Isobutyl Ketone	µg/L	140000	5200	<5.0	<5.0	<5.0	-		<5.0	<5.0	<2.0	<5.0	<5.0
Methyl-t-Butyl Ether Methylene Chloride	pg/L	190 610	15 26	40.50 42.0	<0.50 <2.0	40.50 42.0	-	-	<0.50 <2.0	<0.50 <2.0	<5.0 <0.50	<0.50 <2.0	<0.50 <2.0
Methylene Chloride Styrene	µg/L µg/L	1300	26 43	<2.0 40.50	<0.50	<2.0 <0.50		-	<0.50	<0.40	<0.50	<2.0 <0.50	<2.0 <0.50
1.1.1.2-Tetrachloroethane	HE/L	3.3	1.1	40.50	<0.50	40.50		- :	<0.50	10.50	<0.50	40.50	40.50 40.50
1,1,1,2-Tetrachioroethane 1.1.2.2-Tetrachioroethane	HE/L	3.3	0.5	40.50	40.50 40.50	40.50		- :	40.50	10.40	<0.40	40.50	40.50 40.50
1,1,2,2-Tetrachioroethane Tetrachioroethylene	HE/L	1.6	0.5	40.30	<0.20	40.50		<u> </u>	0.73	5.3	12.0	40.50	<0.50 <0.20
Toluene	us/L	18000	320	40.20	<0.20	40.20	<0.20	<0.20	1.5	19	5.1	40.20 40.20	<0.20
1.1.1-Trichloroethane	us/L	640	23	40.20	<0.20	40.20 40.20	40.20	10.20	<0.20	-0.20	<0.20	40.20 40.20	<0.20
1,1,1-Irichloroethane	HE/L	4.7	0.5	40.50	<0.50	40.50		<u> </u>	10.50	10.40	<0.40	40.50	<0.50
1,1,2-Inchloroethylene	us/L	1.6	0.5	40.30	<0.20	40.50		-	10.20	0.48	1.9	40.50	<0.50 <0.20
Trichlorofluoromethane	HE/L	2500	2000	40.50	<0.50	40.50		-	10.50	10.50	<0.50	40.50	<0.50
Viryl Chloride	HE/L	0.5	0.5	40.30	<0.20	40.50		<u> </u>	10.20	40.30	<0.20	40.50	<0.20
Kviene, m.p.	us/L	NV	NV	40.20	<0.20	40.20	<0.20	<0.20	0.65	9.8	5.6	40.20 40.20	<0.20
Kylene, o-	us/L	NV NV	NV NV	40.20	<0.20	40.20	<0.40	10.40	0.05	3.3	1.7	40.20 40.20	<0.20
kyrene, o- Total Xvienes	HE/L	4200	72	40.20 40.20	<0.20	40.20 40.20	40.40 40.40	10.40	0.96	13	7.3	40.20 40.20	40.20 40.20
NOTES:	HE/L	4200	- 72	·w.20	~0.20	~0.20	10.40	10.40	V.30	43	7.3	~U.20	10.20

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and S



Table 5 - Analytical Results in Groundwater - PAH 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

			Provincial					Samples				
Sample ID	UNITS	MECP Table 3 All Types of Property	MECP Table 7	BH/MW-1	BH/MW-7	BH/MW-8	BH/MW-9	BH/MW-10	DUP (BH/MW-10)	BH/MW-12	Trip Blank	Field Blank
Lab ID		Use <sup>2</sup>		BH-1	BH-7	BH-8	BH-9	BH-10	DUP	BH-12	Trip Blank	Field Blank
Sampling Date				30-Nov-23	6-Dec-23	6-Dec-23	29-Nov-23	29-Nov-23	29-Nov-23	6-Dec-23	29-Nov-23	30-Nov-23
Screen Depth (mbgs)				1.5 to 4.6	10.3 to 13.7	0.7 to 2.0	0.9 to 2.2	1.0 to 2.5	1.0 to 2.5	11.0 to 14.0	N/A	N/A
Polycylic Aromatic Hydrocarbons												
Acenaphthene	μg/L	600	17	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Acenaphthylene	μg/L	1.8	1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Anthracene	μg/L	2.4	1	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(a)anthracene	μg/L	4.7	1.8	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(a)pyrene	μg/L	0.81	0.81	< 0.0090	0.026	< 0.0090	<0.0090	< 0.0090	<0.0090	<0.0090	< 0.0090	< 0.0090
Benzo(b/j)fluoranthene	μg/L	0.75	0.75	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(g,h,i)perylene	μg/L	0.2	0.2	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Benzo(k)fluoranthene	μg/L	0.4	0.4	< 0.050	< 0.050	< 0.050	< 0.050	<0.050	< 0.050	<0.050	<0.050	< 0.050
Chrysene	μg/L	1	0.7	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Dibenzo(a,h)anthracene	μg/L	0.52	0.4	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Fluoranthene	μg/L	130	44	< 0.050	0.05	< 0.050	< 0.050	<0.050	< 0.050	<0.050	<0.050	< 0.050
Fluorene	μg/L	400	290	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Indeno(1,2,3-cd)pyrene	μg/L	0.2	0.2	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
1-Methylnaphthalene	μg/L	1800	1500	< 0.050	< 0.050	1.4	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
2-Methylnaphthalene	μg/L	1800	1500	< 0.050	< 0.050	0.96	< 0.050	<0.050	< 0.050	<0.050	<0.050	< 0.050
Methylnaphthalene, 2-(1-)	μg/L	1800	1500	< 0.071	< 0.071	2.4	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071	< 0.071
Naphthalene	μg/L	1400	7	< 0.050	< 0.050	4.4	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050
Phenanthrene	μg/L	580	380	< 0.030	0.053	0.045	< 0.030	< 0.030	< 0.030	0.11	< 0.030	< 0.030
Pyrene	μg/L	68	5.7	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 7 Generic Site Condition Standards (SCS) for Shallow Soils in a Non-Potable Ground Water Condition and Parkland/Residential/Institutional Property Use (coarse textured soils)

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Site Condition Standards (SCS) in a Non-Potable Ground Water Condition and Parkland/Residential/Institutional Property Use (coarse textured soils)

ND (RDL) Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.

NV No Value

Parameter not analyzed

m bgs Metres below ground surface

Indicates soil exceedance of MECP Table 7 SCS

Indicates groundwater exceedance of MECP Table 3 SCS



### Table 6 - Analytical Results in Groundwater - Metals 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

			Provincial					Samples				
Sample ID	UNITS	MECP Table 3 All Types of Property	MECP Table 7 Commercial <sup>1</sup>	BH/MW-1	BH/MW-7	BH/MW-8	BH/MW-9	BH/MW-10	DUP (BH/MW-10)	BH/MW-12	Trip Blank	Field Blan
Lab ID		Use <sup>2</sup>	commercial	BH-1	BH-7	BH-8	BH-9	BH-10	DUP	BH-12	Trip Blank	Field Blanl
Sampling Date				30-Nov-23	6-Dec-23	6-Dec-23	29-Nov-23	29-Nov-23	29-Nov-23	6-Dec-23	29-Nov-23	30-Nov-23
Screen Depth (mbgs)				1.5 to 4.6	10.3 to 13.7	0.7 to 2.0	0.9 to 2.2	1.0 to 2.5	1.0 to 2.5	11.0 to 14.0	N/A	N/A
Metals												
Antimony	μg/L	20000	16000	1.4	1.7	<0.50	0.55	0.56	< 0.50	1.5	< 0.50	< 0.50
Arsenic	μg/L	1900	1500	1.1	1.8	<1.0	<1.0	<1.0	<1.0	1.5	<1.0	<1.0
Barium	μg/L	29000	23000	1800	1800	95	89	150	140	220	<2.0	<2.0
Beryllium	μg/L	67	53	< 0.40	< 0.40	< 0.40	< 0.40	<0.40	< 0.40	< 0.40	< 0.40	< 0.40
Boron	μg/L	45000	36000	520	380	76	50	37	36	180	<10	<10
Cadmium	μg/L	2.7	2.1	< 0.090	< 0.090	<0.090	0.12	0.28	0.26	< 0.090	< 0.090	< 0.090
Chromium	μg/L	810	640	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cobalt	μg/L	140	52	2.5	< 0.50	0.53	2.4	5.9	5.5	0.78	< 0.50	< 0.50
Copper	μg/L	66	69	2.5	0.99	1.1	2.3	4.5	3.6	3.9	< 0.90	< 0.90
Lead	μg/L	87	20	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	0.55	< 0.50	< 0.50
Molybdenum	μg/L	9200	7300	11	14	10	1.6	9.7	9.0	36	< 0.50	< 0.50
Nickel	μg/L	490	390	6.3	1.7	1.4	6.2	10	9.8	3.2	<1.0	<1.0
Selenium	μg/L	63	50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Silver	μg/L	1.5	1.2	< 0.090	< 0.090	<0.090	< 0.090	0.093	< 0.090	< 0.090	0.098	< 0.090
Sodium	μg/L	2300000	1800000	820000	2300000	1300000	1100000	890000	880000	530000	<100	<100
Thallium	μg/L	510	400	0.059	<0.050	<0.050	< 0.050	0.078	0.07	<0.050	<0.050	< 0.050
Jranium	μg/L	420	330	2.9	2.4	1.7	1.8	3.4	3.3	1.9	<0.10	< 0.10
/anadium	μg/L	250	200	<0.50	0.59	< 0.50	0.53	0.86	0.58	0.88	< 0.50	< 0.50
Zinc	μg/L	1100	890	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	15	<5.0	<5.0

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 7 Generic Site Condition Standards (SCS) for Shallow 5

Ontario Ministry of Environment, Conservation and Parks (MECP), Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 2011, Table 3 Site Condition Standards (SCS) in a Non-Potable Gru

ND (RDL) Non-detectable results are shown as "ND (RDL)" where RDL represents the reporting detection limit.

NV No Value

Parameter not analyzed

m bgs Metres below ground surface

Indicates soil exceedance of MECP Table 7 SCS

Indicates groundwater exceedance of MECP Table 3 SCS

Table 7 - Relative Percent Differences - PHC and VOC in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 2	BH-1 SS2	RPD (%)	Alert Limit (%)
			26-Oct-2023	26-Oct-2023		
Petroleum Hydrocarbons					•	
F1 PHC (C6 - C10) - BTEX	ug/g dry	10	<10	<10	#REF!	60
F2 PHC (C10-C16)	ug/g dry	10	<10	<10	#REF!	60
F3 PHC (C16-C34)	ug/g dry	50	<50	<50	#REF!	60
F4 PHC (C34-C50)	ug/g dry	50	<50	<50	#REF!	60
Volatiles						
Acetone	ug/g dry	0.49	< 0.49	< 0.49	nc	100
Benzene	ug/g dry	0.0060	<0.0060	<0.0060	nc	100
Bromodichloromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Bromoform	ug/g dry	0.040	<0.040	<0.040	nc	100
Bromomethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Carbon Tetrachloride	ug/g dry	0.040	<0.040	<0.040	nc	100
Chlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
Chloroform	ug/g dry	0.040	<0.040	<0.040	nc	100
Dibromochloromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Dichlorodifluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,2-Dichlorobenzene	ug/g dry	0.040	< 0.040	< 0.040	nc	100
1,3-Dichlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,4-Dichlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1-Dichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,2-Dichloroethane	ug/g dry	0.049	< 0.049	< 0.049	nc	100
1,1-Dichloroethylene	ug/g dry	0.040	<0.040	<0.040	nc	100
cis-1,2-Dichloroethylene	ug/g dry	0.040	<0.040	<0.040	nc	100
trans-1,2-Dichloroethylene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,2-Dichloropropane	ug/g dry	0.040	<0.040	<0.040	nc	100
cis-1,3-Dichloropropylene	ug/g dry	0.030	< 0.030	< 0.030	nc	100
trans-1,3-Dichloropropylene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,3-Dichloropropene, total	ug/g dry	0.050	< 0.050	<0.050	nc	100
Ethylbenzene	ug/g dry	0.010	< 0.010	< 0.010	nc	100
Ethylene dibromide (dibromoethane, 1,2-	ug/g dry	0.040	<0.040	<0.040	nc	100
Hexane	ug/g dry	0.040	< 0.040	< 0.040	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.40	< 0.40	< 0.40	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.40	<0.40	<0.40	nc	100
Methyl tert-butyl ether	ug/g dry	0.04	<0.040	<0.040	nc	100
Methylene Chloride	ug/g dry	0.049	< 0.049	< 0.049	nc	100
Styrene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,1,2-Tetrachloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Tetrachloroethylene	ug/g dry	0.040	0.27	0.16	nc	100
Toluene	ug/g dry	0.020	<0.020	<0.020	nc	100
1,1,1-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,2-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Trichloroethylene	ug/g dry	0.010	< 0.010	<0.010	nc	100
Trichlorofluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Vinyl Chloride	ug/g dry	0.019	< 0.019	<0.019	nc	100
Xylenes, total	ug/g dry	0.020	<0.020	<0.020	nc	100

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL  $\,$ 

Table 7 - Relative Percent Differences - PHC and VOC in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 1	BH-10 SS2	RPD (%)	Alert Limit (%)
			26-Oct-2023	26-Oct-2023		
Petroleum Hydrocarbons						
F1 PHC (C6 - C10) - BTEX	ug/g dry	10	<10	<10	#REF!	60
F2 PHC (C10-C16)	ug/g dry	10	<10	<10	#REF!	60
F3 PHC (C16-C34)	ug/g dry	50	<50	<50	#REF!	60
F4 PHC (C34-C50)	ug/g dry	50	<50	<50	#REF!	60
Volatiles		•	•	•		•
Acetone	ug/g dry	0.49	< 0.49	< 0.49	nc	100
Benzene	ug/g dry	0.0060	< 0.0060	< 0.0060	nc	100
Bromodichloromethane	ug/g dry	0.040	<0.040	< 0.040	nc	100
Bromoform	ug/g dry	0.040	<0.040	< 0.040	nc	100
Bromomethane	ug/g dry	0.040	<0.040	< 0.040	nc	100
Carbon Tetrachloride	ug/g dry	0.040	<0.040	< 0.040	nc	100
Chlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
Chloroform	ug/g dry	0.040	<0.040	<0.040	nc	100
Dibromochloromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Dichlorodifluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,2-Dichlorobenzene	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,3-Dichlorobenzene	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,4-Dichlorobenzene	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,1-Dichloroethane	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,2-Dichloroethane	ug/g dry	0.049	< 0.049	< 0.049	nc	100
1,1-Dichloroethylene	ug/g dry	0.040	<0.040	< 0.040	nc	100
cis-1,2-Dichloroethylene	ug/g dry	0.040	<0.040	< 0.040	nc	100
trans-1,2-Dichloroethylene	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,2-Dichloropropane	ug/g dry	0.040	<0.040	< 0.040	nc	100
cis-1,3-Dichloropropylene	ug/g dry	0.030	<0.030	< 0.030	nc	100
trans-1,3-Dichloropropylene	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,3-Dichloropropene, total	ug/g dry	0.050	< 0.050	< 0.050	nc	100
Ethylbenzene	ug/g dry	0.010	< 0.010	< 0.010	nc	100
Ethylene dibromide (dibromoethane, 1,2-	ug/g dry	0.040	<0.040	<0.040	nc	100
Hexane	ug/g dry	0.040	<0.040	< 0.040	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.40	<0.40	<0.40	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.40	<0.40	<0.40	nc	100
Methyl tert-butyl ether	ug/g dry	0.04	<0.040	<0.040	nc	100
Methylene Chloride	ug/g dry	0.049	< 0.049	< 0.049	nc	100
Styrene	ug/g dry	0.040	< 0.040	< 0.040	nc	100
1,1,1,2-Tetrachloroethane	ug/g dry	0.040	<0.040	< 0.040	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Tetrachloroethylene	ug/g dry	0.040	<0.040	<0.040	nc	100
Toluene	ug/g dry	0.020	<0.020	<0.020	nc	100
1,1,1-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,2-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Trichloroethylene	ug/g dry	0.010	<0.010	<0.010	nc	100
Trichlorofluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Vinyl Chloride	ug/g dry	0.019	<0.019	<0.019	nc	100
Xylenes, total	ug/g dry	0.020	<0.020	< 0.020	nc	100

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 7 - Relative Percent Differences - PHC and VOC in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 3	BH-11 SS2	RPD (%)	Alert Limit (%)
			30-Oct-2023	30-Oct-2023		
Petroleum Hydrocarbons			•	•		•
F1 PHC (C6 - C10) - BTEX	ug/g dry	10	<10	<10	#REF!	60
F2 PHC (C10-C16)	ug/g dry	10	24	<10	#REF!	60
F3 PHC (C16-C34)	ug/g dry	50	57	<50	#REF!	60
F4 PHC (C34-C50)	ug/g dry	50	<50	<50	#REF!	60
Volatiles	•			•		•
Acetone	ug/g dry	0.49	< 0.49	< 0.49	nc	100
Benzene	ug/g dry	0.0060	< 0.0060	<0.0060	nc	100
Bromodichloromethane	ug/g dry	0.040	< 0.040	< 0.040	nc	100
Bromoform	ug/g dry	0.040	< 0.040	<0.040	nc	100
Bromomethane	ug/g dry	0.040	< 0.040	< 0.040	nc	100
Carbon Tetrachloride	ug/g dry	0.040	< 0.040	<0.040	nc	100
Chlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
Chloroform	ug/g dry	0.040	<0.040	<0.040	nc	100
Dibromochloromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Dichlorodifluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,2-Dichlorobenzene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,3-Dichlorobenzene	ug/g dry	0.040	< 0.040	< 0.040	nc	100
.4-Dichlorobenzene	ug/g dry	0.040	<0.040	< 0.040	nc	100
,1-Dichloroethane	ug/g dry	0.040	<0.040	< 0.040	nc	100
.2-Dichloroethane	ug/g dry	0.049	<0.049	< 0.049	nc	100
,1-Dichloroethylene	ug/g dry	0.040	< 0.040	<0.040	nc	100
cis-1,2-Dichloroethylene	ug/g dry	0.040	< 0.040	< 0.040	nc	100
rans-1,2-Dichloroethylene	ug/g dry	0.040	< 0.040	< 0.040	nc	100
1,2-Dichloropropane	ug/g dry	0.040	<0.040	<0.040	nc	100
is-1,3-Dichloropropylene	ug/g dry	0.030	< 0.030	< 0.030	nc	100
rans-1,3-Dichloropropylene	ug/g dry	0.040	<0.040	<0.040	nc	100
1,3-Dichloropropene, total	ug/g dry	0.050	< 0.050	< 0.050	nc	100
thylbenzene	ug/g dry	0.010	< 0.010	< 0.010	nc	100
thylene dibromide (dibromoethane, 1,2-	ug/g dry	0.040	< 0.040	<0.040	nc	100
lexane	ug/g dry	0.040	< 0.040	< 0.040	nc	100
Methyl Ethyl Ketone (2-Butanone)	ug/g dry	0.40	<0.40	<0.40	nc	100
Methyl Isobutyl Ketone	ug/g dry	0.40	<0.40	<0.40	nc	100
Methyl tert-butyl ether	ug/g dry	0.04	<0.040	<0.040	nc	100
Methylene Chloride	ug/g dry	0.049	<0.049	<0.049	nc	100
Styrene	ug/g dry	0.040	<0.040	<0.040	nc	100
I,1,1,2-Tetrachloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,2,2-Tetrachloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
etrachloroethylene	ug/g dry	0.040	<0.040	<0.040	nc	100
oluene	ug/g dry	0.020	<0.020	<0.020	nc	100
,1,1-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
1,1,2-Trichloroethane	ug/g dry	0.040	<0.040	<0.040	nc	100
Trichloroethylene	ug/g dry	0.010	<0.010	<0.010	nc	100
richlorofluoromethane	ug/g dry	0.040	<0.040	<0.040	nc	100
/inyl Chloride	ug/g dry	0.019	<0.019	<0.019	nc	100
Kylenes, total	ug/g dry	0.020	<0.020	<0.020	nc	100

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 8 - Relative Percent Differences - PAH in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 2	BH-1 SS2	RPD (%)	Alert Limit (%)
			26-Oct-2023	26-Oct-2023		
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Acenaphthylene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Anthracene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Benzo(a)anthracene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Benzo(a)pyrene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Benzo(b)fluoranthene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Benzo(g,h,i)perylene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Benzo(k)fluoranthene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Chrysene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Dibenzo(a,h)anthracene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Fluoranthene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Fluorene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Indeno(1,2,3,-cd)pyrene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Methylnaphthalene,1-	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Methylnaphthalene,2-	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Methylnaphthalene 2-(1-)	ug/g dry	0.0071	< 0.0071	< 0.0071	#REF!	80
Naphthalene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Phenanthrene	ug/g dry	0.0050	<0.0050	< 0.0050	#REF!	80
Pyrene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80

Parameter	Units	RDL	DUP 1	BH-10 SS2	RPD (%)	Alert Limit (%)
			26-Oct-2023	26-Oct-2023		
Polycyclic Aromatic Hydrocarbons				-		
Acenaphthene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Acenaphthylene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Anthracene	ug/g dry	0.005	< 0.0050	<0.0050	#REF!	80
Benzo(a)anthracene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Benzo(a)pyrene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Benzo(b)fluoranthene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Benzo(g,h,i)perylene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Benzo(k)fluoranthene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Chrysene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Dibenzo(a,h)anthracene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Fluoranthene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Fluorene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Indeno(1,2,3,-cd)pyrene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Methylnaphthalene,1-	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Methylnaphthalene,2-	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Methylnaphthalene 2-(1-)	ug/g dry	0.0071	< 0.0071	<0.0071	#REF!	80
Naphthalene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Phenanthrene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Pyrene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 8 - Relative Percent Differences - PAH in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 3	BH-11 SS2	RPD (%)	Alert Limit (%)
			30-Oct-2023	30-Oct-2023		
Polycyclic Aromatic Hydrocarbons	•					
Acenaphthene	ug/g dry	0.0050	< 0.0050	<0.0050	#REF!	80
Acenaphthylene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Anthracene	ug/g dry	0.005	<0.0050	<0.0050	#REF!	80
Benzo(a)anthracene	ug/g dry	0.0050	0.0082	< 0.0050	#REF!	80
Benzo(a)pyrene	ug/g dry	0.0050	0.007	<0.0050	#REF!	80
Benzo(b)fluoranthene	ug/g dry	0.0050	0.011	< 0.0050	#REF!	80
Benzo(g,h,i)perylene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Benzo(k)fluoranthene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Chrysene	ug/g dry	0.0050	0.0094	<0.0050	#REF!	80
Dibenzo(a,h)anthracene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Fluoranthene	ug/g dry	0.0050	0.018	0.0055	#REF!	80
Fluorene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Indeno(1,2,3,-cd)pyrene	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Methylnaphthalene,1-	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Methylnaphthalene,2-	ug/g dry	0.0050	< 0.0050	< 0.0050	#REF!	80
Methylnaphthalene 2-(1-)	ug/g dry	0.0071	< 0.0071	<0.0071	#REF!	80
Naphthalene	ug/g dry	0.0050	<0.0050	<0.0050	#REF!	80
Phenanthrene	ug/g dry	0.0050	0.018	<0.0050	#REF!	80
Pyrene	ug/g dry	0.0050	0.016	< 0.0050	#REF!	80

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 9 - Relative Percent Differences - Inorganics in Soil 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 2	BH-1 SS2	RPD (%)	Alert Limit (%)
			26-Oct-2023	26-Oct-2023		
Inorganic Parameters			-			
Antimony	ug/g dry	0.5	<0.20	<0.20	#REF!	60
Arsenic	ug/g dry	0.5	5	4.4	#REF!	60
Barium	ug/g dry	1	71	66	#REF!	60
Beryllium	ug/g dry	0.2	0.88	0.77	#REF!	60
Boron	ug/g dry	0.5	5.2	<5.0	#REF!	60
Boron (HWS)	ug/g dry	0.02	0.11	0.092	#REF!	60
Cadmium	ug/g dry	0.5	0.12	0.1	#REF!	60
Chromium	ug/g dry	1	28	25	#REF!	60
Chromium (VI)	ug/g dry	0.2	0.23	0.22	#REF!	60
Cobalt	ug/g dry	1	11	10	#REF!	60
Copper	ug/g dry	1	27	23	#REF!	60
Lead	ug/g dry	5	13	11	#REF!	60
Mercury	ug/g dry	0.005	< 0.050	<0.050	#REF!	60
Molybdenum	ug/g dry	1	<0.50	<0.50	#REF!	60
Nickel	ug/g dry	1	31	28	#REF!	60
Selenium	ug/g dry	0.5	<0.50	<0.50	#REF!	60
Silver	ug/g dry	0.2	<0.20	<0.20	#REF!	60
Fhallium	ug/g dry	0.1	0.16	0.14	#REF!	60
Vanadium	ug/g dry	1	0.77	0.61	#REF!	60
Zinc	ug/g dry	3	34	30	#REF!	60
Uranium	ug/g dry	0.1	55	49	#REF!	60

Parameter	Units	RDL	DUP 1	BH-10 SS2	RPD (%)	Alert Limit (%)	
			26-Oct-2023	26-Oct-2023			
Inorganic Parameters			-				
Antimony	ug/g dry	0.5	<0.20	<0.20	#REF!	60	
Arsenic	ug/g dry	0.5	5.1	5	#REF!	60	
Barium	ug/g dry	1	55	45	#REF!	60	
Beryllium	ug/g dry	0.2	0.69	0.71	#REF!	60	
Boron	ug/g dry	0.5	<5.0	5.8	#REF!	60	
Boron (HWS)	ug/g dry	0.02	0.11	0.16	#REF!	60	
Cadmium	ug/g dry	0.5	0.11	0.1	#REF!	60	
Chromium	ug/g dry	1	24	24	#REF!	60	
Chromium (VI)	ug/g dry	0.2	<0.18	<0.18	#REF!	60	
Cobalt	ug/g dry	1	15	13	#REF!	60	
Copper	ug/g dry	1	34	28	#REF!	60	
Lead	ug/g dry	5	14	16	#REF!	60	
Mercury	ug/g dry	0.005	<0.050	<0.050	#REF!	60	
Molybdenum	ug/g dry	1	0.95	0.8	#REF!	60	
Nickel	ug/g dry	1	30	27	#REF!	60	
Selenium	ug/g dry	0.5	<0.50	<0.50	#REF!	60	
Silver	ug/g dry	0.2	<0.20	<0.20	#REF!	60	
Thallium	ug/g dry	0.1	0.12	0.12	#REF!	60	
Vanadium	ug/g dry	1	0.71	0.83	#REF!	60	
Zinc	ug/g dry	3	30	33	#REF!	60	
Uranium	ug/g dry	0.1	80	78	#REF!	60	

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 9 - Relative Percent Differences - Inorganics in Soil

# 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP 3	BH-11 SS2	RPD (%)	Alert Limit (%)	
			30-Oct-2023	30-Oct-2023			
Inorganic Parameters							
Antimony	ug/g dry	0.5	0.22	<0.20	#REF!	60	
Arsenic	ug/g dry	0.5	7.1	5.6	#REF!	60	
Barium	ug/g dry	1	65	51	#REF!	60	
Beryllium	ug/g dry	0.2	0.97	0.82	#REF!	60	
Boron	ug/g dry	0.5	8.3	5.6	#REF!	60	
Boron (HWS)	ug/g dry	0.02	0.21	0.11	#REF!	60	
Cadmium	ug/g dry	0.5	<0.10	<0.10	#REF!	60	
Chromium	ug/g dry	1	30	26	#REF!	60	
Chromium (VI)	ug/g dry	0.2	0.22	<0.18	#REF!	60	
Cobalt	ug/g dry	1	18	16	#REF!	60	
Copper	ug/g dry	1	38	30	#REF!	60	
Lead	ug/g dry	5	25	18	#REF!	60	
Mercury	ug/g dry	0.005	< 0.050	<0.050	#REF!	60	
Molybdenum	ug/g dry	1	1	0.7	#REF!	60	
Nickel	ug/g dry	1	39	31	#REF!	60	
Selenium	ug/g dry	0.5	<0.50	<0.50	#REF!	60	
Silver	ug/g dry	0.2	<0.20	<0.20	#REF!	60	
Thallium	ug/g dry	0.1	0.2	0.16	#REF!	60	
Vanadium	ug/g dry	1	0.65	0.66	#REF!	60	
Zinc	ug/g dry	3	33	29	#REF!	60	
Uranium	ug/g dry	0.1	79	65	#REF!	60	

### NOTES:

Analysis by Bureau Veritas Laboratories

All results on dry weight basis; Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 10 - Relative Percent Differences - PHC and VOC in Groundwater 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP	BH-10	RPD (%)	Alert Limit (%)	
			29-Nov-2023	29-Nov-2023		1	
Petroleum Hydrocarbons							
F1 PHC (C6 - C10) - BTEX	μg/L	25	<25	<25	#REF!	60	
F2 PHC (C10-C16)	μg/L	100	<100	<100	#REF!	60	
F3 PHC (C16-C34)	μg/L	200	<200	<200	#REF!	60	
F4 PHC (C34-C50)	μg/L	200	<200	<200	#REF!	60	
Volatiles		•	•	•	•	•	
Acetone	μg/L	10	<10	<10	nc	60	
Benzene	μg/L		0.51	0.54	nc	60	
Bromodichloromethane	μg/L	0.50	<0.50	< 0.50	nc	60	
Bromoform	μg/L	1.0	<1.0	<1.0	nc	60	
Bromomethane	μg/L	0.50	<0.50	< 0.50	nc	60	
Carbon Tetrachloride	μg/L	0.20	<0.20	<0.20	nc	60	
Chlorobenzene	μg/L	0.20	<0.20	<0.20	nc	60	
Chloroform	μg/L	0.20	<0.20	<0.20	nc	60	
Dibromochloromethane	μg/L	0.50	<0.50	<0.50	nc	60	
Dichlorodifluoromethane	μg/L	1.0	<1.0	<1.0	nc	60	
1.2-Dichlorobenzene	μg/L	0.50	<0.50	<0.50	nc	60	
1.3-Dichlorobenzene	μg/L	0.50	<0.50	<0.50	nc	60	
1.4-Dichlorobenzene	μg/L	0.50	<0.50	<0.50	nc	60	
1.1-Dichloroethane	μg/L	0.20	<0.20	<0.20	nc	60	
1.2-Dichloroethane	μg/L	0.50	<0.50	<0.50	nc	60	
1.1-Dichloroethylene	μg/L	0.20	<0.20	<0.20	nc	60	
cis-1,2-Dichloroethylene	μg/L	0.50	<0.50	<0.50	nc	60	
trans-1,2-Dichloroethylene	μg/L	0.50	<0.50	<0.50	nc	60	
1.2-Dichloropropane	μg/L	0.20	<0.20	<0.20	nc	60	
cis-1,3-Dichloropropylene	μg/L	0.30	<0.30	<0.30	nc	60	
trans-1,3-Dichloropropylene	μg/L	0.40	<0.40	<0.40	nc	60	
1,3-Dichloropropene, total	μg/L	0.50	<0.50	<0.50	nc	60	
Ethylbenzene	μg/L	0.20	<0.20	<0.20	nc	60	
Ethylene dibromide (dibromoethane, 1,2-)	μg/L	0.20	<0.20	<0.20	nc	60	
Hexane	μg/L	1.0	<1.0	<1.0	nc	60	
Methyl Ethyl Ketone (2-Butanone)	μg/L	10	<10	<10	nc	60	
Methyl Isobutyl Ketone	μg/L	5.0	<5.0	<5.0	nc	60	
Methyl tert-butyl ether	μg/L	0.50	<0.50	<0.50	nc	60	
Methylene Chloride	μg/L	2.0	<2.0	<2.0	nc	60	
Styrene	μg/L	0.50	<0.50	<0.50	nc	60	
1.1.1.2-Tetrachloroethane	μg/L	0.50	<0.50	<0.50	nc	60	
1,1,2,2-Tetrachloroethane	μg/L	0.50	<0.50	<0.50	nc	60	
Tetrachloroethylene	μg/L μg/L	0.30	<0.20	<0.20	nc	60	
Toluene	μg/L	0.20	<0.20	<0.20	nc	60	
1.1.1-Trichloroethane	μg/L μg/L	0.20	<0.20	<0.20	nc	60	
1.1.2-Trichloroethane	μg/L	0.50	<0.50	<0.50	nc	60	
Trichloroethylene		0.30	<0.50	<0.20	nc	60	
Trichlorofluoromethane	μg/L μg/L	0.50	<0.50	<0.20	nc	60	
Vinyl Chloride		0.30	<0.50	<0.20	nc	60	
,	μg/L	0.20	<0.20	<0.20		60	
Xylenes, total	μg/L	0.20	<0.20	<0.20	nc	DU	

Analysis by Bureau Veritas Laboratories

Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Exceedances of alert limits are shown in bold

Parameter	Units	Units RDL DUP		BH-8/MW	RPD (%)	Alert Limit (%)
			15-Mar-2024	15-Mar-2024	1	
Petroleum Hydrocarbons	•					
F1 PHC (C6 - C10) - BTEX	μg/L	25	<25	<25	#REF!	60
F2 PHC (C10-C16)	μg/L	100	<100	<100	#REF!	60
F3 PHC (C16-C34)	μg/L	200	<200	<200	#REF!	60
F4 PHC (C34-C50)	μg/L	200	<200	<200	#REF!	60
Volatiles						
Benzene	μg/L		0.69	0.70	nc	60
Ethylbenzene	μg/L	0.20	1.2	1.3	nc	60
Toluene	μg/L	0.20	<0.20	<0.20	nc	60
Xvlenes, total	ug/L	0.20	2.3	2.5	nc	60

NOTES:

Table 10 - Relative Percent Differences - PHC and VOC in Groundwater 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Analysis by Bureau Veritas Laboratories

Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 11 - Relative Percent Differences - PAH in Groundwater 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP	BH-10	RPD (%)	Alert Limit (%)
			29-Nov-2023	29-Nov-2023		
Polycyclic Aromatic Hydrocarbons						
Acenaphthene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Acenaphthylene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Anthracene	μg/L	0.050	<0.050	< 0.050	#REF!	60
Benzo(a)anthracene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Benzo(a)pyrene	μg/L	0.0090	<0.0090	< 0.0090	#REF!	60
Benzo(b)fluoranthene	μg/L	0.050	<0.050	< 0.050	#REF!	60
Benzo(g,h,i)perylene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Benzo(k)fluoranthene	μg/L	0.050	<0.050	< 0.050	#REF!	60
Chrysene	μg/L	0.050	<0.050	<0.050	#REF!	60
Dibenzo(a,h)anthracene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Fluoranthene	μg/L	0.050	<0.050	< 0.050	#REF!	60
Fluorene	μg/L	0.050	< 0.050	< 0.050	#REF!	60
Indeno(1,2,3,-cd)pyrene	μg/L	0.050	<0.050	< 0.050	#REF!	60
Methylnaphthalene,1-	μg/L	0.050	<0.050	<0.050	#REF!	60
Methylnaphthalene,2-	μg/L	0.050	<0.050	< 0.050	#REF!	60
Methylnaphthalene 2-(1-)	μg/L	0.071	< 0.071	< 0.071	#REF!	60
Naphthalene	μg/L	0.050	<0.050	<0.050	#REF!	60
Phenanthrene	μg/L	0.030	< 0.030	< 0.030	#REF!	60
Pyrene	μg/L	0.050	< 0.050	< 0.050	#REF!	60

Analysis by Bureau Veritas Laboratories

Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

Table 12 - Relative Percent Differences - Inorganics in Groundwater 1822-1846 Bank Street, Ottawa, Ontario OTT-23002538-B0

Parameter	Units	RDL	DUP	BH-10	RPD (%)	Alert Limit (%)	
			29-Nov-2023	29-Nov-2023			
Inorganic Parameters							
Antimony	μg/L	0.50	<0.50	0.56	#REF!	40	
Arsenic	μg/L	1.0	<1.0	<1.0	#REF!	40	
Barium	μg/L	2.0	140	150	#REF!	40	
Beryllium	μg/L	0.40	<0.40	<0.40	#REF!	40	
Boron	μg/L	10	36	37	#REF!	40	
Cadmium	μg/L	0.090	0.26	0.28	#REF!	40	
Chromium	μg/L	5.0	<5.0	<5.0	#REF!	40	
Cobalt	μg/L	0.50	5.5	5.9	#REF!	40	
Copper	μg/L	0.90	3.6	4.5	#REF!	40	
Lead	μg/L	0.50	<0.50	<0.50	#REF!	40	
Molybdenum	μg/L	0.50	9	9.7	#REF!	40	
Nickel	μg/L	1.0	9.8	10	#REF!	40	
Selenium	μg/L	2.0	<2.0	<2.0	#REF!	40	
Silver	μg/L	0.090	<0.090	0.093	#REF!	40	
Sodium	μg/L	100	880000	890000	#REF!	40	
Thallium	μg/L	0.050	0.07	0.078	#REF!	40	
Jranium	μg/L	0.10	3.3	3.4	#REF!	40	
Vanadium	μg/L	0.50	0.58	0.86	#REF!	40	
Zinc	μg/L	5.0	<5.0	<5.0	#REF!	40	

Analysis by Bureau Veritas Laboratories

Non-detectable results are shown as "< (RDL)" where RDL represents the reporting detection limit.

- means "not analysed"

nc means "not calculable" - one (or both) of the results are <5x RDL

**EXP Services Inc.** 

Sun Life Assurance Company of Canda c/o BentallGreenOak (Canada) LP
Phase Two Environmental Site Assessment
1820-1846 Bank Street, Ottawa, Ontario
OTT-22002538-B0
September 30, 2024

**Appendix G: Laboratory Certificates of Analysis** 





Your Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Your C.O.C. #: 967688-01-01

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/14

Report #: R7955355 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3AZ816 Received: 2023/12/07, 11:01

Sample Matrix: Water # Samples Received: 3

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Methylnaphthalene Sum (1)	3	N/A	2023/12/12	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	3	N/A	2023/12/14		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2023/12/11	2023/12/12	CAM SOP-00316	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2023/12/11	2023/12/13	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS (1)	1	N/A	2023/12/12	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS (1)	2	N/A	2023/12/13	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	3	2023/12/11	2023/12/11	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	3	N/A	2023/12/14	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, MELCCFP, 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.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd, Mississauga, ON, L5N 2L8
- (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



Your Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Your C.O.C. #: 967688-01-01

## **Attention: Leah Wells**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/14

Report #: R7955355 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

### **BUREAU VERITAS JOB #: C3AZ816**

Received: 2023/12/07. 11:01

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** 



Bureau Veritas

14 Dec 2023 16:51:13

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



exp Services Inc

Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

# O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		XVI157	XVI158		XVI159		
Campling Data		2023/12/06	2023/12/06		2023/12/06		
Sampling Date		14:15	15:15		13:15		
COC Number		967688-01-01	967688-01-01		967688-01-01		
	UNITS	BH-8	BH-7	RDL	BH-12	RDL	QC Batch
Metals							
Dissolved Antimony (Sb)	ug/L	<0.50	1.7	0.50	1.5	0.50	9106197
Dissolved Arsenic (As)	ug/L	<1.0	1.8	1.0	1.5	1.0	9106197
Dissolved Barium (Ba)	ug/L	95	1800	2.0	220	2.0	9106197
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	0.40	<0.40	0.40	9106197
Dissolved Boron (B)	ug/L	76	380	10	180	10	9106197
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	9106197
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	5.0	<5.0	5.0	9106197
Dissolved Cobalt (Co)	ug/L	0.53	<0.50	0.50	0.78	0.50	9106197
Dissolved Copper (Cu)	ug/L	1.1	0.99	0.90	3.9	0.90	9106197
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	0.50	0.55	0.50	9106197
Dissolved Molybdenum (Mo)	ug/L	10	14	0.50	36	0.50	9106197
Dissolved Nickel (Ni)	ug/L	1.4	1.7	1.0	3.2	1.0	9106197
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	2.0	<2.0	2.0	9106197
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.090	<0.090	0.090	9106197
Dissolved Sodium (Na)	ug/L	1300000	2300000	500	530000	100	9106197
Dissolved Thallium (TI)	ug/L	<0.050	<0.050	0.050	<0.050	0.050	9106197
Dissolved Uranium (U)	ug/L	1.7	2.4	0.10	1.9	0.10	9106197
Dissolved Vanadium (V)	ug/L	<0.50	0.59	0.50	0.88	0.50	9106197
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	5.0	15	5.0	9106197
PDI - Panartable Detection Lie							

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



exp Services Inc

Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

## O.REG 153 PAHS (WATER)

Bureau Veritas ID		XVI157	XVI158	XVI159		
Sampling Date		2023/12/06	2023/12/06	2023/12/06		
		14:15	15:15	13:15		
COC Number		967688-01-01	967688-01-01	967688-01-01		
	UNITS	BH-8	BH-7	BH-12	RDL	QC Batch
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/L	2.4	<0.071	<0.071	0.071	9103410
Polyaromatic Hydrocarbons					•	
Acenaphthene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Anthracene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Benzo(a)pyrene	ug/L	<0.0090	0.026	<0.0090	0.0090	9104367
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Chrysene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Fluoranthene	ug/L	<0.050	0.050	<0.050	0.050	9104367
Fluorene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
1-Methylnaphthalene	ug/L	1.4	<0.050	<0.050	0.050	9104367
2-Methylnaphthalene	ug/L	0.96	<0.050	<0.050	0.050	9104367
Naphthalene	ug/L	4.4	<0.050	<0.050	0.050	9104367
Phenanthrene	ug/L	0.045	0.053	0.11	0.030	9104367
Pyrene	ug/L	<0.050	<0.050	<0.050	0.050	9104367
Surrogate Recovery (%)	•					
D10-Anthracene	%	99	90	94		9104367
D14-Terphenyl (FS)	%	83	42 (1)	48 (1)		9104367
D8-Acenaphthylene	%	94	94	93		9104367

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

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



Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

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

Bureau Veritas ID		XVI157		XVI158	XVI159		
Campling Data		2023/12/06		2023/12/06	2023/12/06		
Sampling Date		14:15		15:15	13:15		
COC Number		967688-01-01		967688-01-01	967688-01-01		
	UNITS	BH-8	RDL	BH-7	BH-12	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9103411
Volatile Organics	•						
Acetone (2-Propanone)	ug/L	<16 (1)	16	<10	87	10	9106499
Benzene	ug/L	42	0.17	0.41	0.91	0.17	9106499
Bromodichloromethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Bromoform	ug/L	<1.0	1.0	<1.0	<1.0	1.0	9106499
Bromomethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Carbon Tetrachloride	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
Chlorobenzene	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
Chloroform	ug/L	<0.20	0.20	2.3	1.6	0.20	9106499
Dibromochloromethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,2-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,3-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,4-Dichlorobenzene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	<1.0	<1.0	1.0	9106499
1,1-Dichloroethane	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
1,2-Dichloroethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,1-Dichloroethylene	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,2-Dichloropropane	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	<0.30	<0.30	0.30	9106499
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	<0.40	<0.40	0.40	9106499
Ethylbenzene	ug/L	57	0.20	<0.20	<0.20	0.20	9106499
Ethylene Dibromide	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
Hexane	ug/L	21	1.0	<1.0	<1.0	1.0	9106499
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	2.4	<2.0	2.0	9106499
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	<10	31	10	9106499
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	<5.0	<5.0	5.0	9106499
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Styrene	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
	•	•		•			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Detection limit was raised due to matrix interference.



Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

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

Bureau Veritas ID		XVI157		XVI158	XVI159		
Sampling Date		2023/12/06		2023/12/06	2023/12/06		
Sampling Date		14:15		15:15	13:15		
COC Number		967688-01-01		967688-01-01	967688-01-01		
	UNITS	BH-8	RDL	BH-7	BH-12	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	0.20	<0.20	0.73	0.20	9106499
Toluene	ug/L	1.0	0.20	0.81	1.5	0.20	9106499
1,1,1-Trichloroethane	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
1,1,2-Trichloroethane	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Trichloroethylene	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	<0.50	<0.50	0.50	9106499
Vinyl Chloride	ug/L	<0.20	0.20	<0.20	<0.20	0.20	9106499
p+m-Xylene	ug/L	97	0.20	0.28	0.65	0.20	9106499
o-Xylene	ug/L	2.2	0.20	<0.20	0.31	0.20	9106499
Total Xylenes	ug/L	99	0.20	0.28	0.96	0.20	9106499
F1 (C6-C10)	ug/L	720	25	<25	<25	25	9106499
F1 (C6-C10) - BTEX	ug/L	520	25	<25	<25	25	9106499
F2-F4 Hydrocarbons	•					•	
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	<100	<100	100	9104370
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	<200	<200	200	9104370
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	<200	<200	200	9104370
Reached Baseline at C50	ug/L	Yes		Yes	Yes		9104370
Surrogate Recovery (%)							
o-Terphenyl	%	84		103	90		9104370
4-Bromofluorobenzene	%	98		97	96		9106499
D4-1,2-Dichloroethane	%	98		99	98		9106499
D8-Toluene	%	100		98	97		9106499
RDL = Reportable Detection Limit	•		•			•	
QC Batch = Quality Control Batch							



Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

#### **TEST SUMMARY**

Bureau Veritas ID: XVI157

Shipped:

**Collected:** 2023/12/06

Sample ID: BH-8 Matrix: Water

**Received:** 2023/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9103410	N/A	2023/12/12	Automated Statchk
1,3-Dichloropropene Sum	CALC	9103411	N/A	2023/12/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9104370	2023/12/11	2023/12/12	(Kent) Maolin Li
Dissolved Metals by ICPMS	ICP/MS	9106197	N/A	2023/12/13	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9104367	2023/12/11	2023/12/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9106499	N/A	2023/12/14	Anna Gabrielyan

Collected: 2023/12/06 Shipped: Bureau Veritas ID: XVI158 Sample ID: BH-7

Matrix: Water

**Received:** 2023/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9103410	N/A	2023/12/12	Automated Statchk
1,3-Dichloropropene Sum	CALC	9103411	N/A	2023/12/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9104370	2023/12/11	2023/12/12	(Kent) Maolin Li
Dissolved Metals by ICPMS	ICP/MS	9106197	N/A	2023/12/13	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9104367	2023/12/11	2023/12/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9106499	N/A	2023/12/14	Anna Gabrielvan

Bureau Veritas ID: XVI159 Sample ID: BH-12 Matrix: Water **Collected:** 2023/12/06 Shipped:

**Received:** 2023/12/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9103410	N/A	2023/12/12	Automated Statchk
1,3-Dichloropropene Sum	CALC	9103411	N/A	2023/12/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9104370	2023/12/11	2023/12/13	(Kent) Maolin Li
Dissolved Metals by ICPMS	ICP/MS	9106197	N/A	2023/12/12	Nan Raykha
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9104367	2023/12/11	2023/12/11	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9106499	N/A	2023/12/14	Anna Gabrielyan



Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

#### **GENERAL COMMENTS**

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

Package 1	1.7°C
Package 2	1.3°C

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-B0
Site Location: 1822-1846 WALKELY

Sampler Initials: SA

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9104367	D10-Anthracene	2023/12/11	104	50 - 130	97	50 - 130	98	%		
9104367	D14-Terphenyl (FS)	2023/12/11	100	50 - 130	98	50 - 130	94	%		
9104367	D8-Acenaphthylene	2023/12/11	99	50 - 130	94	50 - 130	91	%		
9104370	o-Terphenyl	2023/12/12	91	60 - 130	105	60 - 130	89	%		
9106499	4-Bromofluorobenzene	2023/12/14	97	70 - 130	98	70 - 130	95	%		
9106499	D4-1,2-Dichloroethane	2023/12/14	100	70 - 130	98	70 - 130	98	%		
9106499	D8-Toluene	2023/12/14	101	70 - 130	102	70 - 130	99	%		
9104367	1-Methylnaphthalene	2023/12/11	101	50 - 130	96	50 - 130	<0.050	ug/L	4.7	30
9104367	2-Methylnaphthalene	2023/12/11	95	50 - 130	90	50 - 130	<0.050	ug/L	4.6	30
9104367	Acenaphthene	2023/12/11	100	50 - 130	93	50 - 130	<0.050	ug/L	4.9	30
9104367	Acenaphthylene	2023/12/11	100	50 - 130	92	50 - 130	<0.050	ug/L	4.3	30
9104367	Anthracene	2023/12/11	104	50 - 130	94	50 - 130	<0.050	ug/L	8.0	30
9104367	Benzo(a)anthracene	2023/12/11	105	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
9104367	Benzo(a)pyrene	2023/12/11	98	50 - 130	89	50 - 130	<0.0090	ug/L	NC	30
9104367	Benzo(b/j)fluoranthene	2023/12/11	102	50 - 130	91	50 - 130	<0.050	ug/L	NC	30
9104367	Benzo(g,h,i)perylene	2023/12/11	103	50 - 130	93	50 - 130	< 0.050	ug/L	NC	30
9104367	Benzo(k)fluoranthene	2023/12/11	96	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
9104367	Chrysene	2023/12/11	101	50 - 130	93	50 - 130	<0.050	ug/L	NC	30
9104367	Dibenzo(a,h)anthracene	2023/12/11	94	50 - 130	84	50 - 130	< 0.050	ug/L	NC	30
9104367	Fluoranthene	2023/12/11	104	50 - 130	96	50 - 130	<0.050	ug/L	4.4	30
9104367	Fluorene	2023/12/11	99	50 - 130	90	50 - 130	<0.050	ug/L	4.4	30
9104367	Indeno(1,2,3-cd)pyrene	2023/12/11	101	50 - 130	91	50 - 130	< 0.050	ug/L	NC	30
9104367	Naphthalene	2023/12/11	95	50 - 130	90	50 - 130	<0.050	ug/L	3.4	30
9104367	Phenanthrene	2023/12/11	99	50 - 130	91	50 - 130	<0.030	ug/L	3.1	30
9104367	Pyrene	2023/12/11	106	50 - 130	97	50 - 130	<0.050	ug/L	5.2	30
9104370	F2 (C10-C16 Hydrocarbons)	2023/12/13	90	60 - 130	101	60 - 130	<100	ug/L	6.3	30
9104370	F3 (C16-C34 Hydrocarbons)	2023/12/13	91	60 - 130	106	60 - 130	<200	ug/L	NC	30
9104370	F4 (C34-C50 Hydrocarbons)	2023/12/13	90	60 - 130	104	60 - 130	<200	ug/L	NC	30
9106197	Dissolved Antimony (Sb)	2023/12/12	114	80 - 120	108	80 - 120	<0.50	ug/L	NC	20
9106197	Dissolved Arsenic (As)	2023/12/12	99	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
9106197	Dissolved Barium (Ba)	2023/12/12	99	80 - 120	104	80 - 120	<2.0	ug/L	0.67	20
9106197	Dissolved Beryllium (Be)	2023/12/12	103	80 - 120	101	80 - 120	<0.40	ug/L	NC	20



exp Services Inc

Client Project #: OTT-23002538-B0
Site Location: 1822-1846 WALKELY

Sampler Initials: SA

			Matrix	Spike	SPIKED	BLANK	Method E	Blank	RPE	)
QC Batch	Parameter	Date	% Recovery QC Limits % Recovery QC Limits			Value	UNITS	Value (%)	QC Limits	
9106197	Dissolved Boron (B)	2023/12/12	91	80 - 120	97	80 - 120	<10	ug/L	2.8	20
9106197	Dissolved Cadmium (Cd)	2023/12/12	103	80 - 120	104	80 - 120	<0.090	ug/L	2.2	20
9106197	Dissolved Chromium (Cr)	2023/12/12	100	80 - 120	98	80 - 120	<5.0	ug/L	NC	20
9106197	Dissolved Cobalt (Co)	2023/12/12	96	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
9106197	Dissolved Copper (Cu)	2023/12/12	101	80 - 120	102	80 - 120	<0.90	ug/L	3.5	20
9106197	Dissolved Lead (Pb)	2023/12/12	91	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
9106197	Dissolved Molybdenum (Mo)	2023/12/12	112	80 - 120	109	80 - 120	<0.50	ug/L	NC	20
9106197	Dissolved Nickel (Ni)	2023/12/12	90	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
9106197	Dissolved Selenium (Se)	2023/12/12	96	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
9106197	Dissolved Silver (Ag)	2023/12/12	99	80 - 120	105	80 - 120	<0.090	ug/L	NC	20
9106197	Dissolved Sodium (Na)	2023/12/12	NC	80 - 120	98	80 - 120	<100	ug/L	4.5	20
9106197	Dissolved Thallium (TI)	2023/12/12	93	80 - 120	104	80 - 120	<0.050	ug/L	NC	20
9106197	Dissolved Uranium (U)	2023/12/12	92	80 - 120	100	80 - 120	<0.10	ug/L	3.8	20
9106197	Dissolved Vanadium (V)	2023/12/12	102	80 - 120	101	80 - 120	<0.50	ug/L	3.8	20
9106197	Dissolved Zinc (Zn)	2023/12/12	93	80 - 120	101	80 - 120	<5.0	ug/L	2.3	20
9106499	1,1,1,2-Tetrachloroethane	2023/12/14	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9106499	1,1,1-Trichloroethane	2023/12/14	99	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9106499	1,1,2,2-Tetrachloroethane	2023/12/14	105	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9106499	1,1,2-Trichloroethane	2023/12/14	91	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9106499	1,1-Dichloroethane	2023/12/14	107	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
9106499	1,1-Dichloroethylene	2023/12/14	102	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9106499	1,2-Dichlorobenzene	2023/12/14	96	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9106499	1,2-Dichloroethane	2023/12/14	93	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9106499	1,2-Dichloropropane	2023/12/14	104	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
9106499	1,3-Dichlorobenzene	2023/12/14	99	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9106499	1,4-Dichlorobenzene	2023/12/14	107	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
9106499	Acetone (2-Propanone)	2023/12/14	102	60 - 140	103	60 - 140	<10	ug/L	NC (1)	30
9106499	Benzene	2023/12/14	95	70 - 130	95	70 - 130	<0.17	ug/L	4.6	30
9106499	Bromodichloromethane	2023/12/14	103	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9106499	Bromoform	2023/12/14	86	70 - 130	85	70 - 130	<1.0	ug/L	NC	30
9106499	Bromomethane	2023/12/14	96	60 - 140	105	60 - 140	<0.50	ug/L	NC	30
9106499	Carbon Tetrachloride	2023/12/14	95	70 - 130	94	70 - 130	<0.20	ug/L	NC	30



exp Services Inc

Client Project #: OTT-23002538-B0
Site Location: 1822-1846 WALKELY

Sampler Initials: SA

			Matrix Spike SPIKED BLAN			BLANK	BLANK Method Blank			D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery QC Limits		Value	UNITS	Value (%)	QC Limits
9106499	Chlorobenzene	2023/12/14	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9106499	Chloroform	2023/12/14	101	70 - 130	102	70 - 130	<0.20	ug/L	2.9	30
9106499	cis-1,2-Dichloroethylene	2023/12/14	105	70 - 130	104	70 - 130	<0.50	ug/L	4.7	30
9106499	cis-1,3-Dichloropropene	2023/12/14	82	70 - 130	83	70 - 130	<0.30	ug/L	NC	30
9106499	Dibromochloromethane	2023/12/14	96	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9106499	Dichlorodifluoromethane (FREON 12)	2023/12/14	110	60 - 140	104	60 - 140	<1.0	ug/L	NC	30
9106499	Ethylbenzene	2023/12/14	90	70 - 130	91	70 - 130	<0.20	ug/L	0.48	30
9106499	Ethylene Dibromide	2023/12/14	101	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9106499	F1 (C6-C10) - BTEX	2023/12/14					<25	ug/L	9.9	30
9106499	F1 (C6-C10)	2023/12/14	96	60 - 140	97	60 - 140	<25	ug/L	6.2	30
9106499	Hexane	2023/12/14	99	70 - 130	97	70 - 130	<1.0	ug/L	NC	30
9106499	Methyl Ethyl Ketone (2-Butanone)	2023/12/14	103	60 - 140	101	60 - 140	<10	ug/L	NC	30
9106499	Methyl Isobutyl Ketone	2023/12/14	92	70 - 130	91	70 - 130	<5.0	ug/L	NC	30
9106499	Methyl t-butyl ether (MTBE)	2023/12/14	101	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9106499	Methylene Chloride(Dichloromethane)	2023/12/14	107	70 - 130	107	70 - 130	<2.0	ug/L	NC	30
9106499	o-Xylene	2023/12/14	82	70 - 130	82	70 - 130	<0.20	ug/L	3.3	30
9106499	p+m-Xylene	2023/12/14	93	70 - 130	92	70 - 130	<0.20	ug/L	1.4	30
9106499	Styrene	2023/12/14	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9106499	Tetrachloroethylene	2023/12/14	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9106499	Toluene	2023/12/14	91	70 - 130	92	70 - 130	<0.20	ug/L	0	30
9106499	Total Xylenes	2023/12/14					<0.20	ug/L	1.9	30
9106499	trans-1,2-Dichloroethylene	2023/12/14	100	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9106499	trans-1,3-Dichloropropene	2023/12/14	87	70 - 130	90	70 - 130	<0.40	ug/L	NC	30
9106499	Trichloroethylene	2023/12/14	100	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9106499	Trichlorofluoromethane (FREON 11)	2023/12/14	106	70 - 130	105	70 - 130	<0.50	ug/L	NC	30



Bureau Veritas Job #: C3AZ816 Report Date: 2023/12/14

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

exp Services Inc

Client Project #: OTT-23002538-B0

Site Location: 1822-1846 WALKELY

Sampler Initials: SA

			Matrix	Spike	SPIKED	BLANK	Method B	lank	RPI	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9106499	Vinyl Chloride	2023/12/14	114	70 - 130	111	70 - 130	<0.20	ug/L	15	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 (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 detection limit was raised due to matrix interference.



Client Project #: OTT-23002538-B0 Site Location: 1822-1846 WALKELY

Sampler Initials: SA

#### **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.

Maxxam Analytics Presence of Visible Particulate/Sediment CAM FCD-01013/5 C3A2816 Page 1 of 1 When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below **Bottle Types Organics** Hydrocarbons **Volatiles** Other Inorganics Pest/ Pest/ SVOC/ SVOC/ PCB PCB PAH PAH Dioxin F1 FI F1 F1 F2-F4 F2-F4 voc VOC VOC Metals Organic Organic Sample ID All Herb Herb ABN ABN F4G CrVI CN General (Diss.) 1 of 2 2 of 2 1 of 2 2 of 2 1 of 2 2 of 2 /Furan Vial 1 Vial 2 Vial 3 Vial 4 1 of 2 2 of 2 Vial 1 Vial 2 Vial 3 Vial 4 2 of 2 1 of 2 2 of 2 1 of 2 2 3 4 5 6 7 8 9 10 Except Dissolve Metals Comments: Legend: ALAM P Suspended Particulate Recorded By: (signature/print) TS Trace Settled Sediment (just covers bottom of container or less) Sediment greater than (>) Trace, but less than (<) 1 cm

Address   100-2550 Queensfew Drive	BUREAU VERITAS		eau Veritas D Campobello Road, M	fississauga, Ontario (	Janada L5N 21	L8 Tel (905) 817-57	00 Toll-íree 800-	563-6266 Fax:(5	905) 817-5	777 www.b	vna.com	Reco	el ved		ttaw		СН	AIN OF CI				
Company Name		INVOICE	E TO:				REPO	RT TO:						PROJEC	TINFORMA	TION:			HONT COME			
100-2550 Quents view   100-2550 Page   101-200-2550-80   101-200	Company Name:	#17498 exp Services	Inc		Company							Quotation	#:	C2032	28				NON1-2023-12-45	2		
Ottoms ON K2B 8H6  (913) 688-1699	Attention	TO SELECT A SECURITION OF A SECURITION OF A			Attention							P.O. #:				272					1111111111	The contract
(613) 883-1898   Face (613) 225-7337   Text   India	Address:	The second secon	v Drive		Address:				dr.			Project:				-	14 - (-)		2222		967	
September   Sept		Contraction of the state of the			_	CTTO	waish	1				Project Na	me:	186	1-18.	16 W	alcery				Project	Manager:
MOTE RESULATED CREATED PROVIDED WHITE CORT WHITE IN TENSING PORT HIGH AND CONSENSATION MUST BE SUBMITTED ON THIS BEEN ANALYSIS REQUISITED PREADE BE SPECIFIC.  Regulation 16.12(311)  Other Regulations  Special instructions  Special instruction		A TORONTO CONTROL AND CONTROL OF				In all our	II-@							-1 1		0 [ ]	1.7	_			Katherin	e Szozda
Regulation 15 (2011)   The limit   County   Coun									_								UNO 12		1000	Time (VAT) F		
Table 1	DESCRIPTION OF STREET	CVICTOR OF THE PARTY OF THE PAR	The state of the s	AND REAL PROPERTY.	HUMAN C ER CHAIN		LATTING AND A	cle):	4		ANA			(PLEASE B	SE SPECIFIC				Please provide ad Standard) TAT:	vance notice for		
Shriph datacol label   Sharpel (occident) (shriphicten)   Date Sharpel   Name   O   O   O   O   O   O   O   O   O	Table 1 Table 2 Table 3	R.siPark Medium/Fine	CCME Reg 558. PWQO	Sanitary Sewer Bylaw Storm Sewer Bylaw unicipality Reg 406 Table	w	Specialii	SIGCIONS	Filtered (please c./	3 VOCs by HS & F1-F-	3 PAHs	als Anrigsis by ICPMS	SX,FI, NOC,	巴土	. 5				Standard TA Please note days - conta  Job Specif Date Require	T = 5-7 Working days for Standard TAT for certain ct your Project Manager I fic Rush TA1 (If applies ed:	most tests tests such as E for details	nission)	urans are > 5
Simple distriction   Date Sampled   Name   O   O   O   O   O   O   O   O   O		Include Criteria on C	Certificate of Analy	rsis (Y/N)?				ie S	91 2	6 6	Net	FI						Rush Confir	mation Number,	10	all lab for #)	
2 RH-7 RH-7 RH-7 RH-12 LISPA S  2 RH-12 RH-12 LISPA S  3 ISPA S  5 ISPA S  6	Sample				te Sampled	Time Sampled	Matrix	ш.	O Re	O Re	Total	mo	114	_			-	# of Bottles		Comm	ents	
2 13 H-12 BH-12 Luspm J 5  6	1 2 1	- 7	BH-8	D20	16/23	W. 15 Pm	Gw	J				J	V	V				5				
1	2 0	4-7	RH-7			2 15 pm						J	J	J				5				
	BI	1-15	BH-12		V	LISPM		1				V	J	J	4	1		5		-		
															-	-	-				-	1
	-														-	$\dashv$	_					
	1												-		-	-	-			3.		*
								-							-	-	-					
																-		-				
		RELINOUISHED BY: (Signatur	re/Print)	Date: (YY/MM/DI	D) Tir	ne l	RECEIVED	BY: (Signature/F	Print)	L	Date: (YY/	WM/DD)	Ti	me	# jars us	ed and	1 Ce	Labor	atory Use Only		_	
Collino Saluri Collino Collino Description Collino Saluri Collino					200	-	A	N.					-	TALAS	not sub	mitted		e Tempera	sture (°C) on Recei	Custody S	eal Yes	s 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  White: Byreau Veritas'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS	J					Achi	the ?	Bieker	war	- 2	023/1	2/08	108	:41	SENT IS					Intact		V-II Cli-

Bureau Veritas Canada (2018) Inc.

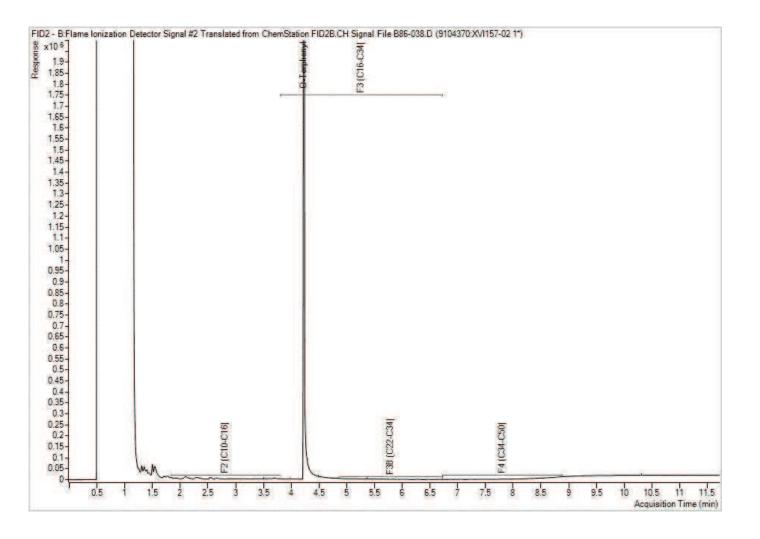
Bureau Veritas Job #: C3AZ816 Report Date: 2023/12/14 Bureau Veritas Sample: XVI157

exp Services Inc

Client Project #: OTT-23002538-B0 Project name: 1822-1846 WALKELY

Client ID: BH-8

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



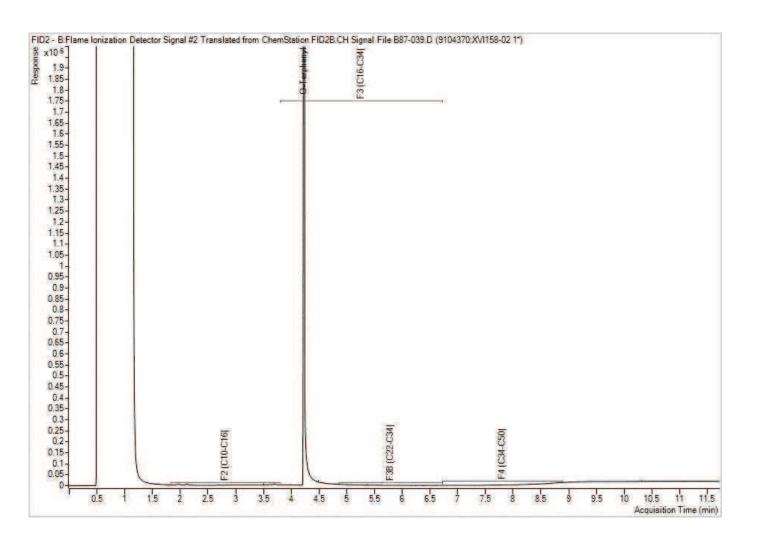
Bureau Veritas Job #: C3AZ816 Report Date: 2023/12/14 Bureau Veritas Sample: XVI158

exp Services Inc

Client Project #: OTT-23002538-B0 Project name: 1822-1846 WALKELY

Client ID: BH-7

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



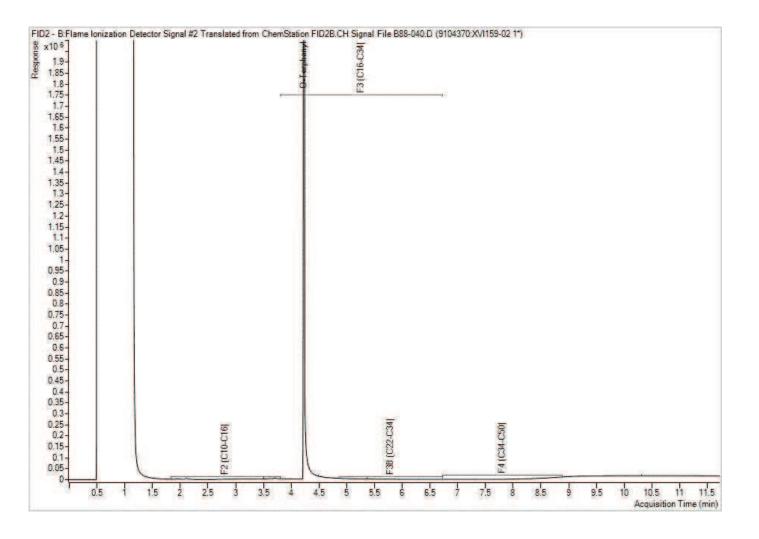
Bureau Veritas Job #: C3AZ816 Report Date: 2023/12/14 Bureau Veritas Sample: XVI159

exp Services Inc

Client Project #: OTT-23002538-B0 Project name: 1822-1846 WALKELY

Client ID: BH-12

Petroleum Hydrocarbons F2-F4 in Water Chromatogram





Your Project #: OTT-23002538-B0 Your C.O.C. #: 968694-01-01

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/22

Report #: R7966463 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3BJ388 Received: 2023/12/15, 08:42

Sample Matrix: Soil # Samples Received: 2

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Methylnaphthalene Sum (1)	2	N/A	2023/12/20	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	2	N/A	2023/12/20		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Soil (1, 2)	2	2023/12/20	2023/12/20	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS (1)	2	2023/12/21	2023/12/21	CAM SOP-00447	EPA 6020B m
Moisture (1)	2	N/A	2023/12/19	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	2	2023/12/19	2023/12/20	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	2	N/A	2023/12/20	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, MELCCFP, 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.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (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



Your Project #: OTT-23002538-B0 Your C.O.C. #: 968694-01-01

#### **Attention: Leah Wells**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/22

Report #: R7966463 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

# BUREAU VERITAS JOB #: C3BJ388

Received: 2023/12/15, 08:42

reported using validated cold solvent extraction instead of Soxhlet extraction.

**Encryption Key** 



Bureau Veritas
22 Dec 2023 10:08:31

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager

Email: Katherine. Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-B0

Sampler Initials: MR

## O.REG 153 PAHS (SOIL)

Bureau Veritas ID			XXI341	XXI342		
Campling Data			2023/12/14	2023/12/14		
Sampling Date			10:15	14:27		
COC Number			968694-01-01	968694-01-01		
	UNITS	Criteria	BH4-SS2	BH3-SS1	RDL	QC Batch
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/g	76	<0.0071	<0.0071	0.0071	9117401
Polyaromatic Hydrocarbons	•			•		
Acenaphthene	ug/g	96	<0.0050	<0.0050	0.0050	9121354
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	0.0050	9121354
Anthracene	ug/g	0.67	<0.0050	<0.0050	0.0050	9121354
Benzo(a)anthracene	ug/g	0.96	<0.0050	<0.0050	0.0050	9121354
Benzo(a)pyrene	ug/g	0.3	<0.0050	<0.0050	0.0050	9121354
Benzo(b/j)fluoranthene	ug/g	0.96	<0.0050	<0.0050	0.0050	9121354
Benzo(g,h,i)perylene	ug/g	9.6	<0.0050	<0.0050	0.0050	9121354
Benzo(k)fluoranthene	ug/g	0.96	<0.0050	<0.0050	0.0050	9121354
Chrysene	ug/g	9.6	<0.0050	<0.0050	0.0050	9121354
Dibenzo(a,h)anthracene	ug/g	0.1	<0.0050	<0.0050	0.0050	9121354
Fluoranthene	ug/g	9.6	<0.0050	<0.0050	0.0050	9121354
Fluorene	ug/g	62	<0.0050	<0.0050	0.0050	9121354
Indeno(1,2,3-cd)pyrene	ug/g	0.76	<0.0050	<0.0050	0.0050	9121354
1-Methylnaphthalene	ug/g	76	<0.0050	<0.0050	0.0050	9121354
2-Methylnaphthalene	ug/g	76	<0.0050	<0.0050	0.0050	9121354
Naphthalene	ug/g	9.6	<0.0050	<0.0050	0.0050	9121354
Phenanthrene	ug/g	12	<0.0050	<0.0050	0.0050	9121354
Pyrene	ug/g	96	<0.0050	<0.0050	0.0050	9121354
Surrogate Recovery (%)			-			
D10-Anthracene	%	-	113	107		9121354
D14-Terphenyl (FS)	%	-	110	104		9121354
D8-Acenaphthylene	%	-	102	97		9121354
DDI Departable Detection		l		1	<u> </u>	

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



Client Project #: OTT-23002538-B0

Sampler Initials: MR

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

Bureau Veritas ID Sampling Date COC Number			XXI341 2023/12/14	XXI342 2023/12/14		
			2023/12/14	2023/12/14		
COC Number			10:15	14:27		
			968694-01-01	968694-01-01		
	UNITS	Criteria	BH4-SS2	BH3-SS1	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.18	<0.050	<0.050	0.050	9117399
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	0.49	9120188
Benzene	ug/g	0.32	<0.0060	<0.0060	0.0060	9120188
Bromodichloromethane	ug/g	18	<0.040	<0.040	0.040	9120188
Bromoform	ug/g	0.61	<0.040	<0.040	0.040	9120188
Bromomethane	ug/g	0.05	<0.040	<0.040	0.040	9120188
Carbon Tetrachloride	ug/g	0.21	<0.040	<0.040	0.040	9120188
Chlorobenzene	ug/g	2.4	<0.040	<0.040	0.040	9120188
Chloroform	ug/g	0.47	<0.040	<0.040	0.040	9120188
Dibromochloromethane	ug/g	13	<0.040	<0.040	0.040	9120188
1,2-Dichlorobenzene	ug/g	6.8	<0.040	<0.040	0.040	9120188
1,3-Dichlorobenzene	ug/g	9.6	<0.040	<0.040	0.040	9120188
1,4-Dichlorobenzene	ug/g	0.2	<0.040	<0.040	0.040	9120188
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	0.040	9120188
1,1-Dichloroethane	ug/g	17	<0.040	<0.040	0.040	9120188
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	0.049	9120188
1,1-Dichloroethylene	ug/g	0.064	<0.040	<0.040	0.040	9120188
cis-1,2-Dichloroethylene	ug/g	55	<0.040	<0.040	0.040	9120188
trans-1,2-Dichloroethylene	ug/g	1.3	<0.040	<0.040	0.040	9120188
1,2-Dichloropropane	ug/g	0.16	<0.040	<0.040	0.040	9120188
cis-1,3-Dichloropropene	ug/g	0.18	<0.030	<0.030	0.030	9120188
trans-1,3-Dichloropropene	ug/g	0.18	<0.040	<0.040	0.040	9120188
Ethylbenzene	ug/g	9.5	<0.010	<0.010	0.010	9120188
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	0.040	9120188
Hexane	ug/g	46	<0.040	<0.040	0.040	9120188
Methylene Chloride(Dichloromethane)	ug/g	1.6	<0.049	<0.049	0.049	9120188
Methyl Ethyl Ketone (2-Butanone)	ug/g	70	<0.40	<0.40	0.40	9120188
Methyl Isobutyl Ketone	ug/g	31	<0.40	<0.40	0.40	9120188
Methyl t-butyl ether (MTBE)	ug/g	11	<0.040	<0.040	0.040	9120188
Styrene	ug/g	34	<0.040	<0.040	0.040	9120188

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



Client Project #: OTT-23002538-B0

Sampler Initials: MR

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

		XXI341	XXI342		
		2023/12/14	2023/12/14		
		10:15	14:27		
		968694-01-01	968694-01-01		
UNITS	Criteria	BH4-SS2	BH3-SS1	RDL	QC Batch
ug/g	0.087	<0.040	<0.040	0.040	9120188
ug/g	0.05	<0.040	<0.040	0.040	9120188
ug/g	4.5	0.89	1.7	0.040	9120188
ug/g	68	<0.020	<0.020	0.020	9120188
ug/g	6.1	<0.040	<0.040	0.040	9120188
ug/g	0.05	<0.040	<0.040	0.040	9120188
ug/g	0.91	<0.010	<0.010	0.010	9120188
ug/g	4	<0.040	<0.040	0.040	9120188
ug/g	0.032	<0.019	<0.019	0.019	9120188
ug/g	-	<0.020	<0.020	0.020	9120188
ug/g	-	<0.020	<0.020	0.020	9120188
ug/g	26	<0.020	<0.020	0.020	9120188
ug/g	55	<10	<10	10	9120188
ug/g	55	<10	<10	10	9120188
· •	•	•			•
ug/g	230	<10	<10	10	9122763
ug/g	1700	<50	<50	50	9122763
ug/g	3300	<50	<50	50	9122763
ug/g	-	Yes	Yes		9122763
%	-	94	105		9122763
%	-	98	99		9120188
%	-	99	89		9120188
%	-	91	90		9120188
	ug/g ug/g ug/g ug/g ug/g ug/g ug/g ug/g	ug/g         0.087           ug/g         0.05           ug/g         4.5           ug/g         68           ug/g         6.1           ug/g         0.05           ug/g         0.91           ug/g         4           ug/g         -           ug/g         -           ug/g         55           ug/g         55           ug/g         1700           ug/g         3300           ug/g         -           %         -           %         -           %         -           %         -           %         -           %         -	2023/12/14   10:15   968694-01-01   UNITS   Criteria   BH4-SS2   Ug/g   0.087   <0.040   Ug/g   0.05   <0.040   Ug/g   4.5   0.89   Ug/g   68   <0.020   Ug/g   6.1   <0.040   Ug/g   0.05   <0.040   Ug/g   0.91   <0.010   Ug/g   0.91   <0.010   Ug/g   0.032   <0.019   Ug/g   0.032   <0.019   Ug/g   - <0.020   Ug/g   - <0.020   Ug/g   55   <10   Ug/g   55   <10   Ug/g   1700   <50   Ug/g   3300   <50   Ug/g   - Yes   94   %   - 98   99	2023/12/14   10:15	2023/12/14

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



Client Project #: OTT-23002538-B0

Sampler Initials: MR

## **RESULTS OF ANALYSES OF SOIL**

Bureau Veritas ID		XXI341	XXI342		
Sampling Date		2023/12/14 10:15	2023/12/14 14:27		
COC Number		968694-01-01	968694-01-01		
	UNITS	BH4-SS2	BH3-SS1	RDL	QC Batch
Inorganics					
Inorganics Moisture	%	9.6	14	1.0	9121327



Client Project #: OTT-23002538-B0

Sampler Initials: MR

## **ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)**

						_
Bureau Veritas ID			XXI341	XXI342		
Sampling Date			2023/12/14	2023/12/14		
-			10:15	14:27		
COC Number			968694-01-01	968694-01-01		
	UNITS	Criteria	BH4-SS2	BH3-SS1	RDL	QC Batch
Metals						
Acid Extractable Aluminum (Al)	ug/g	-	12000	15000	50	9125513
Acid Extractable Antimony (Sb)	ug/g	40	<0.20	<0.20	0.20	9125513
Acid Extractable Arsenic (As)	ug/g	18	3.6	4.4	1.0	9125513
Acid Extractable Barium (Ba)	ug/g	670	50	64	0.50	9125513
Acid Extractable Beryllium (Be)	ug/g	8	0.56	0.70	0.20	9125513
Acid Extractable Bismuth (Bi)	ug/g	-	<1.0	<1.0	1.0	9125513
Acid Extractable Boron (B)	ug/g	120	7.6	6.7	5.0	9125513
Acid Extractable Cadmium (Cd)	ug/g	1.9	<0.10	<0.10	0.10	9125513
Acid Extractable Calcium (Ca)	ug/g	-	27000	8400	50	9125513
Acid Extractable Chromium (Cr)	ug/g	160	23	23	1.0	9125513
Acid Extractable Cobalt (Co)	ug/g	80	12	11	0.10	9125513
Acid Extractable Copper (Cu)	ug/g	230	19	24	0.50	9125513
Acid Extractable Iron (Fe)	ug/g	-	23000	26000	50	9125513
Acid Extractable Lead (Pb)	ug/g	120	12	12	1.0	9125513
Acid Extractable Magnesium (Mg)	ug/g	-	6200	6100	50	9125513
Acid Extractable Manganese (Mn)	ug/g	-	460	480	1.0	9125513
Acid Extractable Molybdenum (Mo)	ug/g	40	<0.50	0.51	0.50	9125513
Acid Extractable Nickel (Ni)	ug/g	270	21	24	0.50	9125513
Acid Extractable Phosphorus (P)	ug/g	-	850	710	50	9125513
Acid Extractable Potassium (K)	ug/g	-	1600	1700	200	9125513
Acid Extractable Selenium (Se)	ug/g	5.5	<0.50	<0.50	0.50	9125513
Acid Extractable Silver (Ag)	ug/g	40	<0.20	<0.20	0.20	9125513
Acid Extractable Sodium (Na)	ug/g	-	920	190	50	9125513
Acid Extractable Strontium (Sr)	ug/g	-	70	28	1.0	9125513
Acid Extractable Thallium (Tl)	ug/g	3.3	0.12	0.15	0.050	9125513
Acid Extractable Tin (Sn)	ug/g	-	<1.0	1.3	1.0	9125513
Acid Extractable Uranium (U)	ug/g	33	0.77	0.61	0.050	9125513
Acid Extractable Vanadium (V)	ug/g	86	29	31	5.0	9125513
Acid Extractable Zinc (Zn)	ug/g	340	47	52	5.0	9125513
Acid Extractable Mercury (Hg)	ug/g	3.9	<0.050	<0.050	0.050	9125513
DDI Danastalila Datastian Unit						

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



Matrix: Soil

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

### **TEST SUMMARY**

Bureau Veritas ID: XXI341 **Collected:** 2023/12/14 Sample ID: BH4-SS2

Shipped:

**Received:** 2023/12/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9117401	N/A	2023/12/20	Automated Statchk
1,3-Dichloropropene Sum	CALC	9117399	N/A	2023/12/20	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9122763	2023/12/20	2023/12/20	Anna Stuglik-Rolland
Acid Extractable Metals by ICPMS	ICP/MS	9125513	2023/12/21	2023/12/21	Thuy Linh Nguyen
Moisture	BAL	9121327	N/A	2023/12/19	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9121354	2023/12/19	2023/12/20	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9120188	N/A	2023/12/20	Cheng-Yu Sha

**Bureau Veritas ID:** XXI342 **Collected:** 2023/12/14 Sample ID: BH3-SS1

Shipped:

Matrix: Soil **Received:** 2023/12/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9117401	N/A	2023/12/20	Automated Statchk
1,3-Dichloropropene Sum	CALC	9117399	N/A	2023/12/20	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9122763	2023/12/20	2023/12/20	Anna Stuglik-Rolland
Acid Extractable Metals by ICPMS	ICP/MS	9125513	2023/12/21	2023/12/21	Thuy Linh Nguyen
Moisture	BAL	9121327	N/A	2023/12/19	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9121354	2023/12/19	2023/12/20	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9120188	N/A	2023/12/20	Cheng-Yu Sha



Client Project #: OTT-23002538-B0

Sampler Initials: MR

## **GENERAL COMMENTS**

Each te	emperature is the ave	erage of up to t	ree cooler temperatures taken at receipt
	Package 1	14.7°C	
		•	
Results	relate only to the it	ems tested.	



## **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9120188	4-Bromofluorobenzene	2023/12/20	100	60 - 140	98	60 - 140	98	%		
9120188	D10-o-Xylene	2023/12/20	97	60 - 130	98	60 - 130	87	%		
9120188	D4-1,2-Dichloroethane	2023/12/20	86	60 - 140	83	60 - 140	89	%		
9120188	D8-Toluene	2023/12/20	99	60 - 140	101	60 - 140	95	%		
9121354	D10-Anthracene	2023/12/20	102	50 - 130	108	50 - 130	112	%		
9121354	D14-Terphenyl (FS)	2023/12/20	99	50 - 130	105	50 - 130	105	%		
9121354	D8-Acenaphthylene	2023/12/20	93	50 - 130	104	50 - 130	100	%		
9122763	o-Terphenyl	2023/12/20	101	60 - 130	93	60 - 130	99	%		
9120188	1,1,1,2-Tetrachloroethane	2023/12/20	98	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9120188	1,1,1-Trichloroethane	2023/12/20	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9120188	1,1,2,2-Tetrachloroethane	2023/12/20	98	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9120188	1,1,2-Trichloroethane	2023/12/20	83	60 - 140	82	60 - 130	<0.040	ug/g	NC	50
9120188	1,1-Dichloroethane	2023/12/20	101	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9120188	1,1-Dichloroethylene	2023/12/20	92	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9120188	1,2-Dichlorobenzene	2023/12/20	94	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9120188	1,2-Dichloroethane	2023/12/20	79	60 - 140	79	60 - 130	<0.049	ug/g	NC	50
9120188	1,2-Dichloropropane	2023/12/20	94	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9120188	1,3-Dichlorobenzene	2023/12/20	98	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9120188	1,4-Dichlorobenzene	2023/12/20	105	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9120188	Acetone (2-Propanone)	2023/12/20	89	60 - 140	77	60 - 140	<0.49	ug/g	NC	50
9120188	Benzene	2023/12/20	91	60 - 140	94	60 - 130	<0.0060	ug/g	NC	50
9120188	Bromodichloromethane	2023/12/20	97	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9120188	Bromoform	2023/12/20	91	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9120188	Bromomethane	2023/12/20	100	60 - 140	97	60 - 140	<0.040	ug/g	NC	50
9120188	Carbon Tetrachloride	2023/12/20	89	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9120188	Chlorobenzene	2023/12/20	97	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9120188	Chloroform	2023/12/20	95	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9120188	cis-1,2-Dichloroethylene	2023/12/20	99	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9120188	cis-1,3-Dichloropropene	2023/12/20	98	60 - 140	96	60 - 130	<0.030	ug/g	NC	50
9120188	Dibromochloromethane	2023/12/20	95	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9120188	Dichlorodifluoromethane (FREON 12)	2023/12/20	88	60 - 140	96	60 - 140	<0.040	ug/g	NC	50
9120188	Ethylbenzene	2023/12/20	84	60 - 140	88	60 - 130	<0.010	ug/g	NC	50



exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9120188	Ethylene Dibromide	2023/12/20	97	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9120188	F1 (C6-C10) - BTEX	2023/12/20					<10	ug/g	NC	30
9120188	F1 (C6-C10)	2023/12/20	92	60 - 140	97	80 - 120	<10	ug/g	NC	30
9120188	Hexane	2023/12/20	96	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9120188	Methyl Ethyl Ketone (2-Butanone)	2023/12/20	87	60 - 140	79	60 - 140	<0.40	ug/g	NC	50
9120188	Methyl Isobutyl Ketone	2023/12/20	89	60 - 140	89	60 - 130	<0.40	ug/g	NC	50
9120188	Methyl t-butyl ether (MTBE)	2023/12/20	103	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9120188	Methylene Chloride(Dichloromethane)	2023/12/20	102	60 - 140	97	60 - 130	<0.049	ug/g	NC	50
9120188	o-Xylene	2023/12/20	78	60 - 140	81	60 - 130	<0.020	ug/g	NC	50
9120188	p+m-Xylene	2023/12/20	86	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
9120188	Styrene	2023/12/20	102	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9120188	Tetrachloroethylene	2023/12/20	95	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9120188	Toluene	2023/12/20	82	60 - 140	88	60 - 130	<0.020	ug/g	NC	50
9120188	Total Xylenes	2023/12/20					<0.020	ug/g	NC	50
9120188	trans-1,2-Dichloroethylene	2023/12/20	101	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9120188	trans-1,3-Dichloropropene	2023/12/20	96	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
9120188	Trichloroethylene	2023/12/20	101	60 - 140	110	60 - 130	<0.010	ug/g	NC	50
9120188	Trichlorofluoromethane (FREON 11)	2023/12/20	90	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9120188	Vinyl Chloride	2023/12/20	93	60 - 140	97	60 - 130	<0.019	ug/g	NC	50
9121327	Moisture	2023/12/19							0.63	20
9121354	1-Methylnaphthalene	2023/12/20	99	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9121354	2-Methylnaphthalene	2023/12/20	94	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9121354	Acenaphthene	2023/12/20	97	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9121354	Acenaphthylene	2023/12/20	94	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9121354	Anthracene	2023/12/20	97	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
9121354	Benzo(a)anthracene	2023/12/20	100	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9121354	Benzo(a)pyrene	2023/12/20	92	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9121354	Benzo(b/j)fluoranthene	2023/12/20	95	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9121354	Benzo(g,h,i)perylene	2023/12/20	98	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9121354	Benzo(k)fluoranthene	2023/12/20	86	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9121354	Chrysene	2023/12/20	98	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9121354	Dibenzo(a,h)anthracene	2023/12/20	90	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40



exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9121354	Fluoranthene	2023/12/20	98	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
9121354	Fluorene	2023/12/20	93	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
9121354	Indeno(1,2,3-cd)pyrene	2023/12/20	94	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
9121354	Naphthalene	2023/12/20	91	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9121354	Phenanthrene	2023/12/20	95	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9121354	Pyrene	2023/12/20	100	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9122763	F2 (C10-C16 Hydrocarbons)	2023/12/20	110	60 - 130	102	80 - 120	<10	ug/g	NC	30
9122763	F3 (C16-C34 Hydrocarbons)	2023/12/20	109	60 - 130	101	80 - 120	<50	ug/g	NC	30
9122763	F4 (C34-C50 Hydrocarbons)	2023/12/20	107	60 - 130	100	80 - 120	<50	ug/g	NC	30
9125513	Acid Extractable Aluminum (AI)	2023/12/21	NC	75 - 125	105	80 - 120	<50	ug/g		
9125513	Acid Extractable Antimony (Sb)	2023/12/21	86	75 - 125	94	80 - 120	<0.20	ug/g	NC	30
9125513	Acid Extractable Arsenic (As)	2023/12/21	87	75 - 125	96	80 - 120	<1.0	ug/g	9.2	30
9125513	Acid Extractable Barium (Ba)	2023/12/21	NC	75 - 125	96	80 - 120	<0.50	ug/g	1.3	30
9125513	Acid Extractable Beryllium (Be)	2023/12/21	89	75 - 125	93	80 - 120	<0.20	ug/g	NC	30
9125513	Acid Extractable Bismuth (Bi)	2023/12/21	90	75 - 125	99	80 - 120	<1.0	ug/g		
9125513	Acid Extractable Boron (B)	2023/12/21	84	75 - 125	90	80 - 120	<5.0	ug/g	NC	30
9125513	Acid Extractable Cadmium (Cd)	2023/12/21	88	75 - 125	93	80 - 120	<0.10	ug/g	NC	30
9125513	Acid Extractable Calcium (Ca)	2023/12/21	NC	75 - 125	116	80 - 120	<50	ug/g		
9125513	Acid Extractable Chromium (Cr)	2023/12/21	87	75 - 125	95	80 - 120	<1.0	ug/g	5.2	30
9125513	Acid Extractable Cobalt (Co)	2023/12/21	85	75 - 125	95	80 - 120	<0.10	ug/g	4.8	30
9125513	Acid Extractable Copper (Cu)	2023/12/21	86	75 - 125	95	80 - 120	<0.50	ug/g	6.6	30
9125513	Acid Extractable Iron (Fe)	2023/12/21	NC	75 - 125	99	80 - 120	<50	ug/g		
9125513	Acid Extractable Lead (Pb)	2023/12/21	92	75 - 125	100	80 - 120	<1.0	ug/g	5.3	30
9125513	Acid Extractable Magnesium (Mg)	2023/12/21	NC	75 - 125	100	80 - 120	<50	ug/g		
9125513	Acid Extractable Manganese (Mn)	2023/12/21	NC	75 - 125	99	80 - 120	<1.0	ug/g		
9125513	Acid Extractable Mercury (Hg)	2023/12/21	99	75 - 125	106	80 - 120	<0.050	ug/g		
9125513	Acid Extractable Molybdenum (Mo)	2023/12/21	86	75 - 125	90	80 - 120	<0.50	ug/g	NC	30
9125513	Acid Extractable Nickel (Ni)	2023/12/21	87	75 - 125	99	80 - 120	<0.50	ug/g	2.1	30
9125513	Acid Extractable Phosphorus (P)	2023/12/21	NC	75 - 125	104	80 - 120	<50	ug/g		
9125513	Acid Extractable Potassium (K)	2023/12/21	NC	75 - 125	102	80 - 120	<200	ug/g		
9125513	Acid Extractable Selenium (Se)	2023/12/21	91	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
9125513	Acid Extractable Silver (Ag)	2023/12/21	88	75 - 125	94	80 - 120	<0.20	ug/g	NC	30



exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9125513	Acid Extractable Sodium (Na)	2023/12/21	NC	75 - 125	103	80 - 120	<50	ug/g		
9125513	Acid Extractable Strontium (Sr)	2023/12/21	NC	75 - 125	95	80 - 120	<1.0	ug/g		
9125513	Acid Extractable Thallium (TI)	2023/12/21	89	75 - 125	98	80 - 120	<0.050	ug/g	10	30
9125513	Acid Extractable Tin (Sn)	2023/12/21	88	75 - 125	94	80 - 120	<1.0	ug/g		
9125513	Acid Extractable Uranium (U)	2023/12/21	95	75 - 125	103	80 - 120	<0.050	ug/g	25	30
9125513	Acid Extractable Vanadium (V)	2023/12/21	88	75 - 125	98	80 - 120	<5.0	ug/g	2.5	30
9125513	Acid Extractable Zinc (Zn)	2023/12/21	93	75 - 125	127 (1)	80 - 120	<5.0	ug/g	5.1	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 (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.



Client Project #: OTT-23002538-B0

Sampler Initials: MR

#### **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.

	IN	VOICE TO:				REPO	RT TO:						PROJEC	CT INFORMATION:		200	Laboratory Co.	
npany Nan				Compan							Quotation	n#:	C203	28			94	order
ention:	Accounts Payabl			Attention	Leah V	Vells					P.O. #:		OTT	22222522 22		IONT-2023-	12-1319	IIII
ress	Ottawa ON K2B			Address	-						Project:	in the second	011-	23002538-B0				394 Ianag
	(613) 688-1899		(613) 225-7337	Tet			Fax:				Project N Site #	iame.				1 111111		1
ailt	AP@exp.com; K			Email:	leah.w	ells@exp.com					Sampled			chenera	Rupel		C#968694-01-01	Katherine Szoz
MOE R	EGULATED DRINKIN SUBMITTED ON T	G WATER OR WA	TER INTENDED	FOR HUMAN C	ONSUMPTION	MUST BE	1	0		AN	ALYSIS RE	QUESTED	(PLEASE	BE SPECIFIC)			Tumaround Time (TAT) Please provide advance notice	
		HE BUREAU VER	Other Regulation			estructions	Sle):	(Soil		SW						Regular (S	tandard) TAT:	ior rush projects
	Res/Park Mediur	m/Fine CCME	Sanitary Sewe		Special II	structions	eld Filtered (please circle) Metals / Hg / Cr VI	F1-F4		ICPM						The second second	d if Rush TAT is not specified):	
ble 2	□Ind/Comm □Coarse	Reg 558	Storm Sewer E				/ Cr	S S		ils by						Please note: \$	= 5-7 Working days for most tests Standard TAT for certain tests such as	s BOD and Dinxins/Furans
ble 3	Agri/Other For RS	MISA PWQO	Municipality				d Filtered (please c Metals / Hg / Cr VI	VOCs by HS &	s (So	Meta						days - contact	your Project Manager for details.	
_	-	Other _	Reg 406 Tab	e			Filter	oo s	PAHS	ctable						Date Required	Rush TAT (if applies to entire su	bmission) Time Required.
107	Include Criteria	a on Certificate of	Analysis (Y/N)? _	Y_	J. One			99 153	g 153	Extra				St.		Rush Confirm	ation Number	(call lab for #)
San	nple Barcode Label	Sample (Locatio	in) Identification	Date Sampled	Time Sampled	Matrix	Œ.	O.Reg	O.Reg	Acid						# o. Bottles		rments
Bt	14-552			12/14/23	10:15	S		/	/	/						3		
BH	3-551			V	14:27	S		~	/	/						3		
		1:													1			
						4.						•						
										71								
	***																	
-			197															
	* RELINQUISHED BY: (Si	gnature/Print)	Date: (YY/I	MM/DD) Tie	me o	RECEIVED B	Y: (Signature/)	rint)	1 0	ate: (YY/N	MM/DD)	Tir	me	# jars used and	Noice	Laborato	ory Use Only	
ch	enor Regard	1/4/	23/12	112 80			and In	1 h	-	223/	12/15	08:	_	not submitted	Time Sensitive		e (°C) on Recei Custody S	Seal Yes
			TED ON THIS CHAIN O		bre		of the	un		23/14		08:				13,1	5,16 Intact	

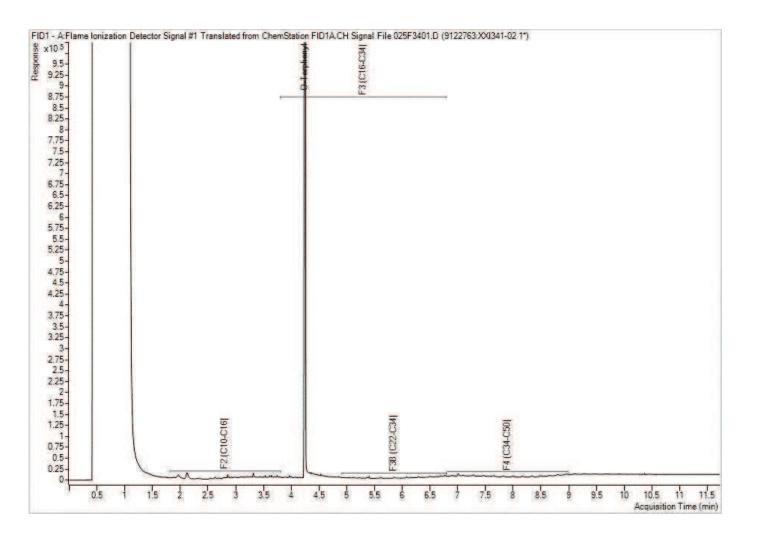
Bureau Veritas Job #: C3BJ388 Report Date: 2023/12/22 Bureau Veritas Sample: XXI341

exp Services Inc

Client Project #: OTT-23002538-B0

Client ID: BH4-SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



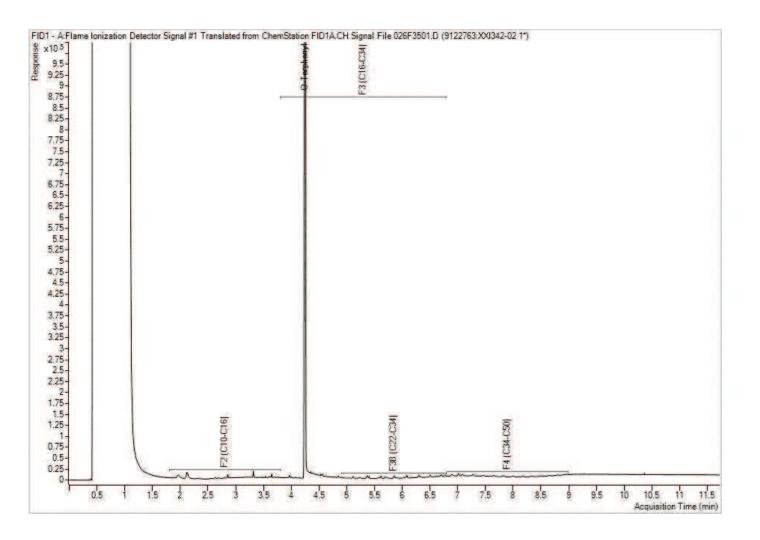
Bureau Veritas Job #: C3BJ388 Report Date: 2023/12/22 Bureau Veritas Sample: XXI342

exp Services Inc

Client Project #: OTT-23002538-B0

Client ID: BH3-SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram





Your Project #: OTT-23002538-B0 Your C.O.C. #: 968693-01-01

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/29

Report #: R7972653 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3BQ489 Received: 2023/12/21, 11:11

Sample Matrix: Water # Samples Received: 2

	Date	Date	
Analyses	Quantity Extracted	Analyzed Laboratory Method	<b>Analytical Method</b>
1,3-Dichloropropene Sum (1)	2 N/A	2023/12/29	EPA 8260C m
Volatile Organic Compounds in Water (1)	2 N/A	2023/12/28 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, MELCCFP, 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.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8



Your Project #: OTT-23002538-B0 Your C.O.C. #: 968693-01-01

#### **Attention: Leah Wells**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/29

Report #: R7972653 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3BQ489 Received: 2023/12/21, 11:11

**Encryption Key** 



Bureau Veritas 29 Dec 2023 13:23:21

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager

Email: Katherine. Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-B0

Sampler Initials: MR

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		XYW153	XYW154		
Sampling Date		2023/12/21 09:40	2023/12/21 10:44		
COC Number		968693-01-01	968693-01-01		
	UNITS	вн3	BH4	RDL	QC Batch
Calculated Parameters	•	•	•		
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	9129824
Volatile Organics	U,	<u> </u>	<u> </u>		
Acetone (2-Propanone)	ug/L	<10	<10	10	9132256
Benzene	ug/L	<0.20	0.34	0.20	9132256
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	9132256
Bromoform	ug/L	<1.0	<1.0	1.0	9132256
Bromomethane	ug/L	<0.50	<0.50	0.50	9132256
Carbon Tetrachloride	ug/L	<0.19	<0.19	0.19	9132256
Chlorobenzene	ug/L	<0.20	<0.20	0.20	9132256
Chloroform	ug/L	4.6	1.1	0.20	9132256
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	9132256
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9132256
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9132256
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9132256
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	9132256
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	9132256
1,2-Dichloroethane	ug/L	<0.49	<0.49	0.49	9132256
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	9132256
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	9132256
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	9132256
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	9132256
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	9132256
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	9132256
Ethylbenzene	ug/L	<0.20	<0.20	0.20	9132256
Ethylene Dibromide	ug/L	<0.19	<0.19	0.19	9132256
Hexane	ug/L	<1.0	<1.0	1.0	9132256
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	9132256
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	9132256
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	9132256
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	9132256
Styrene	ug/L	<0.40	<0.40	0.40	9132256
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	9132256
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	0.40	9132256
Tetrachloroethylene	ug/L	3.0	<0.20	0.20	9132256
Toluene	ug/L	<0.20	2.1	0.20	9132256
RDL = Reportable Detection Limit		<u> </u>			
QC Batch = Quality Control Batch					



Client Project #: OTT-23002538-B0

Sampler Initials: MR

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		XYW153	XYW154		
Sampling Date		2023/12/21	2023/12/21		
Sampling Date		09:40	10:44		
COC Number		968693-01-01	968693-01-01		
	UNITS	вн3	BH4	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	9132256
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	0.40	9132256
Trichloroethylene	ug/L	<0.20	<0.20	0.20	9132256
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	9132256
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	9132256
p+m-Xylene	ug/L	<0.20	0.44	0.20	9132256
o-Xylene	ug/L	<0.20	0.21	0.20	9132256
Total Xylenes	ug/L	<0.20	0.66	0.20	9132256
Surrogate Recovery (%)	•			•	
4-Bromofluorobenzene	%	101	101		9132256
D4-1,2-Dichloroethane	%	105	106		9132256
D8-Toluene	%	89	89		9132256
RDL = Reportable Detection Limit	*	•		•	
QC Batch = Quality Control Batch					



Report Date: 2023/12/29

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

### **TEST SUMMARY**

**Bureau Veritas ID:** XYW153

Shipped:

**Collected:** 2023/12/21

Sample ID: BH3 Matrix: Water

**Received:** 2023/12/21

Test Description	Instrumentation Batch		Extracted Date Analyzed		Analyst	
1,3-Dichloropropene Sum	CALC	9129824	N/A	2023/12/29	Automated Statchk	
Volatile Organic Compounds in Water	GC/MS	9132256	N/A	2023/12/28	Gabriella Morrone	

Bureau Veritas ID: XYW154 Sample ID: BH4 Matrix: Water

**Collected:** 2023/12/21

Shipped:

**Received:** 2023/12/21

Test Description	Instrumentation Batch		Extracted	Date Analyzed	Analyst	
1,3-Dichloropropene Sum	CALC	9129824	N/A	2023/12/29	Automated Statchk	
Volatile Organic Compounds in Water	GC/MS	9132256	N/A	2023/12/28	Gabriella Morrone	



Client Project #: OTT-23002538-B0

Sampler Initials: MR

### **GENERAL COMMENTS**

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

Package 1 10.3°C

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9132256	4-Bromofluorobenzene	2023/12/28	103	70 - 130	103	70 - 130	105	%		
9132256	D4-1,2-Dichloroethane	2023/12/28	100	70 - 130	97	70 - 130	103	%		
9132256	D8-Toluene	2023/12/28	105	70 - 130	104	70 - 130	89	%		
9132256	1,1,1,2-Tetrachloroethane	2023/12/28	105	70 - 130	96	70 - 130	<0.50	ug/L		
9132256	1,1,1-Trichloroethane	2023/12/28	103	70 - 130	95	70 - 130	<0.20	ug/L		
9132256	1,1,2,2-Tetrachloroethane	2023/12/28	110	70 - 130	99	70 - 130	<0.40	ug/L	NC	30
9132256	1,1,2-Trichloroethane	2023/12/28	104	70 - 130	93	70 - 130	<0.40	ug/L		
9132256	1,1-Dichloroethane	2023/12/28	103	70 - 130	94	70 - 130	<0.20	ug/L		
9132256	1,1-Dichloroethylene	2023/12/28	99	70 - 130	91	70 - 130	<0.20	ug/L		
9132256	1,2-Dichlorobenzene	2023/12/28	99	70 - 130	93	70 - 130	<0.40	ug/L	NC	30
9132256	1,2-Dichloroethane	2023/12/28	95	70 - 130	85	70 - 130	<0.49	ug/L		
9132256	1,2-Dichloropropane	2023/12/28	103	70 - 130	93	70 - 130	<0.20	ug/L		
9132256	1,3-Dichlorobenzene	2023/12/28	99	70 - 130	94	70 - 130	<0.40	ug/L		
9132256	1,4-Dichlorobenzene	2023/12/28	110	70 - 130	103	70 - 130	<0.40	ug/L	NC	30
9132256	Acetone (2-Propanone)	2023/12/28	102	60 - 140	89	60 - 140	<10	ug/L		
9132256	Benzene	2023/12/28	95	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9132256	Bromodichloromethane	2023/12/28	109	70 - 130	98	70 - 130	<0.50	ug/L		
9132256	Bromoform	2023/12/28	98	70 - 130	88	70 - 130	<1.0	ug/L		
9132256	Bromomethane	2023/12/28	98	60 - 140	86	60 - 140	<0.50	ug/L		
9132256	Carbon Tetrachloride	2023/12/28	99	70 - 130	91	70 - 130	<0.19	ug/L		
9132256	Chlorobenzene	2023/12/28	106	70 - 130	99	70 - 130	<0.20	ug/L		
9132256	Chloroform	2023/12/28	106	70 - 130	97	70 - 130	<0.20	ug/L		
9132256	cis-1,2-Dichloroethylene	2023/12/28	105	70 - 130	95	70 - 130	<0.50	ug/L		
9132256	cis-1,3-Dichloropropene	2023/12/28	97	70 - 130	88	70 - 130	<0.30	ug/L		
9132256	Dibromochloromethane	2023/12/28	102	70 - 130	92	70 - 130	<0.50	ug/L		
9132256	Dichlorodifluoromethane (FREON 12)	2023/12/28	104	60 - 140	78	60 - 140	<1.0	ug/L		
9132256	Ethylbenzene	2023/12/28	92	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9132256	Ethylene Dibromide	2023/12/28	106	70 - 130	95	70 - 130	<0.19	ug/L		
9132256	Hexane	2023/12/28	97	70 - 130	88	70 - 130	<1.0	ug/L		
9132256	Methyl Ethyl Ketone (2-Butanone)	2023/12/28	110	60 - 140	97	60 - 140	<10	ug/L		
9132256	Methyl Isobutyl Ketone	2023/12/28	109	70 - 130	97	70 - 130	<5.0	ug/L		
9132256	Methyl t-butyl ether (MTBE)	2023/12/28	106	70 - 130	96	70 - 130	<0.50	ug/L		



Bureau Veritas Job #: C3BQ489 Report Date: 2023/12/29

### QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: MR

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPI	<u> </u>
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9132256	Methylene Chloride(Dichloromethane)	2023/12/28	105	70 - 130	95	70 - 130	<2.0	ug/L	NC	30
9132256	o-Xylene	2023/12/28	83	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9132256	p+m-Xylene	2023/12/28	99	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9132256	Styrene	2023/12/28	108	70 - 130	104	70 - 130	<0.40	ug/L		
9132256	Tetrachloroethylene	2023/12/28	100	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9132256	Toluene	2023/12/28	97	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9132256	Total Xylenes	2023/12/28					<0.20	ug/L	NC	30
9132256	trans-1,2-Dichloroethylene	2023/12/28	103	70 - 130	95	70 - 130	<0.50	ug/L		
9132256	trans-1,3-Dichloropropene	2023/12/28	100	70 - 130	90	70 - 130	< 0.40	ug/L		
9132256	Trichloroethylene	2023/12/28	102	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9132256	Trichlorofluoromethane (FREON 11)	2023/12/28	97	70 - 130	88	70 - 130	<0.50	ug/L		
9132256	Vinyl Chloride	2023/12/28	99	70 - 130	87	70 - 130	<0.20	ug/L		

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).



Client Project #: OTT-23002538-B0

Sampler Initials: MR

### **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.

#### C3B8489 Maxxam Analytics Presence of Visible Particulate/Sediment CAM FCD-01013/5 Page 1 of 1 When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below **Bottle Types** Inorganics **Organics** Hydrocarbons **Volatiles** Other Pest/ Pest/ SVOC/ SVOC/ Herb Herb ABN ABN Metals Organic Organic PCB PAH PAH Dioxin F1 F1 Sample ID F1 F1 F2-F4 F2-F4 voc voc voc CrVI CN Herb Herb ABN ABN 1 of 2 2 of 2 1 of 2 2 of 2 voc (Diss.) 1 of 2 2 of 2 1 of 2 2 of 2 F4G 1 of 2 2 of 2 /furan Vial 1 Vial 2 Vial 3 Vial 4 1 of 2 2 of 2 Vial 2 Vial 3 Vial 4 Vial 1 BH3 1 BHY TS 2 3 5 6 7 8 9 10 Comments: Legend: Recorded By: (signature/print) Suspended Particulate Trace Settled Sediment (just covers bottom of container or less) Sediment greater than (>) Trace, but less than (<) 1 cm

IBU	REAU RITAS	Bureau Veritas 6740 Campobello Road, Miss			ved in C		-563-6266 Fax	(905) 817-57	777 www	bvna.com						c A			Page of
		NVOICE TO:				REPO	RT TO:						PROJECT	INFORMATIO	1:		TAR MA	1 006	
Compar	y Name: #17498 exp Se	The state of the s		Company N	lame:					2 =	Quotation	#:	C2032	8		1101	NT-2023-12-	1806	ottle Order #:
Attentio				Attention	Leah W	/ells					P.O. #:						4		. (100000000
Address				Address:	_						Project:		OTT-2	3002538-B0					968693
	Ottawa ON K2B (613) 688-1899	10.101	225 7227								Project Na	ame:						COC #:	Project Manager:
Tel: Email:		Fax: (613)	225-7337	Tel:	look we	ells@exp.com	Fax:				Site #:		14.	17	12	. 11			Katherine Szozda
STATE OF THE PARTY.	A STATE OF THE PARTY OF THE PAR	THE RESERVE THE PARTY OF THE PA	THE RESERVE THE PARTY OF THE PA	Email:	THE RESERVE OF THE PERSON NAMED IN			_			Sampled 6	,		SPECIFIC)	c Re	soll	-	C#968693-01-01 Turnaround Time (TAT)	Demind:
	SUBMITTED ON Regulation 153 (2011)	IG WATER OR WATER IN THE BUREAU VERITAS DI Other	RINKING WATER	ÇHAIN O	F CUSTODY Special In		rcle):	/4 4		AN	ALTOIS NE	QUESTED	(FLEAGE BE	SPECIFIC)				Please provide advance notice tandard) TAT: dif Rush TAT is not specified):	
Table Table Table	2 Ind/Comm Coars	e Reg 558. St	enitary Sewer Bylaw orm Sewer Bylaw cipality				d Filtered (please ci	HS &		y ICPMS							Standard TAT	= 5-7 Working days for most tests Standard TAT for certain tests such as your Project Manager for details.	
Table		PWQO R	Reg 406 Table				Field Filtered (please circle): Metals / Hg / Cr VI	153 VOCs by	153 PAHs	ed Metals by							Date Required	ation Number	Fime Required:
	The state of the s	a on Certificate of Analysis					F E	Reg	Reg	ssolv							# of Bottles		(call lab fcr #)
	Sample Barcode Label	Sample (Location) Identific	Date S	ampled	Time Sampled	Matrix		0	0	ă					_			Com	ments
1	BH3		12/21	1/2023	9:40	GW											2		
2	3H4		J	/	10:44	V		1									2		
3																			*
4																			
5																			
6																			
7																			
9																			
9																			
0				$\neg$															8
	* RELINQUISHED BY: (Sig	gnature/Print)	Date: (YY/MM/DD)	Time		RECEIVED B	Y: (Signature/	Print)		Date: (YY/I	MM/DD)	Т	me	# jars used	ind 1 Co	pac	Laborat	ory Use Only One Ice	Pack only)
Mont	· C/Macker	250 Parell 2	13/12/21	11:10	o ost	Ost	nini.	Perer	9 3	2023/	12/21	11.	1)	not submit		Sensitive	Temperatu	re (°C) on Recei Custody Preser	Seal Yes No
(	/				KALANDO	# RAUNE	RT KAN	OR BR	AR	2023	1 9 133	ng	:40				10,1	0 / 1\ Intac	

Bureau Veritas Canada (2019) Inc.



Your Project #: OTT-23002538-A0 Your C.O.C. #: 961363-03-01

#### **Attention: Leah Wells**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/11/09

Report #: R7904008 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3Y3431 Received: 2023/11/01, 15:49

Sample Matrix: Soil # Samples Received: 18

# Samples Received: 18					
Auchase	0	Date	Date	Labauatau Mathad	Amalustical Adathasi
Analyses	•	Extracted	Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	18	N/A		CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron (1)	13			CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron (1)	5	2023/11/06	2023/11/06	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum (1)	8	N/A	2023/11/06		EPA 8260C m
1,3-Dichloropropene Sum (1)	10	N/A	2023/11/07		EPA 8260C m
Free (WAD) Cyanide (1)	17	2023/11/06	2023/11/06	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide (1)	1	2023/11/07	2023/11/07	CAM SOP-00457	OMOE E3015 m
Conductivity (1)	18	2023/11/06	2023/11/06	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1, 2)	18	2023/11/06	2023/11/07	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	6	2023/11/06	2023/11/06	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	12	2023/11/06	2023/11/07	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric) (1)	3	2023/11/09	2023/11/09	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS (1)	5	2023/11/03	2023/11/07	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS (1)	3	2023/11/04	2023/11/06	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS (1)	10	2023/11/04	2023/11/07	CAM SOP-00447	EPA 6020B m
Moisture (1)	18	N/A	2023/11/03	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	18	2023/11/05	2023/11/05	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT (1)	18	2023/11/06	2023/11/06	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR) (1)	18	N/A	2023/11/07	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs (1)	8	N/A	2023/11/04	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs (1)	6	N/A	2023/11/06	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs (1)	4	N/A	2023/11/07	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, MELCCFP, 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.



Your Project #: OTT-23002538-A0 Your C.O.C. #: 961363-03-01

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/11/09

Report #: R7904008 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C3Y3431** Received: 2023/11/01, 15:49

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) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd, Mississauga, ON, L5N 2L8
- (2) Soils are reported on a dry weight basis unless otherwise specified.
- (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**



09 Nov 2023 15:55:14

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager

Email: Katherine.Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH375		XMH376		XMH377		
Sampling Date		2023/10/26		2023/10/26		2023/10/26		
Sampling Date		14:00		14:00		14:00		
COC Number		961363-03-01		961363-03-01		961363-03-01		
	UNITS	BH-1 SS2	QC Batch	DUP 2	QC Batch	BH-1 SS3	RDL	QC Batch
Calculated Parameters	•	•	•	•	•	•		
Sodium Adsorption Ratio	N/A	11	9024979	13	9024979	18		9024979
Inorganics	*	•	•	•	•	•	•	
Conductivity	mS/cm	1.1	9031089	0.65	9031062	0.51	0.002	9031089
Available (CaCl2) pH	рН	6.45	9030865	4.99	9030865	6.63		9030865
WAD Cyanide (Free)	ug/g	<0.01	9032757	<0.01	9030462	<0.01	0.01	9030462
Chromium (VI)	ug/g	0.22	9031125	0.23	9031125	<0.18	0.18	9031125
Metals								
Hot Water Ext. Boron (B)	ug/g	0.092	9027882	0.11	9027893	0.16	0.050	9027882
Acid Extractable Antimony (Sb)	ug/g	<0.20	9027668	<0.20	9029430	0.20	0.20	9027668
Acid Extractable Arsenic (As)	ug/g	4.4	9027668	5.0	9029430	7.6	1.0	9027668
Acid Extractable Barium (Ba)	ug/g	66	9027668	71	9029430	100	0.50	9027668
Acid Extractable Beryllium (Be)	ug/g	0.77	9027668	0.88	9029430	1.0	0.20	9027668
Acid Extractable Boron (B)	ug/g	<5.0	9027668	5.2	9029430	6.5	5.0	9027668
Acid Extractable Cadmium (Cd)	ug/g	0.10	9027668	0.12	9029430	0.13	0.10	9027668
Acid Extractable Chromium (Cr)	ug/g	25	9027668	28	9029430	32	1.0	9027668
Acid Extractable Cobalt (Co)	ug/g	10	9027668	11	9029430	23	0.10	9027668
Acid Extractable Copper (Cu)	ug/g	23	9027668	27	9029430	40	0.50	9027668
Acid Extractable Lead (Pb)	ug/g	11	9027668	13	9029430	18	1.0	9027668
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9027668	<0.50	9029430	1.0	0.50	9027668
Acid Extractable Nickel (Ni)	ug/g	28	9027668	31	9029430	42	0.50	9027668
Acid Extractable Selenium (Se)	ug/g	<0.50	9027668	<0.50	9029430	<0.50	0.50	9027668
Acid Extractable Silver (Ag)	ug/g	<0.20	9027668	<0.20	9029430	<0.20	0.20	9027668
Acid Extractable Thallium (Tl)	ug/g	0.14	9027668	0.16	9029430	0.19	0.050	9027668
Acid Extractable Uranium (U)	ug/g	0.61	9027668	0.77	9029430	0.74	0.050	9027668
Acid Extractable Vanadium (V)	ug/g	30	9027668	34	9029430	36	5.0	9027668
Acid Extractable Zinc (Zn)	ug/g	49	9027668	55	9029430	90	5.0	9027668
Acid Extractable Mercury (Hg)	ug/g	<0.050	9027668	<0.050	9029430	0.067	0.050	9027668
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH378		XMH379	XMH380			XMH380		
Sampling Date		2023/10/30		2023/10/30	2023/10/27			2023/10/27		
Samping Bate		10:00		10:00	15:00			15:00		
COC Number		961363-03-01		961363-03-01	961363-03-01			961363-03-01		
	UNITS	BH-2 AS3	QC Batch	BH-2 SS1	BH-6 SS1	RDL	QC Batch	BH-6 SS1 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	8.1	9024979	4.6	11		9024979			
Inorganics			•				•		•	•
Conductivity	mS/cm	0.42	9031270	0.27	0.38	0.002	9031062			
Available (CaCl2) pH	рН	7.37	9030312	7.49	7.56		9030312			
WAD Cyanide (Free)	ug/g	<0.01	9030480	<0.01	<0.01	0.01	9030480	<0.01	0.01	9030480
Chromium (VI)	ug/g	<0.18	9030577	<0.18	<0.18	0.18	9030577	<0.18	0.18	9030577
Metals	•					•			•	
Hot Water Ext. Boron (B)	ug/g	0.45	9027893	0.096	0.20	0.050	9027893			
Acid Extractable Antimony (Sb)	ug/g	0.28	9029430	0.23	0.21	0.20	9029430			
Acid Extractable Arsenic (As)	ug/g	6.9	9029430	8.1	4.3	1.0	9029430			
Acid Extractable Barium (Ba)	ug/g	170	9029430	110	73	0.50	9029430			
Acid Extractable Beryllium (Be)	ug/g	0.97	9029430	0.65	0.60	0.20	9029430			
Acid Extractable Boron (B)	ug/g	9.5	9029430	<5.0	5.6	5.0	9029430			
Acid Extractable Cadmium (Cd)	ug/g	0.12	9029430	0.23	0.14	0.10	9029430			
Acid Extractable Chromium (Cr)	ug/g	32	9029430	23	21	1.0	9029430			
Acid Extractable Cobalt (Co)	ug/g	18	9029430	11	14	0.10	9029430			
Acid Extractable Copper (Cu)	ug/g	40	9029430	19	22	0.50	9029430			
Acid Extractable Lead (Pb)	ug/g	20	9029430	19	23	1.0	9029430			
Acid Extractable Molybdenum (Mo)	ug/g	1.2	9029430	1.6	0.95	0.50	9029430			
Acid Extractable Nickel (Ni)	ug/g	42	9029430	25	27	0.50	9029430			
Acid Extractable Selenium (Se)	ug/g	<0.50	9029430	<0.50	<0.50	0.50	9029430			
Acid Extractable Silver (Ag)	ug/g	<0.20	9029430	<0.20	<0.20	0.20	9029430			
Acid Extractable Thallium (TI)	ug/g	0.16	9029430	0.16	0.17	0.050	9029430			
Acid Extractable Uranium (U)	ug/g	0.98	9029430	0.66	0.60	0.050	9029430			
Acid Extractable Vanadium (V)	ug/g	32	9029430	31	27	5.0	9029430			
Acid Extractable Zinc (Zn)	ug/g	93	9029430	69	62	5.0	9029430			
Acid Extractable Mercury (Hg)	ug/g	<0.050	9029430	<0.050	<0.050	0.050	9029430			

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH381		XMH382	XMH383		XMH384		
Sampling Date		2023/10/27 15:00		2023/10/27 09:30	2023/10/27 09:30		2023/10/27 09:00		
COC Number		961363-03-01		961363-03-01	961363-03-01		961363-03-01		
	UNITS	BH-6 SS2	QC Batch	BH-7 SS2A	BH-7 SS2B	QC Batch	BH-8 AS3	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	18	9024979	5.8	21	9024979	7.1		9024979
Inorganics	•							•	
Conductivity	mS/cm	0.53	9031089	0.22	0.61	9031062	0.55	0.002	9031062
Available (CaCl2) pH	рН	7.57	9030865	7.71	8.78	9030312	7.65		9030312
WAD Cyanide (Free)	ug/g	<0.01	9030462	<0.01	<0.01	9030480	<0.01	0.01	9030480
Chromium (VI)	ug/g	<0.18	9031125	<0.18	<0.18	9030577	<0.18	0.18	9030577
Metals						•			
Hot Water Ext. Boron (B)	ug/g	0.21	9027882	0.14	0.26	9027893	0.56	0.050	9030355
Acid Extractable Antimony (Sb)	ug/g	0.35	9027668	<0.20	<0.20	9029430	<0.20	0.20	9029430
Acid Extractable Arsenic (As)	ug/g	6.8	9027668	1.3	3.4	9029430	2.7	1.0	9029430
Acid Extractable Barium (Ba)	ug/g	290	9027668	31	140	9029430	290	0.50	9029430
Acid Extractable Beryllium (Be)	ug/g	0.98	9027668	0.21	0.62	9029430	0.36	0.20	9029430
Acid Extractable Boron (B)	ug/g	7.6	9027668	<5.0	6.6	9029430	11	5.0	9029430
Acid Extractable Cadmium (Cd)	ug/g	0.30	9027668	<0.10	0.12	9029430	<0.10	0.10	9029430
Acid Extractable Chromium (Cr)	ug/g	30	9027668	11	24	9029430	18	1.0	9029430
Acid Extractable Cobalt (Co)	ug/g	20	9027668	4.9	15	9029430	8.5	0.10	9029430
Acid Extractable Copper (Cu)	ug/g	43	9027668	11	25	9029430	17	0.50	9029430
Acid Extractable Lead (Pb)	ug/g	26	9027668	5.6	21	9029430	18	1.0	9029430
Acid Extractable Molybdenum (Mo)	ug/g	1.8	9027668	1.1	1.2	9029430	0.77	0.50	9029430
Acid Extractable Nickel (Ni)	ug/g	48	9027668	9.2	30	9029430	16	0.50	9029430
Acid Extractable Selenium (Se)	ug/g	<0.50	9027668	<0.50	<0.50	9029430	<0.50	0.50	9029430
Acid Extractable Silver (Ag)	ug/g	<0.20	9027668	<0.20	<0.20	9029430	<0.20	0.20	9029430
Acid Extractable Thallium (TI)	ug/g	0.20	9027668	0.12	0.14	9029430	0.18	0.050	9029430
Acid Extractable Uranium (U)	ug/g	0.74	9027668	0.49	1.1	9029430	0.41	0.050	9029430
Acid Extractable Vanadium (V)	ug/g	32	9027668	20	28	9029430	17	5.0	9029430
Acid Extractable Zinc (Zn)	ug/g	100	9027668	18	67	9029430	32	5.0	9029430
Acid Extractable Mercury (Hg)	ug/g	<0.050	9027668	<0.050	<0.050	9029430	<0.050	0.050	9029430
RDL = Reportable Detection Limit									



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH385		XMH386		XMH387		
Sampling Date		2023/10/26		2023/10/26		2023/10/26		
Sampling Date		11:00		11:00		12:00		
COC Number		961363-03-01		961363-03-01		961363-03-01		
	UNITS	BH-9 AS1	QC Batch	BH-9 SS2	QC Batch	BH-10 AS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	0.44	9024979	26	9024979	4.1		9024979
Inorganics	*	•	•	•	•	•	•	,
Conductivity	mS/cm	0.15	9031089	0.68	9031062	0.24	0.002	9031270
Available (CaCl2) pH	рН	8.01	9030865	7.58	9030312	7.76		9030901
WAD Cyanide (Free)	ug/g	<0.01	9030462	<0.01	9030480	<0.01	0.01	9030480
Chromium (VI)	ug/g	0.18	9031125	<0.18	9030577	<0.18	0.18	9030577
Metals								
Hot Water Ext. Boron (B)	ug/g	0.23	9030355	0.14	9027893	0.19	0.050	9030355
Acid Extractable Antimony (Sb)	ug/g	<0.20	9027668	<0.20	9029430	<0.20	0.20	9029438
Acid Extractable Arsenic (As)	ug/g	6.8	9027668	6.5	9029430	7.2	1.0	9029438
Acid Extractable Barium (Ba)	ug/g	6.7	9027668	140	9029430	27	0.50	9029438
Acid Extractable Beryllium (Be)	ug/g	0.21	9027668	0.83	9029430	0.43	0.20	9029438
Acid Extractable Boron (B)	ug/g	5.8	9027668	7.1	9029430	6.8	5.0	9029438
Acid Extractable Cadmium (Cd)	ug/g	0.23	9027668	0.17	9029430	0.36	0.10	9029438
Acid Extractable Chromium (Cr)	ug/g	8.7	9027668	28	9029430	14	1.0	9029438
Acid Extractable Cobalt (Co)	ug/g	5.6	9027668	19	9029430	7.7	0.10	9029438
Acid Extractable Copper (Cu)	ug/g	11	9027668	40	9029430	15	0.50	9029438
Acid Extractable Lead (Pb)	ug/g	49	9027668	16	9029430	35	1.0	9029438
Acid Extractable Molybdenum (Mo)	ug/g	4.8	9027668	1.3	9029430	3.1	0.50	9029438
Acid Extractable Nickel (Ni)	ug/g	13	9027668	39	9029430	19	0.50	9029438
Acid Extractable Selenium (Se)	ug/g	<0.50	9027668	<0.50	9029430	<0.50	0.50	9029438
Acid Extractable Silver (Ag)	ug/g	<0.20	9027668	<0.20	9029430	<0.20	0.20	9029438
Acid Extractable Thallium (Tl)	ug/g	0.15	9027668	0.16	9029430	0.22	0.050	9029438
Acid Extractable Uranium (U)	ug/g	0.57	9027668	0.68	9029430	0.61	0.050	9029438
Acid Extractable Vanadium (V)	ug/g	13	9027668	32	9029430	23	5.0	9029438
Acid Extractable Zinc (Zn)	ug/g	29	9027668	99	9029430	40	5.0	9029438
Acid Extractable Mercury (Hg)	ug/g	<0.050	9027668	<0.050	9029430	<0.050	0.050	9029438
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH388			XMH388			XMH389		
Sampling Date		2023/10/26 12:00			2023/10/26 12:00			2023/10/30 14:00		
COC Number		961363-03-01			961363-03-01			961363-03-01		
	UNITS	BH-10 SS2	RDL	QC Batch	BH-10 SS2 Lab-Dup	RDL	QC Batch	BH-11 SS1	RDL	QC Batch
Calculated Parameters		·			·	·				·
Sodium Adsorption Ratio	N/A	7.2		9024979				18		9024979
Inorganics	•									
Conductivity	mS/cm	0.24	0.002	9031270				0.60	0.002	9031062
Available (CaCl2) pH	рН	7.39		9030901				7.42		9030312
WAD Cyanide (Free)	ug/g	<0.01	0.01	9030480				<0.01	0.01	9030480
Chromium (VI)	ug/g	<0.18	0.18	9030577				<0.18	0.18	9030577
Metals	•		•			•				•
Hot Water Ext. Boron (B)	ug/g	0.16	0.050	9030369	0.15	0.050	9030369	0.10	0.050	9027893
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	9029438				<0.20	0.20	9029430
Acid Extractable Arsenic (As)	ug/g	5.0	1.0	9029438				2.9	1.0	9029430
Acid Extractable Barium (Ba)	ug/g	45	0.50	9029438				32	0.50	9029430
Acid Extractable Beryllium (Be)	ug/g	0.71	0.20	9029438				0.26	0.20	9029430
Acid Extractable Boron (B)	ug/g	5.8	5.0	9029438				5.4	5.0	9029430
Acid Extractable Cadmium (Cd)	ug/g	0.10	0.10	9029438				<0.10	0.10	9029430
Acid Extractable Chromium (Cr)	ug/g	24	1.0	9029438				12	1.0	9029430
Acid Extractable Cobalt (Co)	ug/g	13	0.10	9029438				5.7	0.10	9029430
Acid Extractable Copper (Cu)	ug/g	28	0.50	9029438				14	0.50	9029430
Acid Extractable Lead (Pb)	ug/g	16	1.0	9029438				7.5	1.0	9029430
Acid Extractable Molybdenum (Mo)	ug/g	0.80	0.50	9029438				1.4	0.50	9029430
Acid Extractable Nickel (Ni)	ug/g	27	0.50	9029438				11	0.50	9029430
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	9029438				<0.50	0.50	9029430
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	9029438				<0.20	0.20	9029430
Acid Extractable Thallium (TI)	ug/g	0.12	0.050	9029438				0.18	0.050	9029430
Acid Extractable Uranium (U)	ug/g	0.83	0.050	9029438				0.58	0.050	9029430
Acid Extractable Vanadium (V)	ug/g	33	5.0	9029438				24	5.0	9029430
Acid Extractable Zinc (Zn)	ug/g	78	5.0	9029438				24	5.0	9029430
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	9029438				<0.050	0.050	9029430

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH390		XMH391		XMH392		
Sampling Date		2023/10/30		2023/10/26		2023/10/30		
		14:00		12:00		14:00		
COC Number		961363-03-01		961363-03-01		961363-03-01		
	UNITS	BH-11 SS2	QC Batch	DUP 1	QC Batch	DUP 3	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	7.7	9024979	7.0	9024979	12		9024979
Inorganics	•	•	•	•	•	•	•	
Conductivity	mS/cm	0.26	9031062	0.31	9031089	0.33	0.002	9031270
Available (CaCl2) pH	рН	7.43	9030312	7.22	9030865	7.65		9030901
WAD Cyanide (Free)	ug/g	<0.01	9030480	<0.01	9030462	<0.01	0.01	9030480
Chromium (VI)	ug/g	<0.18	9030577	<0.18	9031125	0.22	0.18	9030577
Metals								
Hot Water Ext. Boron (B)	ug/g	0.11	9027893	0.11	9027882	0.21	0.050	9030355
Acid Extractable Antimony (Sb)	ug/g	<0.20	9029430	<0.20	9027668	0.22	0.20	9029438
Acid Extractable Arsenic (As)	ug/g	5.6	9029430	5.1	9027668	7.1	1.0	9029438
Acid Extractable Barium (Ba)	ug/g	51	9029430	55	9027668	65	0.50	9029438
Acid Extractable Beryllium (Be)	ug/g	0.82	9029430	0.69	9027668	0.97	0.20	9029438
Acid Extractable Boron (B)	ug/g	5.6	9029430	<5.0	9027668	8.3	5.0	9029438
Acid Extractable Cadmium (Cd)	ug/g	<0.10	9029430	0.11	9027668	<0.10	0.10	9029438
Acid Extractable Chromium (Cr)	ug/g	26	9029430	24	9027668	30	1.0	9029438
Acid Extractable Cobalt (Co)	ug/g	16	9029430	15	9027668	18	0.10	9029438
Acid Extractable Copper (Cu)	ug/g	30	9029430	34	9027668	38	0.50	9029438
Acid Extractable Lead (Pb)	ug/g	18	9029430	14	9027668	25	1.0	9029438
Acid Extractable Molybdenum (Mo)	ug/g	0.70	9029430	0.95	9027668	1.0	0.50	9029438
Acid Extractable Nickel (Ni)	ug/g	31	9029430	30	9027668	39	0.50	9029438
Acid Extractable Selenium (Se)	ug/g	<0.50	9029430	<0.50	9027668	<0.50	0.50	9029438
Acid Extractable Silver (Ag)	ug/g	<0.20	9029430	<0.20	9027668	<0.20	0.20	9029438
Acid Extractable Thallium (Tl)	ug/g	0.16	9029430	0.12	9027668	0.20	0.050	9029438
Acid Extractable Uranium (U)	ug/g	0.66	9029430	0.71	9027668	0.65	0.050	9029438
Acid Extractable Vanadium (V)	ug/g	29	9029430	30	9027668	33	5.0	9029438
Acid Extractable Zinc (Zn)	ug/g	65	9029430	80	9027668	79	5.0	9029438
Acid Extractable Mercury (Hg)	ug/g	<0.050	9029430	<0.050	9027668	<0.050	0.050	9029438
RDL = Reportable Detection Limit QC Batch = Quality Control Batch								



Client Project #: OTT-23002538-A0

Sampler Initials: LW

# O.REG 153 PAHS (SOIL)

			_	_		_	_	_	_	_
Bureau Veritas ID		XMH375			XMH375			XMH376		
Sampling Date		2023/10/26 14:00			2023/10/26 14:00			2023/10/26 14:00		
COC Number		961363-03-01			961363-03-01			961363-03-01		
	UNITS	BH-1 SS2	RDL	QC Batch	BH-1 SS2 Lab-Dup	RDL	QC Batch	DUP 2	RDL	QC Batch
Calculated Parameters	•	•	•	•	•	•		•	•	•
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	9024160				<0.0071	0.0071	9024160
Polyaromatic Hydrocarbons				Į.	•			1		Į.
Acenaphthene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Acenaphthylene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Anthracene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Benzo(a)anthracene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Benzo(a)pyrene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Chrysene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Fluoranthene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Fluorene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
1-Methylnaphthalene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
2-Methylnaphthalene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Naphthalene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Phenanthrene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Pyrene	ug/g	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886	<0.0050	0.0050	9029886
Surrogate Recovery (%)										
D10-Anthracene	%	118		9029886	107		9029886	84		9029886
D14-Terphenyl (FS)	%	105		9029886	100		9029886	66		9029886
D8-Acenaphthylene	%	86		9029886	84		9029886	54		9029886

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: LW

# O.REG 153 PAHS (SOIL)

Bureau Veritas ID		XMH377		XMH378		XMH379	XMH380	XMH381		
Sampling Date		2023/10/26		2023/10/30		2023/10/30	2023/10/27	2023/10/27		
Jamping Date		14:00		10:00		10:00	15:00	15:00		
COC Number		961363-03-01		961363-03-01		961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-1 SS3	RDL	BH-2 AS3	RDL	BH-2 SS1	BH-6 SS1	BH-6 SS2	RDL	QC Batch
Calculated Parameters				1		1	1			•
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	<0.011	0.011	<0.0071	0.075	<0.0071	0.0071	9024160
Polyaromatic Hydrocarbons	•		•		•			•		•
Acenaphthene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.18	<0.0050	0.0050	9029886
Acenaphthylene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.0073	<0.0050	0.0050	9029886
Anthracene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.64	<0.0050	0.0050	9029886
Benzo(a)anthracene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.0070	0.91	<0.0050	0.0050	9029886
Benzo(a)pyrene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.0061	0.66	<0.0050	0.0050	9029886
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.010	0.87	<0.0050	0.0050	9029886
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.24	<0.0050	0.0050	9029886
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.31	<0.0050	0.0050	9029886
Chrysene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.0064	0.73	<0.0050	0.0050	9029886
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.099	<0.0050	0.0050	9029886
Fluoranthene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.015	2.1	<0.0050	0.0050	9029886
Fluorene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.29	<0.0050	0.0050	9029886
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.29	<0.0050	0.0050	9029886
1-Methylnaphthalene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.040	<0.0050	0.0050	9029886
2-Methylnaphthalene	ug/g	<0.0050	0.0050	<0.010 (1)	0.010	<0.0050	0.034	<0.0050	0.0050	9029886
Naphthalene	ug/g	<0.0050	0.0050	<0.0050	0.0050	<0.0050	0.035	<0.0050	0.0050	9029886
Phenanthrene	ug/g	0.0069	0.0050	0.0071	0.0050	0.0065	2.1	0.011	0.0050	9029886
Pyrene	ug/g	<0.0050	0.0050	<0.0050	0.0050	0.014	1.6	<0.0050	0.0050	9029886
Surrogate Recovery (%)										
D10-Anthracene	%	99		101		109	92	96		9029886
D14-Terphenyl (FS)	%	95		102		100	102	94		9029886
D8-Acenaphthylene	%	89		93		85	90	82		9029886

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Detection Limit was raised due to matrix interferences.



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

# O.REG 153 PAHS (SOIL)

Bureau Veritas ID		XMH382	XMH383		XMH384	XMH385		XMH386		
Sampling Date		2023/10/27 09:30	2023/10/27 09:30		2023/10/27 09:00	2023/10/26 11:00		2023/10/26 11:00		
COC Number		961363-03-01	961363-03-01		961363-03-01	961363-03-01		961363-03-01		
	UNITS	BH-7 SS2A	BH-7 SS2B	RDL	BH-8 AS3	BH-9 AS1	RDL	BH-9 SS2	RDL	QC Batch
Calculated Parameters	•	•	•		•	•	•		<u>*                                    </u>	
Methylnaphthalene, 2-(1-)	ug/g	0.043	0.053	0.0071	<0.071	<0.071	0.071	<0.0071	0.0071	9024160
Polyaromatic Hydrocarbons					•	•		•		
Acenaphthene	ug/g	0.012	0.069	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
Acenaphthylene	ug/g	<0.0050	<0.0050	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
Anthracene	ug/g	0.16	0.22	0.0050	0.091	<0.050	0.050	<0.0050	0.0050	9029886
Benzo(a)anthracene	ug/g	0.45	0.58	0.0050	0.24	<0.050	0.050	<0.0050	0.0050	9029886
Benzo(a)pyrene	ug/g	0.38	0.58	0.0050	0.21	<0.050	0.050	<0.0050	0.0050	9029886
Benzo(b/j)fluoranthene	ug/g	0.52	0.78	0.0050	0.30	<0.050	0.050	<0.0050	0.0050	9029886
Benzo(g,h,i)perylene	ug/g	0.17	0.27	0.0050	0.10	<0.050	0.050	<0.0050	0.0050	9029886
Benzo(k)fluoranthene	ug/g	0.20	0.30	0.0050	0.12	<0.050	0.050	<0.0050	0.0050	9029886
Chrysene	ug/g	0.37	0.46	0.0050	0.19	<0.050	0.050	<0.0050	0.0050	9029886
Dibenzo(a,h)anthracene	ug/g	0.061	0.093	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
Fluoranthene	ug/g	0.86	0.99	0.0050	0.51	<0.050	0.050	<0.0050	0.0050	9029886
Fluorene	ug/g	0.024	0.048	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
Indeno(1,2,3-cd)pyrene	ug/g	0.19	0.31	0.0050	0.12	<0.050	0.050	<0.0050	0.0050	9029886
1-Methylnaphthalene	ug/g	0.021	0.027	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
2-Methylnaphthalene	ug/g	0.022	0.026	0.0050	<0.050	<0.050	0.050	<0.0050	0.0050	9029886
Naphthalene	ug/g	0.0078	0.016	0.0050	<0.050	<0.050	0.050	0.0056	0.0050	9029886
Phenanthrene	ug/g	0.47	0.40	0.0050	0.36	<0.050	0.050	0.010	0.0050	9029886
Pyrene	ug/g	0.71	0.82	0.0050	0.38	<0.050	0.050	<0.0050	0.0050	9029886
Surrogate Recovery (%)										
D10-Anthracene	%	95	95		99	106		100		9029886
D14-Terphenyl (FS)	%	111	102		102	98		105		9029886
D8-Acenaphthylene	%	81	85		88	85		89		9029886
RDL = Reportable Detection	Limit									



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

# O.REG 153 PAHS (SOIL)

Bureau Veritas ID		XMH387			XMH388	XMH389	XMH390	XMH391		
Sampling Date		2023/10/26 12:00			2023/10/26 12:00	2023/10/30 14:00	2023/10/30 14:00	2023/10/26 12:00		
COC Number		961363-03-01			961363-03-01	961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-10 AS1	RDL	QC Batch	BH-10 SS2	BH-11 SS1	BH-11 SS2	DUP 1	RDL	QC Batch
Calculated Parameters	•	•	•		•	•		•	•	
Methylnaphthalene, 2-(1-)	ug/g	<0.071	0.071	9024160	<0.0071	<0.0071	<0.0071	<0.0071	0.0071	9025209
Polyaromatic Hydrocarbons				Į.		•	1			
Acenaphthene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
Acenaphthylene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
Anthracene	ug/g	<0.050	0.050	9029886	<0.0050	0.016	<0.0050	<0.0050	0.0050	9029886
Benzo(a)anthracene	ug/g	<0.050	0.050	9029886	<0.0050	0.041	<0.0050	<0.0050	0.0050	9029886
Benzo(a)pyrene	ug/g	<0.050	0.050	9029886	<0.0050	0.036	<0.0050	<0.0050	0.0050	9029886
Benzo(b/j)fluoranthene	ug/g	<0.050	0.050	9029886	<0.0050	0.053	<0.0050	<0.0050	0.0050	9029886
Benzo(g,h,i)perylene	ug/g	<0.050	0.050	9029886	<0.0050	0.016	<0.0050	<0.0050	0.0050	9029886
Benzo(k)fluoranthene	ug/g	<0.050	0.050	9029886	<0.0050	0.019	<0.0050	<0.0050	0.0050	9029886
Chrysene	ug/g	<0.050	0.050	9029886	<0.0050	0.038	<0.0050	<0.0050	0.0050	9029886
Dibenzo(a,h)anthracene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
Fluoranthene	ug/g	<0.050	0.050	9029886	<0.0050	0.089	0.0055	<0.0050	0.0050	9029886
Fluorene	ug/g	<0.050	0.050	9029886	<0.0050	0.0070	<0.0050	<0.0050	0.0050	9029886
Indeno(1,2,3-cd)pyrene	ug/g	<0.050	0.050	9029886	<0.0050	0.015	<0.0050	<0.0050	0.0050	9029886
1-Methylnaphthalene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
2-Methylnaphthalene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
Naphthalene	ug/g	<0.050	0.050	9029886	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	9029886
Phenanthrene	ug/g	<0.050	0.050	9029886	<0.0050	0.068	<0.0050	<0.0050	0.0050	9029886
Pyrene	ug/g	<0.050	0.050	9029886	<0.0050	0.073	<0.0050	<0.0050	0.0050	9029886
Surrogate Recovery (%)										
D10-Anthracene	%	118		9029886	97	102	98	91		9029886
D14-Terphenyl (FS)	%	97		9029886	100	104	103	91		9029886
D8-Acenaphthylene	%	84		9029886	82	91	84	74		9029886
RDL = Reportable Detection	Limit									
1										



Client Project #: OTT-23002538-A0

Sampler Initials: LW

# O.REG 153 PAHS (SOIL)

Bureau Veritas ID		XMH392		
Sampling Date		2023/10/30		
		14:00		
COC Number		961363-03-01		
	UNITS	DUP 3	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	9025209
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.0050	0.0050	9029886
Acenaphthylene	ug/g	<0.0050	0.0050	9029886
Anthracene	ug/g	<0.0050	0.0050	9029886
Benzo(a)anthracene	ug/g	0.0082	0.0050	9029886
Benzo(a)pyrene	ug/g	0.0070	0.0050	9029886
Benzo(b/j)fluoranthene	ug/g	0.011	0.0050	9029886
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	9029886
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	9029886
Chrysene	ug/g	0.0094	0.0050	9029886
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	9029886
Fluoranthene	ug/g	0.018	0.0050	9029886
Fluorene	ug/g	<0.0050	0.0050	9029886
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	9029886
1-Methylnaphthalene	ug/g	<0.0050	0.0050	9029886
2-Methylnaphthalene	ug/g	<0.0050	0.0050	9029886
Naphthalene	ug/g	<0.0050	0.0050	9029886
Phenanthrene	ug/g	0.018	0.0050	9029886
Pyrene	ug/g	0.016	0.0050	9029886
Surrogate Recovery (%)				
D10-Anthracene	%	99		9029886
D14-Terphenyl (FS)	%	104		9029886
D8-Acenaphthylene	%	86		9029886
RDL = Reportable Detection L QC Batch = Quality Control Ba				



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH375			XMH375			XMH376		
Sampling Date		2023/10/26			2023/10/26			2023/10/26		
		14:00			14:00			14:00		
COC Number		961363-03-01			961363-03-01			961363-03-01		
	UNITS	BH-1 SS2	RDL	QC Batch	BH-1 SS2 Lab-Dup	RDL	QC Batch	DUP 2	RDL	QC Batch
Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	9023519				<0.050	0.050	9023519
Volatile Organics	•			•		•				•
Acetone (2-Propanone)	ug/g	<0.49	0.49	9029936				<0.49	0.49	9029936
Benzene	ug/g	<0.0060	0.0060	9029936				<0.0060	0.0060	9029936
Bromodichloromethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Bromoform	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Bromomethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Carbon Tetrachloride	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Chlorobenzene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Chloroform	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Dibromochloromethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,1-Dichloroethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,2-Dichloroethane	ug/g	<0.049	0.049	9029936				<0.049	0.049	9029936
1,1-Dichloroethylene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,2-Dichloropropane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9029936				<0.030	0.030	9029936
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Ethylbenzene	ug/g	<0.010	0.010	9029936				<0.010	0.010	9029936
Ethylene Dibromide	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Hexane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9029936				<0.049	0.049	9029936
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	9029936				<0.40	0.40	9029936
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9029936				<0.40	0.40	9029936
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Styrene	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
BDI - Papartable Detection Limit								•		

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH375			XMH375			XMH376		
Sampling Date		2023/10/26			2023/10/26			2023/10/26		
Sampling Date		14:00			14:00			14:00		
COC Number		961363-03-01			961363-03-01			961363-03-01		
	UNITS	BH-1 SS2	RDL	QC Batch	BH-1 SS2 Lab-Dup	RDL	QC Batch	DUP 2	RDL	QC Batch
Tetrachloroethylene	ug/g	0.16	0.040	9029936				0.27	0.040	9029936
Toluene	ug/g	<0.020	0.020	9029936				<0.020	0.020	9029936
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Trichloroethylene	ug/g	<0.010	0.010	9029936				<0.010	0.010	9029936
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9029936				<0.040	0.040	9029936
Vinyl Chloride	ug/g	<0.019	0.019	9029936				<0.019	0.019	9029936
p+m-Xylene	ug/g	<0.020	0.020	9029936				<0.020	0.020	9029936
o-Xylene	ug/g	<0.020	0.020	9029936				<0.020	0.020	9029936
Total Xylenes	ug/g	<0.020	0.020	9029936				<0.020	0.020	9029936
F1 (C6-C10)	ug/g	<10	10	9029936				<10	10	9029936
F1 (C6-C10) - BTEX	ug/g	<10	10	9029936				<10	10	9029936
F2-F4 Hydrocarbons										
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	9030166	<10	10	9030166	<10	10	9030166
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	9030166	<50	50	9030166	<50	50	9030166
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	9030166	<50	50	9030166	<50	50	9030166
Reached Baseline at C50	ug/g	Yes		9030166	Yes		9030166	Yes		9030166
Surrogate Recovery (%)	•		-	•	•	•				•
o-Terphenyl	%	93		9030166	95		9030166	91		9030166
4-Bromofluorobenzene	%	99		9029936				99		9029936
D10-o-Xylene	%	108		9029936				112		9029936
D4-1,2-Dichloroethane	%	88		9029936				89		9029936
D8-Toluene	%	102		9029936				101		9029936

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH377		XMH378	XMH379		
Sampling Date		2023/10/26		2023/10/30	2023/10/30		
Sampling Date		14:00		10:00	10:00		
COC Number		961363-03-01		961363-03-01	961363-03-01		
	UNITS	BH-1 SS3	QC Batch	BH-2 AS3	BH-2 SS1	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	9023519	<0.050	<0.050	0.050	9025211
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.49	9029936	<0.49	<0.49	0.49	9029936
Benzene	ug/g	<0.0060	9029936	<0.0060	<0.0060	0.0060	9029936
Bromodichloromethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Bromoform	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Bromomethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Carbon Tetrachloride	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Chlorobenzene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Chloroform	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Dibromochloromethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,2-Dichlorobenzene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,3-Dichlorobenzene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,4-Dichlorobenzene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,1-Dichloroethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,2-Dichloroethane	ug/g	<0.049	9029936	<0.049	<0.049	0.049	9029936
1,1-Dichloroethylene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
cis-1,2-Dichloroethylene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
trans-1,2-Dichloroethylene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,2-Dichloropropane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
cis-1,3-Dichloropropene	ug/g	<0.030	9029936	<0.030	<0.030	0.030	9029936
trans-1,3-Dichloropropene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Ethylbenzene	ug/g	<0.010	9029936	<0.010	<0.010	0.010	9029936
Ethylene Dibromide	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Hexane	ug/g	<0.040	9029936	0.90	<0.040	0.040	9029936
Methylene Chloride(Dichloromethane)	ug/g	<0.049	9029936	<0.049	<0.049	0.049	9029936
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	9029936	<0.40	<0.40	0.40	9029936
Methyl Isobutyl Ketone	ug/g	<0.40	9029936	<0.40	<0.40	0.40	9029936
Methyl t-butyl ether (MTBE)	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Styrene	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,1,1,2-Tetrachloroethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,1,2,2-Tetrachloroethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Tetrachloroethylene	ug/g	0.90	9029936	<0.040	<0.040	0.040	9029936
RDL = Reportable Detection Limit	3,0	1.	1	1	1	I.	



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH377		XMH378	XMH379		
Sampling Date		2023/10/26 14:00		2023/10/30 10:00	2023/10/30 10:00		
COC Number		961363-03-01		961363-03-01	961363-03-01		
	UNITS	BH-1 SS3	QC Batch	BH-2 AS3	BH-2 SS1	RDL	QC Batch
Toluene	ug/g	<0.020	9029936	<0.020	<0.020	0.020	9029936
1,1,1-Trichloroethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
1,1,2-Trichloroethane	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Trichloroethylene	ug/g	<0.010	9029936	<0.010	<0.010	0.010	9029936
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	9029936	<0.040	<0.040	0.040	9029936
Vinyl Chloride	ug/g	<0.019	9029936	<0.019	<0.019	0.019	9029936
p+m-Xylene	ug/g	<0.020	9029936	0.099	<0.020	0.020	9029936
o-Xylene	ug/g	<0.020	9029936	0.023	<0.020	0.020	9029936
Total Xylenes	ug/g	<0.020	9029936	0.12	<0.020	0.020	9029936
F1 (C6-C10)	ug/g	<10	9029936	50	<10	10	9029936
F1 (C6-C10) - BTEX	ug/g	<10	9029936	50	<10	10	9029936
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	19	9030166	44	<10	10	9030166
F3 (C16-C34 Hydrocarbons)	ug/g	<50	9030166	<50	<50	50	9030166
F4 (C34-C50 Hydrocarbons)	ug/g	<50	9030166	<50	<50	50	9030166
Reached Baseline at C50	ug/g	Yes	9030166	Yes	Yes		9030166
Surrogate Recovery (%)	•		•				•
o-Terphenyl	%	92	9030166	94	93		9030166
4-Bromofluorobenzene	%	100	9029936	96	100		9029936
D10-o-Xylene	%	105	9029936	108	103		9029936
D4-1,2-Dichloroethane	%	90	9029936	93	98		9029936
D8-Toluene	%	101	9029936	101	98		9029936
RDL = Reportable Detection Limit	•	•	•	•	-		
QC Batch = Quality Control Batch							



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Sampling Date   2023/10/27   15:00   2023/10/27   09:30   90	<u></u>					i					
15:00   15:00   09:30   09:30   09:30   09:30   09:30   00:3	Bureau Veritas ID	<u> </u>	XMH380		XMH381		XMH382		XMH383		
Calculated Parameters	Sampling Date										
Calculated Parameters   1,3-Dichloropropene (cis+trans)   ug/g   < 0.050   0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   <	COC Number		961363-03-01		961363-03-01		961363-03-01		961363-03-01		
1,3-Dichloropropene (cis+trans)   ug/g   < 0.050   0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.050   < 0.0		UNITS	BH-6 SS1	RDL	BH-6 SS2	RDL	BH-7 SS2A	RDL	BH-7 SS2B	RDL	QC Batch
Volatile Organics	Calculated Parameters										
Acetone (2-Propanone)         ug/g         < 0.49         0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.49         < 0.040         < 0.040         < 0.040         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.060         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040	1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	9025211
Benzene	Volatile Organics										
Bromodichloromethane         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         0.040         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <	Acetone (2-Propanone)	ug/g	<0.49	0.49	<0.49	0.49	<0.49	0.49	<0.49	0.49	9029156
Bromoform	Benzene	ug/g	<0.0060	0.0060	<0.0060	0.0060	<0.0060	0.0060	<0.0060	0.0060	9029156
Bromomethane	Bromodichloromethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Carbon Tetrachloride         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040	Bromoform	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Chlorobenzene	Bromomethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Chloroform         ug/g         < 0.040         0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040         < 0.040	Carbon Tetrachloride	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Dibromochloromethane	Chlorobenzene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,2-Dichlorobenzene         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <	Chloroform	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,3-Dichlorobenzene         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040 <t< td=""><td>Dibromochloromethane</td><td>ug/g</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>9029156</td></t<>	Dibromochloromethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,4-Dichlorobenzene         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <	1,2-Dichlorobenzene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Dichlorodifluoromethane (FREON 12)   ug/g   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   <0.040   0.040   0.040   <0.040   0.040   0.040   0.040   <0.040   0.040	1,3-Dichlorobenzene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,1-Dichloroethane         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.049         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040 <t< td=""><td>1,4-Dichlorobenzene</td><td>ug/g</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>9029156</td></t<>	1,4-Dichlorobenzene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,2-Dichloroethane         ug/g         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.049         0.049         <0.040         0.040         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040	Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,1-Dichloroethylene         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040	1,1-Dichloroethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
cis-1,2-Dichloroethylene         ug/g         <0.040         0.040         <0.040         0.040         <0.040         0.040         <0.040         0.040	1,2-Dichloroethane	ug/g	<0.049	0.049	<0.049	0.049	<0.049	0.049	<0.049	0.049	9029156
trans-1,2-Dichloroethylene ug/g <0.040 0.040 <0.040 0.030 0.	1,1-Dichloroethylene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,2-Dichloropropane         ug/g         <0.040         0.040         <0.040         <0.040         <0.040         0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040 <t< td=""><td>cis-1,2-Dichloroethylene</td><td>ug/g</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>&lt;0.040</td><td>0.040</td><td>9029156</td></t<>	cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
cis-1,3-Dichloropropene         ug/g         <0.030         0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.030         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.049         <0.049         <0.049         <0.049         <0.040         <0.040         <0.040         <0.040         <0.049         <0.049         <0.049         <0.049         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040         <0.040	trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
trans-1,3-Dichloropropene ug/g <0.040 0.040 <0.040 0.0	1,2-Dichloropropane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Ethylbenzene         ug/g         <0.010         0.010         <0.010         0.010         <0.010         0.010         <0.020 (1)         0.020 (2)           Ethylene Dibromide         ug/g         <0.040	cis-1,3-Dichloropropene	ug/g	<0.030	0.030	<0.030	0.030	<0.030	0.030	<0.030	0.030	9029156
Ethylene Dibromide         ug/g         <0.040         0.040         <0.040         0.040         <0.040         0.040         <0.040         0.040         <0.040         0.040         9           Hexane         ug/g         <0.040	trans-1,3-Dichloropropene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Hexane         ug/g         <0.040         0.040         0.14         0.040         <0.040         0.040         <0.040         0.040         0.040         9           Methylene Chloride(Dichloromethane)         ug/g         <0.049	Ethylbenzene	ug/g	<0.010	0.010	<0.010	0.010	<0.010	0.010	<0.020 (1)	0.020	9029156
Methylene Chloride(Dichloromethane)         ug/g         <0.049         0.049         <0.58 (1)         0.58         <0.049         0.049         <0.049         9           Methyl Ethyl Ketone (2-Butanone)         ug/g         <0.40	Ethylene Dibromide	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Methyl Ethyl Ketone (2-Butanone) ug/g <0.40 0.40 <0.40 0.40 <0.40 0.40 <0.40 0.40	Hexane	ug/g	<0.040	0.040	0.14	0.040	<0.040	0.040	<0.040	0.040	9029156
, , , , , , , , , , , , , , , , , , , ,	Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	<0.58 (1)	0.58	<0.049	0.049	<0.049	0.049	9029156
	Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	9029156
	Methyl Isobutyl Ketone	ug/g	<0.40	0.40	<0.40	0.40	<0.40	0.40	<0.40	0.40	9029156
Methyl t-butyl ether (MTBE) ug/g <0.040 0.040 <0.040 0.040 0.040 <0.040 0.040 0.040 0.040 9	Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
	Styrene	t	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
	1,1,1,2-Tetrachloroethane		<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,1,2,2-Tetrachloroethane ug/g <0.040 0.040 <0.040 0.040 0.040 <0.040 0.040 0.040 0.040 0.040 9	1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) The detection limit was raised due to matrix interference.



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH380		XMH381		XMH382		XMH383		
Sampling Date		2023/10/27		2023/10/27		2023/10/27		2023/10/27		
Sampling Date		15:00		15:00		09:30		09:30		
COC Number		961363-03-01		961363-03-01		961363-03-01		961363-03-01		
	UNITS	BH-6 SS1	RDL	BH-6 SS2	RDL	BH-7 SS2A	RDL	BH-7 SS2B	RDL	QC Batch
Tetrachloroethylene	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Toluene	ug/g	<0.020	0.020	<0.020	0.020	<0.020	0.020	<0.020	0.020	9029156
1,1,1-Trichloroethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
1,1,2-Trichloroethane	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Trichloroethylene	ug/g	<0.010	0.010	<0.010	0.010	<0.010	0.010	<0.010	0.010	9029156
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	<0.040	0.040	<0.040	0.040	<0.040	0.040	9029156
Vinyl Chloride	ug/g	<0.019	0.019	<0.019	0.019	<0.019	0.019	<0.019	0.019	9029156
p+m-Xylene	ug/g	<0.020	0.020	0.066	0.020	<0.020	0.020	<0.020	0.020	9029156
o-Xylene	ug/g	<0.020	0.020	<0.020	0.020	<0.020	0.020	<0.020	0.020	9029156
Total Xylenes	ug/g	<0.020	0.020	0.066	0.020	<0.020	0.020	<0.020	0.020	9029156
F1 (C6-C10)	ug/g	<10	10	26	10	<10	10	32	10	9029156
F1 (C6-C10) - BTEX	ug/g	<10	10	26	10	<10	10	32	10	9029156
F2-F4 Hydrocarbons	•				•					•
F2 (C10-C16 Hydrocarbons)	ug/g	<15	15	34	10	<10	10	<20	20	9030166
F3 (C16-C34 Hydrocarbons)	ug/g	<60	60	<50	50	<50	50	<95	95	9030166
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	<50	50	<50	50	<50	50	9030166
Reached Baseline at C50	ug/g	Yes		Yes		Yes		Yes		9030166
Surrogate Recovery (%)					•			•		•
o-Terphenyl	%	93		92		94		97		9030166
4-Bromofluorobenzene	%	121		101		96		94		9029156
D10-o-Xylene	%	99		108		89		98		9029156
D4-1,2-Dichloroethane	%	93		99		93		95		9029156
D8-Toluene	%	89		93		98		99		9029156
RDL = Reportable Detection Limit								•	-	•

RDL = Reportable Detection Limit



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Puranu Varitas ID	1	VMALIZOA	VMLIDOE	VMLIDOC	VMLI207	VMILIZOO		
Bureau Veritas ID		XMH384	XMH385	XMH386	XMH387	XMH388		
Sampling Date		2023/10/27 09:00	2023/10/26 11:00	2023/10/26 11:00	2023/10/26 12:00	2023/10/26 12:00		
COC Number		961363-03-01	961363-03-01	961363-03-01	961363-03-01	961363-03-01		
COC NUMBER								
	UNITS	BH-8 AS3	BH-9 AS1	BH-9 SS2	BH-10 AS1	BH-10 SS2	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	9025211
Volatile Organics								
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	<0.49	<0.49	0.49	9029156
Benzene	ug/g	0.092	<0.0060	0.029	<0.0060	<0.0060	0.0060	9029156
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Bromoform	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Bromomethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Chloroform	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	9029156
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	9029156
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Ethylbenzene	ug/g	0.14	0.010	0.14	<0.010	<0.010	0.010	9029156
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Hexane	ug/g	0.26	<0.040	0.32	<0.040	<0.040	0.040	9029156
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	<0.049	<0.049	0.049	9029156
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	9029156
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	9029156
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Styrene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
RDL = Reportable Detection Limit	•		•	•	•	•	•	



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Sampling Date	UNITS	2023/10/27 09:00 961363-03-01	2023/10/26 11:00 961363-03-01	2023/10/26 11:00	2023/10/26 12:00	2023/10/26		
	UNITS			11:00	12.00	42.00		
COC Number	UNITS	961363-03-01	061262 02 01		12.00	12:00		
	UNITS		301303-03-01	961363-03-01	961363-03-01	961363-03-01		
		BH-8 AS3	BH-9 AS1	BH-9 SS2	BH-10 AS1	BH-10 SS2	RDL	QC Batch
Гoluene	ug/g	0.063	<0.020	0.10	<0.020	<0.020	0.020	9029156
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	9029156
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	<0.019	<0.019	0.019	9029156
o+m-Xylene	ug/g	0.38	0.039	0.40	<0.020	<0.020	0.020	9029156
o-Xylene	ug/g	0.067	<0.020	0.12	<0.020	<0.020	0.020	9029156
Total Xylenes	ug/g	0.45	0.039	0.52	<0.020	<0.020	0.020	9029156
-1 (C6-C10)	ug/g	<10	<10	14	<10	<10	10	9029156
-1 (C6-C10) - BTEX	ug/g	<10	<10	13	<10	<10	10	9029156
F2-F4 Hydrocarbons	•							•
-2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	26	<10	<10	10	9030166
-3 (C16-C34 Hydrocarbons)	ug/g	170	150	<50	110	<50	50	9030166
-4 (C34-C50 Hydrocarbons)	ug/g	510	450	<50	430	<50	50	9030166
Reached Baseline at C50	ug/g	No	No	Yes	No	Yes		9030166
Surrogate Recovery (%)								
o-Terphenyl	%	89	94	91	90	89		9030166
4-Bromofluorobenzene	%	94	92	126	95	94		9029156
D10-o-Xylene	%	91	81	117	90	86		9029156
D4-1,2-Dichloroethane	%	104	92	100	94	92		9029156
D8-Toluene	%	98	97	97	97	96		9029156
RDL = Reportable Detection Limit								



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH389	XMH390	XMH391	XMH392		
		2023/10/30	2023/10/30	2023/10/26	2023/10/30		
Sampling Date		14:00	14:00	12:00	14:00		
COC Number		961363-03-01	961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-11 SS1	BH-11 SS2	DUP 1	DUP 3	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	9025211
Volatile Organics	ug/g	<0.030	<0.030	<0.030	<0.030	0.030	9023211
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	<0.49	0.49	9029156
Benzene	ug/g	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	9029156
Bromodichloromethane	ug/g	<0.040	<0.000	<0.040	<0.040	0.040	9029156
Bromoform		<0.040	<0.040	<0.040	<0.040	0.040	9029156
Bromomethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Carbon Tetrachloride	ug/g	<0.040		<0.040		0.040	
Chlorobenzene	ug/g		<0.040		<0.040		9029156
Chloroform	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	9029156
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	0.030	9029156
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	9029156
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Hexane	ug/g	0.044	<0.040	<0.040	<0.040	0.040	9029156
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	9029156
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	9029156
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	9029156
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Styrene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
RDL = Reportable Detection Limit		<u> </u>		<u>I</u>	<u> </u>	1	I
OC Patch = Quality Control Ratch							



Client Project #: OTT-23002538-A0

Sampler Initials: LW

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

Bureau Veritas ID		XMH389	XMH390	XMH391	XMH392		
	+	2023/10/30	2023/10/30	2023/10/26	2023/10/30		
Sampling Date		14:00	14:00	12:00	14:00		
COC Number		961363-03-01	961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-11 SS1	BH-11 SS2	DUP 1	DUP 3	RDL	QC Batch
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	9029156
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	9029156
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	9029156
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	<0.019	0.019	9029156
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	9029156
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	9029156
Total Xylenes	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	9029156
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	9029156
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	9029156
F2-F4 Hydrocarbons	•						,
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	<10	24	10	9030166
F3 (C16-C34 Hydrocarbons)	ug/g	69	<50	<50	57	50	9030166
F4 (C34-C50 Hydrocarbons)	ug/g	88	<50	<50	<50	50	9030166
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes		9030166
Surrogate Recovery (%)							
o-Terphenyl	%	80	95	96	97		9030166
4-Bromofluorobenzene	%	129	95	95	94		9029156
D10-o-Xylene	%	115	84	83	83		9029156
D4-1,2-Dichloroethane	%	101	91	91	94		9029156
D8-Toluene	%	92	95	95	96		9029156
RDL = Reportable Detection Limit							



reau Veritas Job #: C3Y3431 exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **RESULTS OF ANALYSES OF SOIL**

Bureau Veritas ID		XMH375	XMH376	XMH377		XMH378	XMH379		
Sampling Date		2023/10/26 14:00	2023/10/26 14:00	2023/10/26 14:00		2023/10/30 10:00	2023/10/30 10:00		
COC Number		961363-03-01	961363-03-01	961363-03-01		961363-03-01	961363-03-01		
	UNITS	BH-1 SS2	DUP 2	BH-1 SS3	QC Batch	BH-2 AS3	BH-2 SS1	RDL	QC Batch
Inorganics									
Moisture	%	9.5	19	8.0	9026404	4.1	9.8	1.0	9026369
RDL = Reportable Detection Limit									
QC Batch = Quality Cont	rol Batch								

Bureau Veritas ID		XMH380		XMH381		XMH382	XMH383	XMH384		
Sampling Date		2023/10/27		2023/10/27		2023/10/27	2023/10/27	2023/10/27		
		15:00		15:00		09:30	09:30	09:00		
COC Number		961363-03-01		961363-03-01		961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-6 SS1	QC Batch	BH-6 SS2	QC Batch	BH-7 SS2A	BH-7 SS2B	BH-8 AS3	RDL	QC Batch
Inorganics										
Moisture	%	8.6	9026369	20	9026404	12	11	3.6	1.0	9026369
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										

Bureau Veritas ID XMH386 XMH387 XMH388 XMH389 XMH385 2023/10/26 2023/10/26 2023/10/26 2023/10/26 2023/10/30 Sampling Date 11:00 11:00 12:00 12:00 14:00 COC Number 961363-03-01 961363-03-01 961363-03-01 961363-03-01 961363-03-01 UNITS BH-9 AS1 BH-9 SS2 BH-10 AS1 BH-10 SS2 BH-11 SS1 QC Batch RDL QC Batch Inorganics

Moisture % 4.3 9026404 7.8 7.7 16 5.5 1.0 9026369

RDL = Reportable Detection Limit QC Batch = Quality Control Batch

Bureau Veritas ID		XMH390		XMH391		XMH392		
Sampling Date		2023/10/30		2023/10/26		2023/10/30		
. 0		14:00		12:00		14:00		
COC Number		961363-03-01		961363-03-01		961363-03-01		
	UNITS	BH-11 SS2	QC Batch	DUP 1	QC Batch	DUP 3	RDL	QC Batch
Inorganics								
Moisture	%	11	9026369	18	9026404	8.6	1.0	9026369
RDL = Reportable Detec	tion Limit		•	•	•		•	
OC Batch = Quality Cont	rol Batch							



Client Project #: OTT-23002538-A0

Sampler Initials: LW

### PETROLEUM HYDROCARBONS (CCME)

			•	•		
Bureau Veritas ID		XMH384	XMH385	XMH387		
Sampling Date		2023/10/27 09:00	2023/10/26 11:00	2023/10/26 12:00		
COC Number		961363-03-01	961363-03-01	961363-03-01		
	UNITS	BH-8 AS3	BH-9 AS1	BH-10 AS1	RDL	QC Batch
F2-F4 Hydrocarbons						
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	2500	3100	2400	100	9038445
RDL = Reportable Detection Limit						



Matrix: Soil

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

**Bureau Veritas ID:** XMH375 **Collected:** 2023/10/26 Sample ID: BH-1 SS2

Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027882	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9023519	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9032757	2023/11/07	2023/11/07	Prgya Panchal
Conductivity	AT	9031089	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9027668	2023/11/03	2023/11/07	Daniel Teclu
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029936	N/A	2023/11/06	Blair Gannon

Bureau Veritas ID: XMH375 Dup **Collected:** 2023/10/26 Sample ID: BH-1 SS2 Shipped:

Matrix: Soil **Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin

**Collected:** 2023/10/26 **Bureau Veritas ID:** XMH376 Sample ID: DUP 2

Shipped:

Matrix: Soil **Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9023519	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030462	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029936	N/A	2023/11/07	Blair Gannon



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

Bureau Veritas ID: XMH377 Sample ID: BH-1 SS3 Collected: Shipped:

2023/10/26

Matrix: Soil

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027882	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9023519	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030462	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031089	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9027668	2023/11/03	2023/11/07	Daniel Teclu
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029936	N/A	2023/11/07	Blair Gannon

**Bureau Veritas ID:** XMH378 Sample ID: BH-2 AS3 Matrix: Soil

Collected: 2023/10/30

Shipped: Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031270	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029936	N/A	2023/11/07	Blair Gannon

Bureau Veritas ID: XMH379 Sample ID: BH-2 SS1

Matrix: Soil

Collected: 2023/10/30

Shipped:

Received: 2023/11/01

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst Methylnaphthalene Sum CALC 9024160 2023/11/07 **Automated Statchk** N/A Hot Water Extractable Boron ICP 9027893 2023/11/03 2023/11/06 Jaswinder Kaur 1,3-Dichloropropene Sum CALC 9025211 N/A 2023/11/07 **Automated Statchk** Free (WAD) Cyanide TECH 9030480 2023/11/06 2023/11/06 Jency Sara Johnson Conductivity ΑТ 9031062 2023/11/06 2023/11/06 Kien Tran Hexavalent Chromium in Soil by IC 9030577 Lusine Khachatryan IC/SPEC 2023/11/06 2023/11/07 Petroleum Hydrocarbons F2-F4 in Soil GC/FID 9030166 2023/11/06 2023/11/06 Agnieszka Brzuzy-Snopko 9029430 Acid Extractable Metals by ICPMS ICP/MS 2023/11/04 2023/11/07 Daniel Teclu



Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

**Bureau Veritas ID:** XMH379

Sample ID: BH-2 SS1 Matrix: Soil

**Collected:** 2023/10/30 Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029936	N/A	2023/11/07	Blair Gannon

Bureau Veritas ID: XMH380

Sample ID: BH-6 SS1

Matrix: Soil

**Collected:** 2023/10/27 Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan

Bureau Veritas ID: XMH380 Dup

Sample ID: BH-6 SS1

Matrix: Soil

Collected: Shipped:

2023/10/27

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan

Bureau Veritas ID: XMH381

Sample ID: BH-6 SS2

Matrix: Soil **Collected:** 2023/10/27 Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027882	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030462	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031089	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9027668	2023/11/03	2023/11/07	Daniel Teclu



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

**Bureau Veritas ID:** XMH381 Sample ID: BH-6 SS2

Matrix: Soil

**Collected:** 2023/10/27

Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielvan

Bureau Veritas ID: XMH382 Sample ID: BH-7 SS2A

Matrix: Soil

**Collected:** 2023/10/27

Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan

Bureau Veritas ID: XMH383

Sample ID: BH-7 SS2B

Matrix: Soil

**Collected:** 2023/10/27

Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

Bureau Veritas ID: XMH384

Sample ID: BH-8 AS3 Matrix: Soil

**Collected:** 2023/10/27

Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9030355	2023/11/06	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
F4G (CCME Hydrocarbons Gravimetric)	BAL	9038445	2023/11/09	2023/11/09	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan

**Bureau Veritas ID:** XMH385 Sample ID: BH-9 AS1

Matrix: Soil

**Collected:** 2023/10/26 **Shipped:** 

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9030355	2023/11/06	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030462	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031089	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
F4G (CCME Hydrocarbons Gravimetric)	BAL	9038445	2023/11/09	2023/11/09	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	9027668	2023/11/03	2023/11/07	Daniel Teclu
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/06	Anna Gabrielyan

**Bureau Veritas ID:** XMH386 **Collected:** 2023/10/26

Sample ID: BH-9 SS2 Matrix: Soil Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

### **TEST SUMMARY**

**Bureau Veritas ID:** XMH386

Shipped:

**Collected:** 2023/10/26

Sample ID: BH-9 SS2 Matrix: Soil

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/06	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielvan

**Bureau Veritas ID:** XMH387 Sample ID: BH-10 AS1 **Collected:** 2023/10/26

Shipped:

Matrix: Soil

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9024160	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9030355	2023/11/06	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031270	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
F4G (CCME Hydrocarbons Gravimetric)	BAL	9038445	2023/11/09	2023/11/09	Rashmi Dubey
Acid Extractable Metals by ICPMS	ICP/MS	9029438	2023/11/04	2023/11/06	Japneet Gill
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030901	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan

**Bureau Veritas ID:** XMH388 Sample ID: BH-10 SS2

Matrix: Soil

Collected: 2023/10/26 Shipped:

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9025209	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9030369	2023/11/06	2023/11/06	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031270	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029438	2023/11/04	2023/11/06	Japneet Gill
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030901	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/06	Anna Gabrielyan



exp Services Inc Report Date: 2023/11/09

Client Project #: OTT-23002538-A0

Sampler Initials: LW

#### **TEST SUMMARY**

Bureau Veritas ID: XMH388 Dup

Shipped:

**Collected:** 2023/10/26

Sample ID: BH-10 SS2 Matrix: Soil

**Received:** 2023/11/01

**Test Description Date Analyzed** Instrumentation **Batch** Extracted Analyst Hot Water Extractable Boron ICP 9030369 2023/11/06 2023/11/06 Medhat Nasr

**Bureau Veritas ID:** XMH389

Collected:

2023/10/30

Sample ID: BH-11 SS1 Matrix: Soil

Shipped:

Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9025209	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/06	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/04	Anna Gabrielyan

**Bureau Veritas ID:** XMH390 Sample ID: BH-11 SS2 Matrix: Soil

Collected: Shipped:

2023/10/30

**Received:** 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9025209	N/A	2023/11/07	Automated Statchk
Hot Water Extractable Boron	ICP	9027893	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030480	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031062	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9030577	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9029430	2023/11/04	2023/11/07	Daniel Teclu
Moisture	BAL	9026369	N/A	2023/11/03	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030312	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/06	Anna Gabrielyan

Bureau Veritas ID: XMH391 DUP 1

Shipped:

**Collected:** 2023/10/26

Sample ID: Matrix: Soil

Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9025209	N/A	2023/11/07	Automated Statchk



Report Date: 2023/11/09

Matrix: Soil

Matrix:

Soil

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

#### **TEST SUMMARY**

Bureau Veritas ID: XMH391 Collected: 2023/10/26 Sample ID: DUP 1

Shipped:

Received: 2023/11/01

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9027882	2023/11/03	2023/11/06	Jaswinder Kaur
1,3-Dichloropropene Sum	CALC	9025211	N/A	2023/11/07	Automated Statchk
Free (WAD) Cyanide	TECH	9030462	2023/11/06	2023/11/06	Jency Sara Johnson
Conductivity	AT	9031089	2023/11/06	2023/11/06	Kien Tran
Hexavalent Chromium in Soil by IC	IC/SPEC	9031125	2023/11/06	2023/11/07	Lusine Khachatryan
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9030166	2023/11/06	2023/11/07	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9027668	2023/11/03	2023/11/07	Daniel Teclu
Moisture	BAL	9026404	N/A	2023/11/03	Ibadat Preet
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9029886	2023/11/05	2023/11/05	Joan Jin
pH CaCl2 EXTRACT	AT	9030865	2023/11/06	2023/11/06	Gurparteek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9024979	N/A	2023/11/07	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9029156	N/A	2023/11/06	Anna Gabrielyan

Bureau Veritas ID: XMH392 Collected: 2023/10/30 Sample ID: DUP 3

Shipped:

Received: 2023/11/01

**Test Description** Instrumentation **Batch** Extracted **Date Analyzed** Analyst N/A 2023/11/07 Methylnaphthalene Sum CALC 9025209 Automated Statchk Hot Water Extractable Boron ICP 9030355 2023/11/06 2023/11/06 Jaswinder Kaur 1,3-Dichloropropene Sum CALC 9025211 N/A 2023/11/07 **Automated Statchk** 2023/11/06 Free (WAD) Cyanide TECH 9030480 2023/11/06 Jency Sara Johnson Conductivity ΑТ 9031270 2023/11/06 2023/11/06 Kien Tran Hexavalent Chromium in Soil by IC IC/SPEC 9030577 2023/11/06 2023/11/07 Lusine Khachatryan Petroleum Hydrocarbons F2-F4 in Soil GC/FID 9030166 2023/11/06 2023/11/07 Agnieszka Brzuzy-Snopko Acid Extractable Metals by ICPMS 9029438 2023/11/04 ICP/MS 2023/11/06 Japneet Gill BAL 9026369 2023/11/03 Moisture N/A Joe Thomas PAH Compounds in Soil by GC/MS (SIM) GC/MS 9029886 2023/11/05 2023/11/05 Joan Jin pH CaCl2 EXTRACT ΑТ 9030901 2023/11/06 2023/11/06 Gurparteek KAUR Sodium Adsorption Ratio (SAR) CALC/MET 9024979 N/A 2023/11/07 Automated Statchk Volatile Organic Compounds and F1 PHCs GC/MSFD 9029156 N/A 2023/11/06 Anna Gabrielyan



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

#### **GENERAL COMMENTS**

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

Package 1	14.0°C
Package 2	10.0°C

Sample XMH380 [BH-6 SS1]: F2-F4 Analysis: Detection limit was raised due to background interference.

Sample XMH383 [BH-7 SS2B]: F2-F4 Analysis: Detection limit was raised due to background interference.

Sample XMH384 [BH-8 AS3]: PAH Anaylsis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XMH385 [BH-9 AS1]: PAH Anaylsis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Sample XMH387 [BH-10 AS1]: PAH Anaylsis: Due to the sample matrix, sample required dilution. Detection limit was adjusted accordingly.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix Spike		SPIKED	BLANK	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9029156	4-Bromofluorobenzene	2023/11/04	95	60 - 140	71	60 - 140	131	%		
9029156	D10-o-Xylene	2023/11/04	96	60 - 130	91	60 - 130	121	%		
9029156	D4-1,2-Dichloroethane	2023/11/04	100	60 - 140	98	60 - 140	99	%		
9029156	D8-Toluene	2023/11/04	101	60 - 140	103	60 - 140	97	%		
9029886	D10-Anthracene	2023/11/05	98	50 - 130	101	50 - 130	122	%		
9029886	D14-Terphenyl (FS)	2023/11/05	97	50 - 130	100	50 - 130	106	%		
9029886	D8-Acenaphthylene	2023/11/05	89	50 - 130	89	50 - 130	86	%		
9029936	4-Bromofluorobenzene	2023/11/06	100	60 - 140	100	60 - 140	99	%		
9029936	D10-o-Xylene	2023/11/06	95	60 - 130	99	60 - 130	103	%		
9029936	D4-1,2-Dichloroethane	2023/11/06	94	60 - 140	96	60 - 140	97	%		
9029936	D8-Toluene	2023/11/06	101	60 - 140	100	60 - 140	99	%		
9030166	o-Terphenyl	2023/11/06	89	60 - 130	93	60 - 130	98	%		
9026369	Moisture	2023/11/03							1.8	20
9026404	Moisture	2023/11/03							1.1	20
9027668	Acid Extractable Antimony (Sb)	2023/11/07	94	75 - 125	101	80 - 120	<0.20	ug/g	8.3	30
9027668	Acid Extractable Arsenic (As)	2023/11/07	96	75 - 125	99	80 - 120	<1.0	ug/g	1.2	30
9027668	Acid Extractable Barium (Ba)	2023/11/07	NC	75 - 125	95	80 - 120	<0.50	ug/g	1.8	30
9027668	Acid Extractable Beryllium (Be)	2023/11/07	93	75 - 125	96	80 - 120	<0.20	ug/g	15	30
9027668	Acid Extractable Boron (B)	2023/11/07	88	75 - 125	94	80 - 120	<5.0	ug/g	NC	30
9027668	Acid Extractable Cadmium (Cd)	2023/11/07	96	75 - 125	99	80 - 120	< 0.10	ug/g	7.0	30
9027668	Acid Extractable Chromium (Cr)	2023/11/07	98	75 - 125	97	80 - 120	<1.0	ug/g	4.9	30
9027668	Acid Extractable Cobalt (Co)	2023/11/07	94	75 - 125	99	80 - 120	<0.10	ug/g	4.7	30
9027668	Acid Extractable Copper (Cu)	2023/11/07	92	75 - 125	97	80 - 120	<0.50	ug/g	4.5	30
9027668	Acid Extractable Lead (Pb)	2023/11/07	NC	75 - 125	99	80 - 120	<1.0	ug/g	1.0	30
9027668	Acid Extractable Mercury (Hg)	2023/11/07	96	75 - 125	100	80 - 120	<0.050	ug/g	12	30
9027668	Acid Extractable Molybdenum (Mo)	2023/11/07	94	75 - 125	98	80 - 120	<0.50	ug/g	2.3	30
9027668	Acid Extractable Nickel (Ni)	2023/11/07	97	75 - 125	99	80 - 120	<0.50	ug/g	4.1	30
9027668	Acid Extractable Selenium (Se)	2023/11/07	96	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
9027668	Acid Extractable Silver (Ag)	2023/11/07	97	75 - 125	101	80 - 120	<0.20	ug/g	0.42	30
9027668	Acid Extractable Thallium (TI)	2023/11/07	96	75 - 125	101	80 - 120	<0.050	ug/g	0.34	30
9027668	Acid Extractable Uranium (U)	2023/11/07	99	75 - 125	102	80 - 120	<0.050	ug/g	0.0027	30
9027668	Acid Extractable Vanadium (V)	2023/11/07	96	75 - 125	95	80 - 120	<5.0	ug/g	4.1	30



exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9027668	Acid Extractable Zinc (Zn)	2023/11/07	NC	75 - 125	99	80 - 120	<5.0	ug/g	4.3	30
9027882	Hot Water Ext. Boron (B)	2023/11/06	118	75 - 125	101	75 - 125	<0.050	ug/g	3.1	40
9027893	Hot Water Ext. Boron (B)	2023/11/06	112	75 - 125	104	75 - 125	<0.050	ug/g	30	40
9029156	1,1,1,2-Tetrachloroethane	2023/11/04	99	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9029156	1,1,1-Trichloroethane	2023/11/04	103	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9029156	1,1,2,2-Tetrachloroethane	2023/11/04	96	60 - 140	71	60 - 130	<0.040	ug/g	NC	50
9029156	1,1,2-Trichloroethane	2023/11/04	98	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9029156	1,1-Dichloroethane	2023/11/04	105	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9029156	1,1-Dichloroethylene	2023/11/04	110	60 - 140	114	60 - 130	<0.040	ug/g	NC	50
9029156	1,2-Dichlorobenzene	2023/11/04	100	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9029156	1,2-Dichloroethane	2023/11/04	92	60 - 140	89	60 - 130	<0.049	ug/g	NC	50
9029156	1,2-Dichloropropane	2023/11/04	98	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9029156	1,3-Dichlorobenzene	2023/11/04	105	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9029156	1,4-Dichlorobenzene	2023/11/04	111	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9029156	Acetone (2-Propanone)	2023/11/04	95	60 - 140	98	60 - 140	<0.49	ug/g	NC	50
9029156	Benzene	2023/11/04	93	60 - 140	92	60 - 130	<0.0060	ug/g	NC	50
9029156	Bromodichloromethane	2023/11/04	103	60 - 140	118	60 - 130	<0.040	ug/g	NC	50
9029156	Bromoform	2023/11/04	82	60 - 140	60	60 - 130	<0.040	ug/g	NC	50
9029156	Bromomethane	2023/11/04	105	60 - 140	102	60 - 140	<0.040	ug/g	NC	50
9029156	Carbon Tetrachloride	2023/11/04	101	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9029156	Chlorobenzene	2023/11/04	99	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9029156	Chloroform	2023/11/04	105	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9029156	cis-1,2-Dichloroethylene	2023/11/04	101	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9029156	cis-1,3-Dichloropropene	2023/11/04	93	60 - 140	109	60 - 130	<0.030	ug/g	NC	50
9029156	Dibromochloromethane	2023/11/04	93	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9029156	Dichlorodifluoromethane (FREON 12)	2023/11/04	116	60 - 140	114	60 - 140	<0.040	ug/g	NC	50
9029156	Ethylbenzene	2023/11/04	92	60 - 140	84	60 - 130	<0.010	ug/g	NC	50
9029156	Ethylene Dibromide	2023/11/04	94	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9029156	F1 (C6-C10) - BTEX	2023/11/04					<10	ug/g	NC	30
9029156	F1 (C6-C10)	2023/11/04	95	60 - 140	95	80 - 120	<10	ug/g	NC	30
9029156	Hexane	2023/11/04	101	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
9029156	Methyl Ethyl Ketone (2-Butanone)	2023/11/04	92	60 - 140	90	60 - 140	<0.40	ug/g	NC	50



exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix Spike		SPIKED	BLANK	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9029156	Methyl Isobutyl Ketone	2023/11/04	88	60 - 140	109	60 - 130	<0.40	ug/g	NC	50
9029156	Methyl t-butyl ether (MTBE)	2023/11/04	96	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9029156	Methylene Chloride(Dichloromethane)	2023/11/04	103	60 - 140	112	60 - 130	<0.049	ug/g	NC	50
9029156	o-Xylene	2023/11/04	86	60 - 140	70	60 - 130	<0.020	ug/g	NC	50
9029156	p+m-Xylene	2023/11/04	97	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
9029156	Styrene	2023/11/04	99	60 - 140	80	60 - 130	<0.040	ug/g	NC	50
9029156	Tetrachloroethylene	2023/11/04	99	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9029156	Toluene	2023/11/04	94	60 - 140	86	60 - 130	<0.020	ug/g	NC	50
9029156	Total Xylenes	2023/11/04					<0.020	ug/g	NC	50
9029156	trans-1,2-Dichloroethylene	2023/11/04	102	60 - 140	114	60 - 130	<0.040	ug/g	NC	50
9029156	trans-1,3-Dichloropropene	2023/11/04	94	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9029156	Trichloroethylene	2023/11/04	100	60 - 140	100	60 - 130	<0.010	ug/g	NC	50
9029156	Trichlorofluoromethane (FREON 11)	2023/11/04	109	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9029156	Vinyl Chloride	2023/11/04	110	60 - 140	109	60 - 130	<0.019	ug/g	NC	50
9029430	Acid Extractable Antimony (Sb)	2023/11/07	88	75 - 125	100	80 - 120	<0.20	ug/g	3.9	30
9029430	Acid Extractable Arsenic (As)	2023/11/07	92	75 - 125	97	80 - 120	<1.0	ug/g	0.16	30
9029430	Acid Extractable Barium (Ba)	2023/11/07	NC	75 - 125	101	80 - 120	<0.50	ug/g	2.9	30
9029430	Acid Extractable Beryllium (Be)	2023/11/07	88	75 - 125	94	80 - 120	<0.20	ug/g	3.6	30
9029430	Acid Extractable Boron (B)	2023/11/07	80	75 - 125	90	80 - 120	<5.0	ug/g	0.59	30
9029430	Acid Extractable Cadmium (Cd)	2023/11/07	94	75 - 125	97	80 - 120	<0.10	ug/g	6.2	30
9029430	Acid Extractable Chromium (Cr)	2023/11/07	NC	75 - 125	97	80 - 120	<1.0	ug/g	0.13	30
9029430	Acid Extractable Cobalt (Co)	2023/11/07	88	75 - 125	97	80 - 120	<0.10	ug/g	2.4	30
9029430	Acid Extractable Copper (Cu)	2023/11/07	NC	75 - 125	96	80 - 120	<0.50	ug/g	6.5	30
9029430	Acid Extractable Lead (Pb)	2023/11/07	NC	75 - 125	98	80 - 120	<1.0	ug/g	0.73	30
9029430	Acid Extractable Mercury (Hg)	2023/11/07	90	75 - 125	99	80 - 120	<0.050	ug/g	5.6	30
9029430	Acid Extractable Molybdenum (Mo)	2023/11/07	93	75 - 125	96	80 - 120	<0.50	ug/g	2.4	30
9029430	Acid Extractable Nickel (Ni)	2023/11/07	87	75 - 125	98	80 - 120	<0.50	ug/g	5.8	30
9029430	Acid Extractable Selenium (Se)	2023/11/07	90	75 - 125	99	80 - 120	<0.50	ug/g	NC	30
9029430	Acid Extractable Silver (Ag)	2023/11/07	94	75 - 125	101	80 - 120	<0.20	ug/g	1.0	30
9029430	Acid Extractable Thallium (TI)	2023/11/07	90	75 - 125	99	80 - 120	<0.050	ug/g	3.3	30
9029430	Acid Extractable Uranium (U)	2023/11/07	93	75 - 125	100	80 - 120	<0.050	ug/g	0.21	30
9029430	Acid Extractable Vanadium (V)	2023/11/07	NC	75 - 125	96	80 - 120	<5.0	ug/g	1.5	30



exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix	Spike	SPIKED	BLANK	Method E	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9029430	Acid Extractable Zinc (Zn)	2023/11/07	NC	75 - 125	99	80 - 120	<5.0	ug/g	1.3	30
9029438	Acid Extractable Antimony (Sb)	2023/11/06	102	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
9029438	Acid Extractable Arsenic (As)	2023/11/06	103	75 - 125	100	80 - 120	<1.0	ug/g	0.75	30
9029438	Acid Extractable Barium (Ba)	2023/11/06	102	75 - 125	102	80 - 120	<0.50	ug/g	1.6	30
9029438	Acid Extractable Beryllium (Be)	2023/11/06	106	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
9029438	Acid Extractable Boron (B)	2023/11/06	104	75 - 125	106	80 - 120	<5.0	ug/g	13	30
9029438	Acid Extractable Cadmium (Cd)	2023/11/06	102	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
9029438	Acid Extractable Chromium (Cr)	2023/11/06	95	75 - 125	95	80 - 120	<1.0	ug/g	4.5	30
9029438	Acid Extractable Cobalt (Co)	2023/11/06	96	75 - 125	94	80 - 120	<0.10	ug/g	3.4	30
9029438	Acid Extractable Copper (Cu)	2023/11/06	99	75 - 125	99	80 - 120	<0.50	ug/g	3.1	30
9029438	Acid Extractable Lead (Pb)	2023/11/06	97	75 - 125	97	80 - 120	<1.0	ug/g	3.3	30
9029438	Acid Extractable Mercury (Hg)	2023/11/06	98	75 - 125	99	80 - 120	<0.050	ug/g	NC	30
9029438	Acid Extractable Molybdenum (Mo)	2023/11/06	99	75 - 125	94	80 - 120	<0.50	ug/g	NC	30
9029438	Acid Extractable Nickel (Ni)	2023/11/06	100	75 - 125	99	80 - 120	<0.50	ug/g	5.4	30
9029438	Acid Extractable Selenium (Se)	2023/11/06	104	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
9029438	Acid Extractable Silver (Ag)	2023/11/06	99	75 - 125	96	80 - 120	<0.20	ug/g	NC	30
9029438	Acid Extractable Thallium (TI)	2023/11/06	101	75 - 125	100	80 - 120	<0.050	ug/g	18	30
9029438	Acid Extractable Uranium (U)	2023/11/06	97	75 - 125	95	80 - 120	<0.050	ug/g	1.5	30
9029438	Acid Extractable Vanadium (V)	2023/11/06	97	75 - 125	95	80 - 120	<5.0	ug/g	3.9	30
9029438	Acid Extractable Zinc (Zn)	2023/11/06	98	75 - 125	98	80 - 120	<5.0	ug/g	4.2	30
9029886	1-Methylnaphthalene	2023/11/05	101	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9029886	2-Methylnaphthalene	2023/11/05	87	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
9029886	Acenaphthene	2023/11/05	101	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9029886	Acenaphthylene	2023/11/05	96	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
9029886	Anthracene	2023/11/05	107	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9029886	Benzo(a)anthracene	2023/11/05	100	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9029886	Benzo(a)pyrene	2023/11/05	87	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9029886	Benzo(b/j)fluoranthene	2023/11/05	104	50 - 130	106	50 - 130	<0.0050	ug/g	NC	40
9029886	Benzo(g,h,i)perylene	2023/11/05	80	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9029886	Benzo(k)fluoranthene	2023/11/05	105	50 - 130	109	50 - 130	<0.0050	ug/g	NC	40
9029886	Chrysene	2023/11/05	101	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9029886	Dibenzo(a,h)anthracene	2023/11/05	83	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40



exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9029886	Fluoranthene	2023/11/05	104	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
9029886	Fluorene	2023/11/05	102	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9029886	Indeno(1,2,3-cd)pyrene	2023/11/05	83	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9029886	Naphthalene	2023/11/05	92	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
9029886	Phenanthrene	2023/11/05	96	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
9029886	Pyrene	2023/11/05	110	50 - 130	113	50 - 130	<0.0050	ug/g	NC	40
9029936	1,1,1,2-Tetrachloroethane	2023/11/06	97	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9029936	1,1,1-Trichloroethane	2023/11/06	96	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9029936	1,1,2,2-Tetrachloroethane	2023/11/06	97	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9029936	1,1,2-Trichloroethane	2023/11/06	92	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9029936	1,1-Dichloroethane	2023/11/06	97	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9029936	1,1-Dichloroethylene	2023/11/06	96	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9029936	1,2-Dichlorobenzene	2023/11/06	94	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9029936	1,2-Dichloroethane	2023/11/06	87	60 - 140	90	60 - 130	<0.049	ug/g	NC	50
9029936	1,2-Dichloropropane	2023/11/06	92	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9029936	1,3-Dichlorobenzene	2023/11/06	99	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9029936	1,4-Dichlorobenzene	2023/11/06	106	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9029936	Acetone (2-Propanone)	2023/11/06	85	60 - 140	88	60 - 140	< 0.49	ug/g	NC	50
9029936	Benzene	2023/11/06	88	60 - 140	92	60 - 130	<0.0060	ug/g	NC	50
9029936	Bromodichloromethane	2023/11/06	99	60 - 140	102	60 - 130	< 0.040	ug/g	NC	50
9029936	Bromoform	2023/11/06	82	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
9029936	Bromomethane	2023/11/06	91	60 - 140	95	60 - 140	<0.040	ug/g	NC	50
9029936	Carbon Tetrachloride	2023/11/06	93	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9029936	Chlorobenzene	2023/11/06	98	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9029936	Chloroform	2023/11/06	99	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9029936	cis-1,2-Dichloroethylene	2023/11/06	96	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9029936	cis-1,3-Dichloropropene	2023/11/06	78	60 - 140	83	60 - 130	<0.030	ug/g	NC	50
9029936	Dibromochloromethane	2023/11/06	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9029936	Dichlorodifluoromethane (FREON 12)	2023/11/06	82	60 - 140	86	60 - 140	<0.040	ug/g	NC	50
9029936	Ethylbenzene	2023/11/06	90	60 - 140	90	60 - 130	<0.010	ug/g	NC	50
9029936	Ethylene Dibromide	2023/11/06	93	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9029936	F1 (C6-C10) - BTEX	2023/11/06					<10	ug/g	NC	30



exp Services Inc

Client Project #: OTT-23002538-A0

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9029936	F1 (C6-C10)	2023/11/06	96	60 - 140	93	80 - 120	<10	ug/g	NC	30
9029936	Hexane	2023/11/06	84	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9029936	Methyl Ethyl Ketone (2-Butanone)	2023/11/06	87	60 - 140	90	60 - 140	<0.40	ug/g	NC	50
9029936	Methyl Isobutyl Ketone	2023/11/06	82	60 - 140	85	60 - 130	<0.40	ug/g	NC	50
9029936	Methyl t-butyl ether (MTBE)	2023/11/06	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9029936	Methylene Chloride(Dichloromethane)	2023/11/06	93	60 - 140	97	60 - 130	<0.049	ug/g	NC	50
9029936	o-Xylene	2023/11/06	80	60 - 140	81	60 - 130	<0.020	ug/g	NC	50
9029936	p+m-Xylene	2023/11/06	91	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
9029936	Styrene	2023/11/06	96	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9029936	Tetrachloroethylene	2023/11/06	99	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9029936	Toluene	2023/11/06	90	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
9029936	Total Xylenes	2023/11/06					<0.020	ug/g	NC	50
9029936	trans-1,2-Dichloroethylene	2023/11/06	96	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9029936	trans-1,3-Dichloropropene	2023/11/06	80	60 - 140	83	60 - 130	<0.040	ug/g	NC	50
9029936	Trichloroethylene	2023/11/06	97	60 - 140	98	60 - 130	<0.010	ug/g	NC	50
9029936	Trichlorofluoromethane (FREON 11)	2023/11/06	96	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9029936	Vinyl Chloride	2023/11/06	93	60 - 140	95	60 - 130	<0.019	ug/g	NC	50
9030166	F2 (C10-C16 Hydrocarbons)	2023/11/06	92	60 - 130	95	80 - 120	<10	ug/g	NC	30
9030166	F3 (C16-C34 Hydrocarbons)	2023/11/06	92	60 - 130	96	80 - 120	<50	ug/g	NC	30
9030166	F4 (C34-C50 Hydrocarbons)	2023/11/06	94	60 - 130	98	80 - 120	<50	ug/g	NC	30
9030312	Available (CaCl2) pH	2023/11/06			100	97 - 103			0.24	N/A
9030355	Hot Water Ext. Boron (B)	2023/11/06	112	75 - 125	101	75 - 125	<0.050	ug/g	19	40
9030369	Hot Water Ext. Boron (B)	2023/11/06	104	75 - 125	102	75 - 125	<0.050	ug/g	6.2	40
9030462	WAD Cyanide (Free)	2023/11/06	100	75 - 125	101	80 - 120	<0.01	ug/g	NC	35
9030480	WAD Cyanide (Free)	2023/11/06	99	75 - 125	104	80 - 120	<0.01	ug/g	NC	35
9030577	Chromium (VI)	2023/11/07	91	70 - 130	94	80 - 120	<0.18	ug/g	NC	35
9030865	Available (CaCl2) pH	2023/11/06			101	97 - 103			1.4	N/A
9030901	Available (CaCl2) pH	2023/11/06			100	97 - 103			0.96	N/A
9031062	Conductivity	2023/11/06			104	90 - 110	<0.002	mS/cm	2.5	10
9031089	Conductivity	2023/11/06			103	90 - 110	<0.002	mS/cm	1.1	10
9031125	Chromium (VI)	2023/11/07	92	70 - 130	92	80 - 120	<0.18	ug/g	NC	35
9031270	Conductivity	2023/11/06			103	90 - 110	<0.002	mS/cm	0.39	10



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

			Matrix	Spike	SPIKED	BLANK	Method B	lank	RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9032757	WAD Cyanide (Free)	2023/11/07	91	75 - 125	102	80 - 120	<0.01	ug/g	NC	35
9038445	F4G-sg (Grav. Heavy Hydrocarbons)	2023/11/09	95	65 - 135	102	65 - 135	<100	ug/g	11	50

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).



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: LW

#### **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.

	INVOIC					REPO	ORT TO:	_				ppolicor	NFORMATION:			01-Nov-23 15:49	
any Nam		s Inc		Compa	ny Name:						Quotation #			0		Katherine Szozda	
ion:	Accounts Payable 100-2650 Queensvie	w Drive		Attenti	the:							144	Stream		-	HILLIAM HALLANDER HALLAND	
	Ottawa ON K2B 8H6			Addres		-					Project	DTT-	23002	538-A0		C313431	
	(613) 688-1899	Fax.	(613) 225-733	7 Tel:			Fax				Project Name: Site #:	_			-	RUK ENV-1151	
MOE RE	accounting.ottawa@				lean.	wells Pex	p.(0m				Sampled By:				- IIIh	C#794485-11-01 Katherine Sz	
IOL KE	GULATED DRINKING W SUBMITTED ON	THE BV LABS I	DRINKING WAT	FOR HUMAN TER CHAIN OF	CONSUMPTION CUSTODY	MUST BE			1 0	AN	ALYSIS REQUES	TED (PLEASE BE	SPECIFIC)			Turnaround Time (TAT) Required:	
	tion 153 (2011)		Other Regulation			structions	circle):		~					Δ.	Regular (	Please provide advance notice for rush projects Standard) TAT:	
	Res/Park Medium/Fine	CCME Reg 558.	Sanitary Sew			structions	- Se circ	7							(will be applied if Rush TAT is not specified):		
e3 [	Agri/Other K For RSC	MISA	Storm Sewer Municipality	Bylaw			d Filtered (please of Metals / Hg / Cr VI	BTEXF1-F4	metals						Please note.	AT = 5-7 Working days for most tests.  Standard TAT for certain tests such as BOD and Dioxins/Furan	
e		PWGO	Reg 406 Tal	ble			Filtered (ple	PHCs, B	Z		S				onys - coma	ici your Project Manager for details.	
_	Include Criteria on	Oths _	nahrais (VAII)				Meta	153 P	153	S	工			10	Date Requir		
Samp	ole Barcode Label	Sample (! ocation		Date Sampled	Time Sampled	Matrix	ii.	O.Reg 7	open	100	8		100			mation Number(call lab for #)	
	B	H-1 SS	2	Cct 26/2	3 2:00	S		X	100				-		# of Bottles	Comments	
	- 0		0	Wang		)		X	×	X	X				2	dimited sample volunce	
_	0	UP 2		Oct 26/2	3 7:00			1							9	0	
	B	H-1 SS	3	00426/2	3 2000										2		
	18	H-2 AS	31	Oct 30/23	10:00		- 1						1		3		
	8	H-2%	551	Oct 30/23	10:00										3		
	P	H-6 S	51	Oct 23/22	3:00					,							
	0	11 6	25.0	0							-		-		3		
		H-6 -	229	CC+ 27/23	3:00										2		
	- B	1-7 SS	AGC	Oct 27/23	9:30		- 4.								3		
	B+	1.7 55	28	०० भिष्	9:30										3		
	Bt		3	04 26/2	3 9:00	V		V	V	V	V				3		
1	RELINQUISHED BY: (Signatu	re/Print)	Date: (YY)	MM/DD)	ime //)	RECEIVED E	BY: (Signature/F	rint)	10	ate; (YY/M	The state of the s		jars used and			tory Use Only	
1/1	h wells		93/0/	101	Hal	MACCE	4450	V	MANTE	102		1549	not submitted	Time Sensitive	Temperatu	ure (°C) on Reco. Custody Seal Yes	
OTHER	WISE AGREED TO IN WRITING ENT AND ACCEPTANCE OF OU	WORK SUBMITTE	ED ON THIS CHAIN	OF CUSTODY IS S	JBJECT TO BY LABS	STANDARD TER	MS AND CONDIT	BAAK	NINGOFT	S CHAIN	of custopy poo	8:48.	THE REAL PROPERTY.		14,14,1	14 / D D D D Intact	

Page 43 of 63

	Bun 674	eau Veritas Li Campobello	aboratories b Road, Mississauga, Ontar	o Canada L5N 2L	8 Tel: (905) 817-57	00 Toll-free 800-	563-6266 Fax	(905) 817-57	77 www.bv	na com		Rec	eive	in Otter		N OF CUS	FODY RECORD	Page 2	f a
M.A. C.	INVOIC	то:				REPO	RT TO:						PROJE	CT INFORMATION:			Laboratory U	se Only:	
Company Name	#17498 exp Service	Inc		Company		O-M-					Quotation	#	B911	M8-			Bureau Veritas Job #:	Bottle Orde	er#;
Attention	Accounts Payable 100-2650 Queensvie	v Drive		Attention	Mark M	ccalla		_			P.O.#		OTE	21018258-C0					MIN
Address	Ottawa ON K2B 8H6	V Dilve		Address	-						Project Na			TT- 23000	1538-An		COC#:	961363857612	
Tel	(613) 688-1899	Fax	(613) 225-7337	Tot			Fax				Site #	arrez.		0000	200 40	D 01001		Project Mana	iger:
Email:	AP@exp.com; Karen			Email:		ccalla@exp.	om leah	wellse	WEXP.	(om	Sampled E						C#857512-04-01	Katherine Szo	ozda
MOE REC	SULATED DRINKING W.	TER OR	WATER INTENDED FO	OR HUMAN CO	ONSUMPTION I	MUST BE			1	ANA	LYSIS RE	DUESTE	D (PLEASE	BE SPECIFIC)		CHARLES AND A	Turnaround Time (TA	T) Required:	_
ACCOUNT NAMED OF	THE REAL PROPERTY.	UREAU V		ATER CHAIR	WATER CONTRACTOR OF THE PARTY O		cle)	4 X	1000	>						Regular (S	Please provide advance not tandard) TAT:	ce for rush projects	
	ion 153 (2011) A Res/Park Medium/Fine	Посме	Other Regulations Sanitary Sewer	Sylaw	Special In:	structions		Sant RA	70							(will be applie	d if Rush TAT is not specified)		X
	indComm Coarse	Reg 5					/Cr	1	2 ×	_							= 5-7 Working days for most tests		
Table 3	Agri/Other For RSC	MISA					ed (ple	OHC	A Car							days - contac	Standard TAT for certain tests such your i' bect Manager for details.	as BOD and Dioxins/Furar s	are > 5
XI Table		PWO	The second secon					S3	Will M	V	V			-		Job Specific	Rush TAT (if applies to entire s		
	Include Criteria on						eld Fitter Metals	2/2	1953	0	PAH					Date Requires Rush Confirm	ation Number	Time Required:	$-\Box$
Samo	in Barcode Labet		ation) Identification	Date Sampled	Time Sampled	Matrix	· ii.	800	1000	3	10					# of Bottles		(call lab for #)	
	10	. 0	Aci	1.1 2/ 122	0.00	5		×	1	V	V					2		on cases	
	181	1-9	ASI	Xt 26/23	11:00			7	X	7	1					a			
2	B	1-9	552	24 26/23	11:00					1	1					3			
-			336	01 1						_						-			
2	BI	1-10 F	151	UCT 26/23	19:00											12			
<	P	1-1/1	MM 552	Oct 26/23	12:00		1									1			
		7 10	Med 200	ver apria				-	-	-	-H					0			
5	16	1-11	SSI	Oct30/23	2:00											3			
6	0	1141	(()	mt 30/23	2:00											3			
-		PII_	)) &	10130123	-		-		-			-				2			
7	1	up	1	Oct 24/23	12:00											2			
8	1/	1				V		1	1	V	1/								
		up	.2	Oct 30/23	0.00	V		V	Y							2			
9																岛			
10																			
		/D. ' - 1	Date: (YY/M	M(DO) T T	me	BECEIVED	BY: (Signature/	Print		ate: (YY/N	MIDE			I dies					
	RELINQUISHED BY: (Signa	ture/Print)		01	ine .	RECEIVED	Lon -	. 1		ato: (TT/W	minu)		ime	# jars used and not submitted	Time Sensitive		ory Use Only		
171	1/2 1/10005		23/11/			See	Palt	-			-			-	, mile demanive	Temperatur See	e (°C) on Recei Custody	nt	No
UNI ESS OTHE	RVISE AGREED TO IN WRITH	IG, WORK SU	BMITTED ON THIS CHAIN C	F CUSTODY IS SU	BJECT TO BUREAU	VERITAS'S STAN	ID RO TERMS	AND CONDIT	IONS. SIG	NING OF T	S CHAIN	OF CUSTO	ODY DOCU	MENT IS	The state of the s	No.		: Bureau Veritas Yellov	

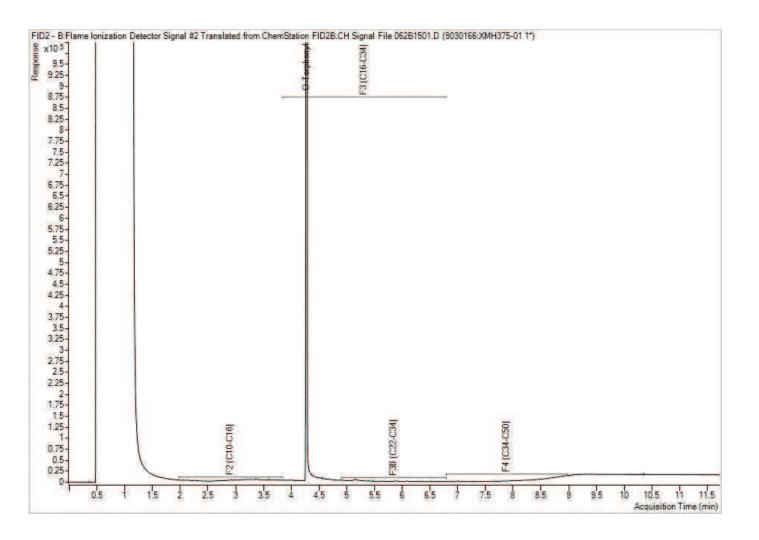
Bureau Veritas Canada (2019) inc.

exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-1 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Bureau Veritas Job #: C3Y3431 Report Date: 2023/11/09

Bureau Veritas Sample: XMH375 Lab-

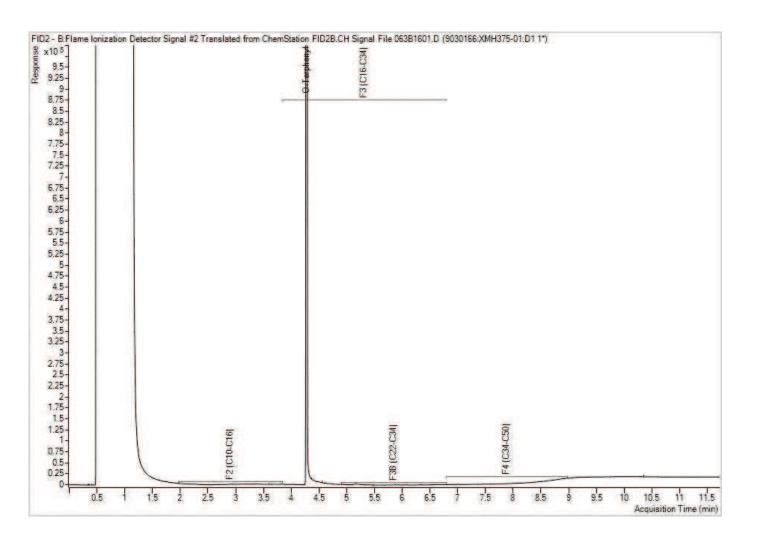
Dup

exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-1 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

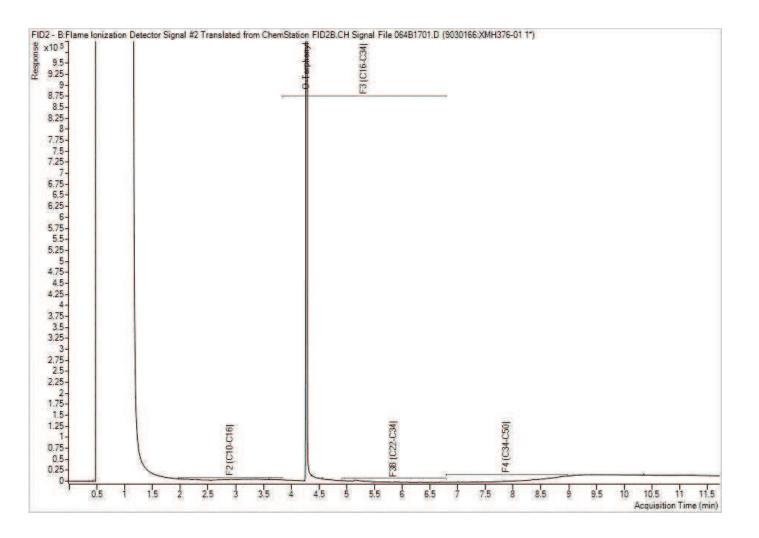


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: DUP 2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

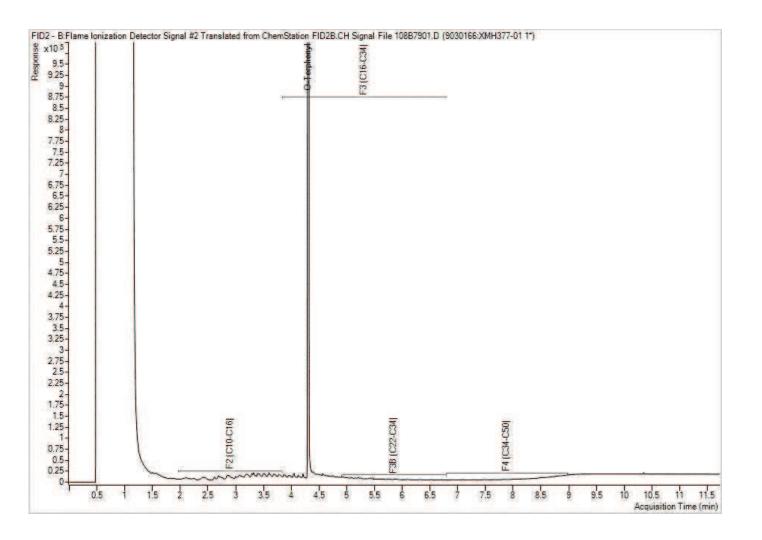


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-1 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

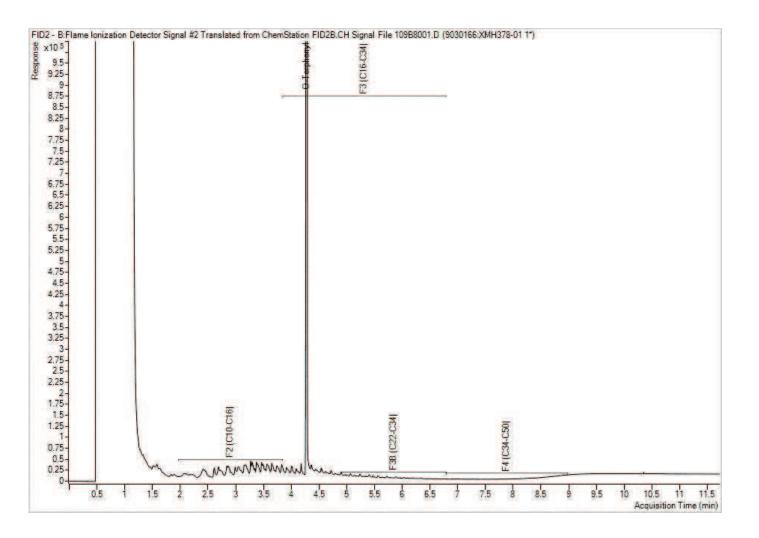


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-2 AS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

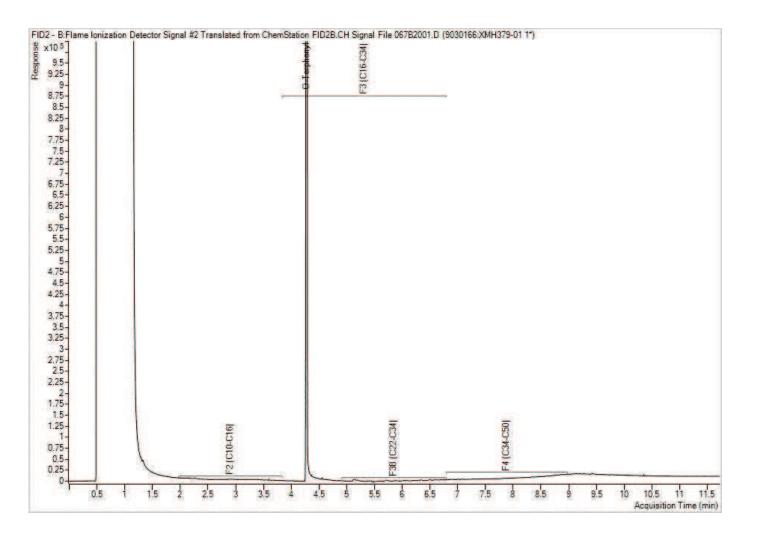


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-2 SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

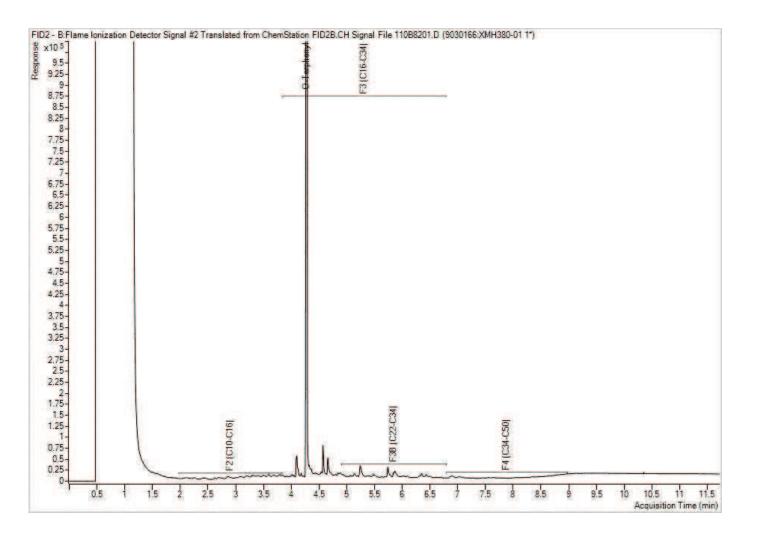


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-6 SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

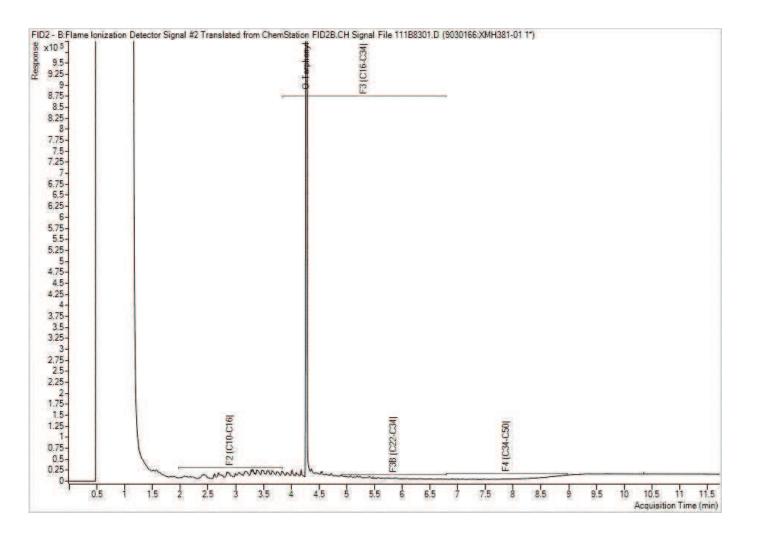


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-6 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

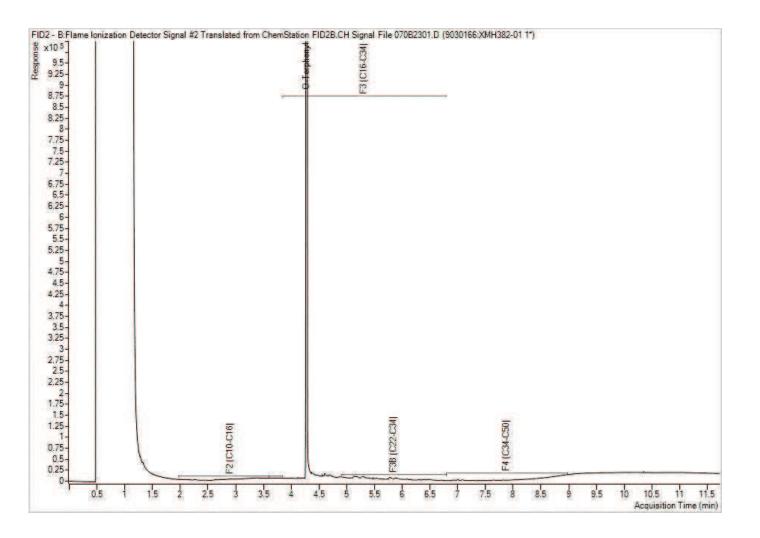


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-7 SS2A

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

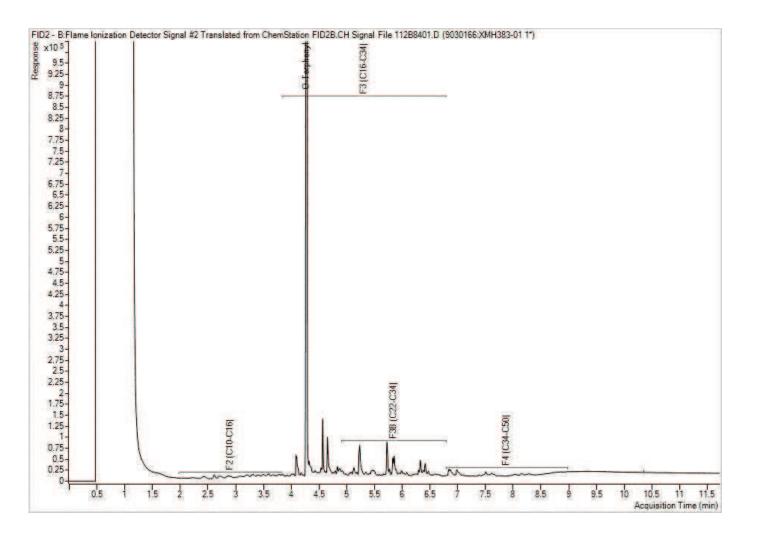


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-7 SS2B

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

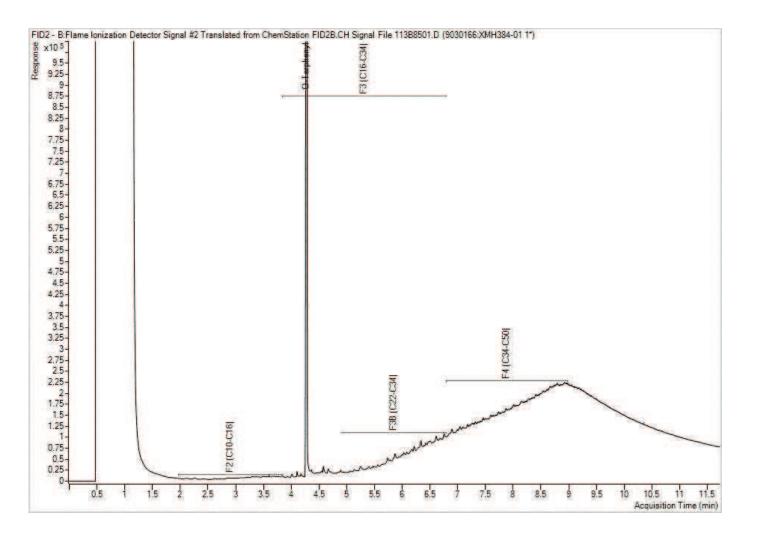


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-8 AS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

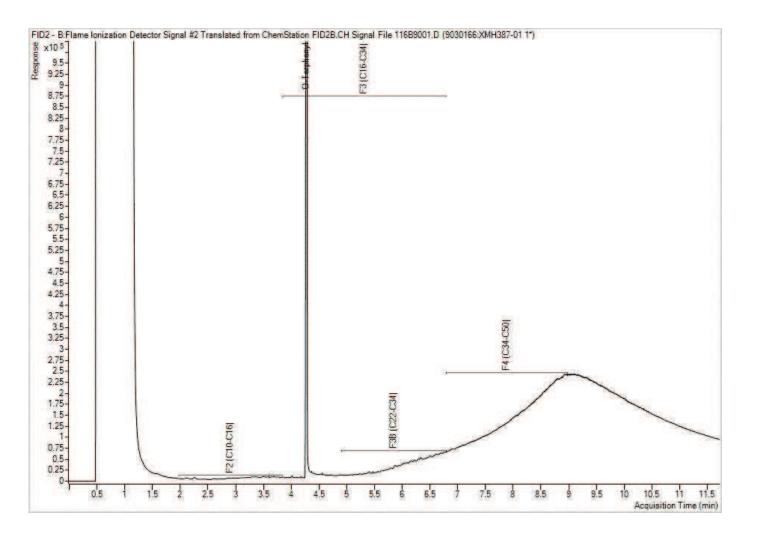


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-10 AS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

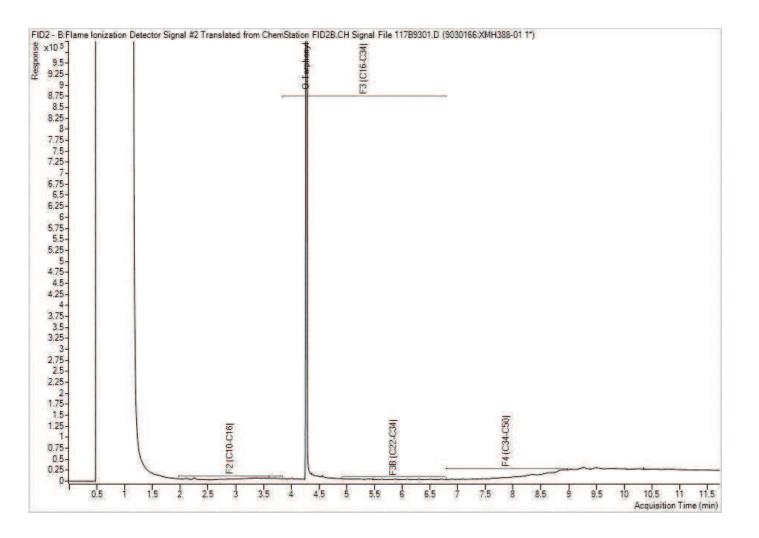


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-10 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

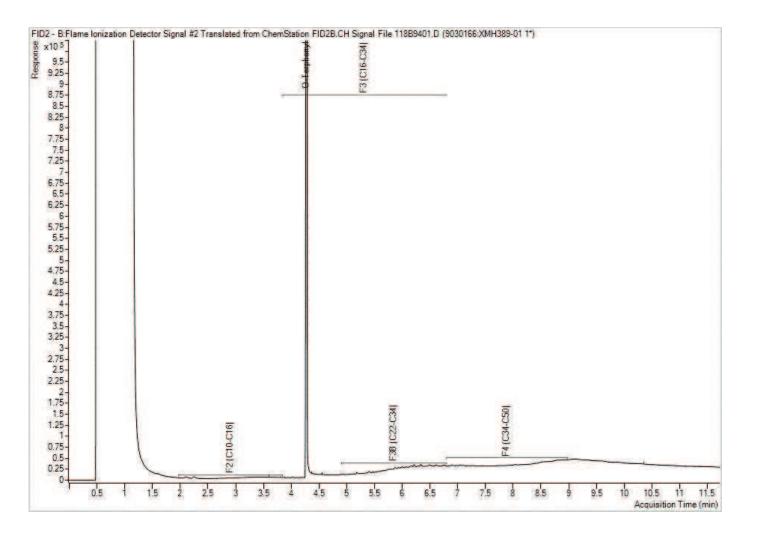


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-11 SS1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

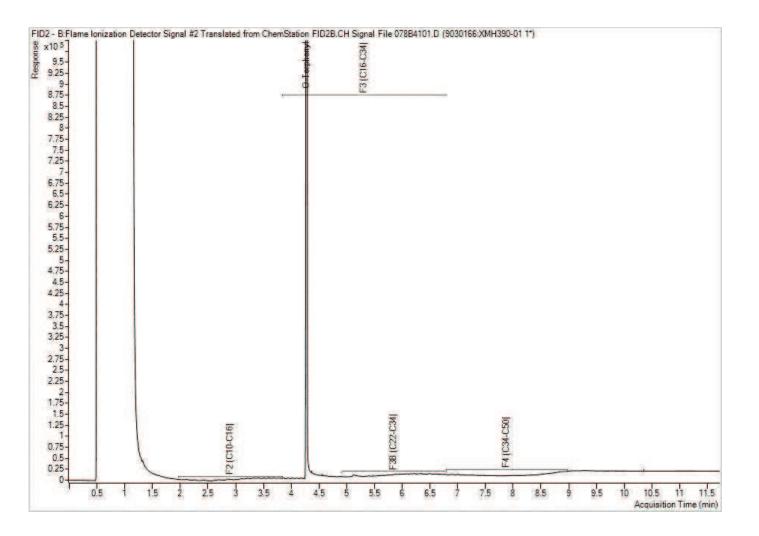


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH-11 SS2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

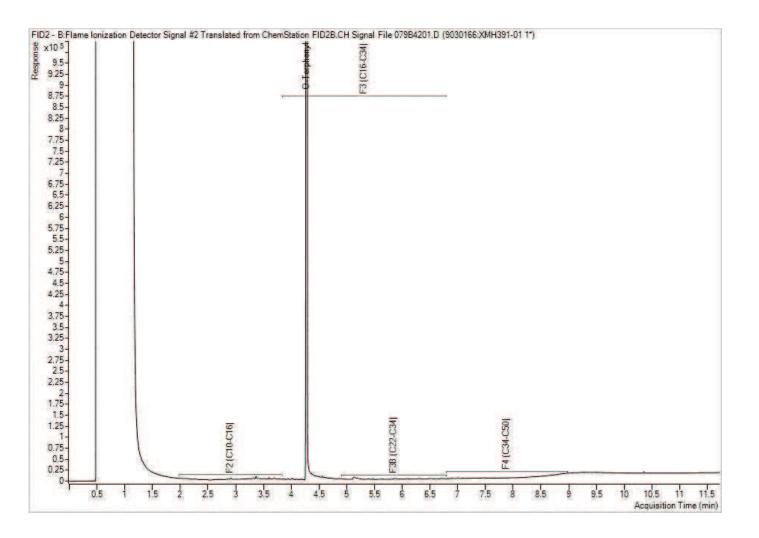


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: DUP 1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

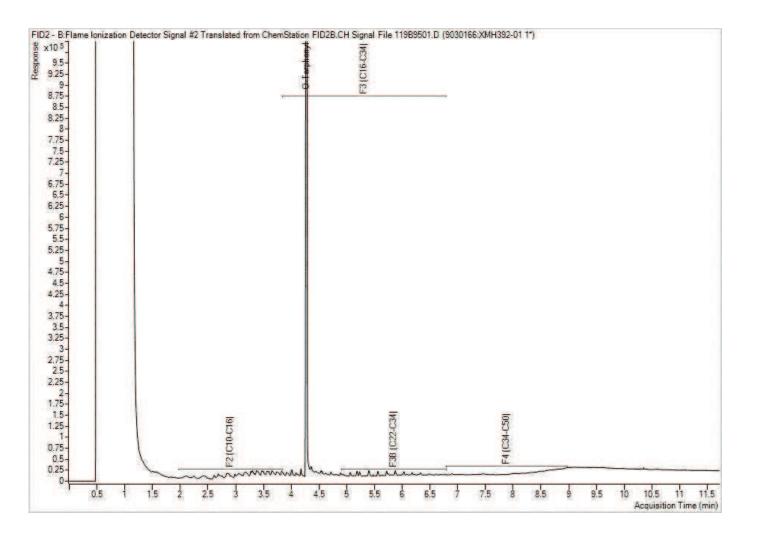


exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: DUP 3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram





Your Project #: OTT-23002538-A0 Your C.O.C. #: 997614-01-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/06/27

Report #: R8211731 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4I9095 Received: 2024/06/20, 16:40

Sample Matrix: Water # Samples Received: 6

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
1,3-Dichloropropene Sum (1)	4	N/A	2024/06/26		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	2	N/A	2024/06/24	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2024/06/24	2024/06/24	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds in Water (1)	4	N/A	2024/06/25	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, 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) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (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.



Your Project #: OTT-23002538-A0 Your C.O.C. #: 997614-01-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/06/27

Report #: R8211731 Version: 1 - Final

### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4I9095 Received: 2024/06/20, 16:40

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to: Katherine Szozda, Project Manager Email: Katherine.Szozda@bureauveritas.com Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PD

# PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ZNG101								
Sampling Date		2024/06/20 13:30								
COC Number		997614-01-01								
	UNITS	BH/MW-10	RDL	QC Batch						
BTEX & F1 Hydrocarbons										
Benzene	ug/L	<0.20	0.20	9474999						
Toluene	ug/L	<0.20	0.20	9474999						
Ethylbenzene	ug/L	<0.20	0.20	9474999						
o-Xylene	ug/L	<0.20	0.20	9474999						
p+m-Xylene	ug/L	<0.40	0.40	9474999						
Total Xylenes	ug/L	<0.40	0.40	9474999						
Surrogate Recovery (%)										
1,4-Difluorobenzene	%	106		9474999						
4-Bromofluorobenzene	%	88		9474999						
D10-o-Xylene	%	110		9474999						
D4-1,2-Dichloroethane	%	104		9474999						
RDL = Reportable Detection I	imit									
QC Batch = Quality Control B	atch									



Client Project #: OTT-23002538-A0

Sampler Initials: PD

# O.REG 153 PHCS, BTEX/F1-F4 (WATER)

Bureau Veritas ID		ZNG098			ZNG098		
Sampling Date		2024/06/20 14:20			2024/06/20 14:20		
COC Number		997614-01-01			997614-01-01		
	UNITS	BH/MW-8	RDL	QC Batch	BH/MW-8 Lab-Dup	RDL	QC Batch
BTEX & F1 Hydrocarbons	*	•	•			<u> </u>	
Benzene	ug/L	4.3	0.20	9474999	3.8	0.20	9474999
Toluene	ug/L	0.33	0.20	9474999	0.32	0.20	9474999
Ethylbenzene	ug/L	6.5	0.20	9474999	5.8	0.20	9474999
o-Xylene	ug/L	<0.20	0.20	9474999	<0.20	0.20	9474999
p+m-Xylene	ug/L	3.1	0.40	9474999	2.8	0.40	9474999
Total Xylenes	ug/L	3.1	0.40	9474999	2.8	0.40	9474999
F1 (C6-C10)	ug/L	72	25	9474999	56	25	9474999
F1 (C6-C10) - BTEX	ug/L	58	25	9474999	44	25	9474999
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9475096			
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9475096			
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9475096			
Reached Baseline at C50	ug/L	Yes		9475096			
Surrogate Recovery (%)							<u></u>
1,4-Difluorobenzene	%	103		9474999	104		9474999
4-Bromofluorobenzene	%	96		9474999	93		9474999
D10-o-Xylene	%	126		9474999	114		9474999
D4-1,2-Dichloroethane	%	108		9474999	108		9474999
o-Terphenyl	%	103		9475096			
RDL = Reportable Detection	Limit						

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Sampler Initials: PD

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZNG097	ZNG099	ZNG100	ZNG102		
Bureau ventas ib		2024/06/20	2024/06/20	2024/06/20	2024/06/20		
Sampling Date		11:45	15:20	11:45	15:40		
COC Number		997614-01-01	997614-01-01	997614-01-01	997614-01-01		
	UNITS	BH/MW-2	BH/MW-3	BH/MW-1	BH/MW-4	RDL	QC Batch
Calculated Parameters	-	•	•		•	l	
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9472840
Volatile Organics	u <sub>B</sub> / L	٧٥.50	10.50	10.50	10.50	0.50	3472040
Acetone (2-Propanone)	ug/L	36	<10	<10	<10	10	9475248
Benzene	ug/L	4.6	0.32	<0.20	<0.20	0.20	9475248
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9475248
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
Carbon Tetrachloride	ug/L	<0.19	<0.19	<0.19	<0.19	0.19	9475248
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Chloroform	ug/L	<0.20	<0.20	0.32	<0.20	0.20	9475248
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9475248
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
1,2-Dichloroethane	ug/L	<0.49	<0.49	<0.49	<0.49	0.49	9475248
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	9475248
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Ethylene Dibromide	ug/L	<0.19	<0.19	<0.19	<0.19	0.19	9475248
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9475248
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	9475248
Methyl Ethyl Ketone (2-Butanone)	ug/L	72	<10	<10	<10	10	9475248
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	9475248
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
Styrene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
RDL = Reportable Detection Limit							

QC Batch = Quality Control Batch



Client Project #: OTT-23002538-A0

Sampler Initials: PD

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZNG097	ZNG099	ZNG100	ZNG102		
Sampling Date		2024/06/20	2024/06/20	2024/06/20	2024/06/20		
		11:45	15:20	11:45	15:40		
COC Number		997614-01-01	997614-01-01	997614-01-01	997614-01-01		
	UNITS	BH/MW-2	BH/MW-3	BH/MW-1	BH/MW-4	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9475248
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9475248
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9475248
Surrogate Recovery (%)	•		•	•	•		
4-Bromofluorobenzene	%	96	97	95	96		9475248
D4-1,2-Dichloroethane	%	113	112	100	116		9475248
D8-Toluene	%	91	91	93	90		9475248

QC Batch = Quality Control Batch



Client Project #: OTT-23002538-A0

Sampler Initials: PD

2024/06/25

#### **TEST SUMMARY**

Bureau Veritas ID: ZNG097

Sample ID: BH/MW-2

Matrix: Water Collected:

Narayan Ghimire

Received:

2024/06/20 Shipped:

2024/06/20

**Date Analyzed Test Description** Instrumentation Batch **Extracted** Analyst 1,3-Dichloropropene Sum CALC 9472840 N/A 2024/06/26 **Automated Statchk** 

9475248

N/A

GC/MS

Bureau Veritas ID: 7NG098

Volatile Organic Compounds in Water

Sample ID: BH/MW-8

Matrix: Water Collected: 2024/06/20

Shipped:

Received: 2024/06/20

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst Petroleum Hydro. CCME F1 & BTEX in Water HSGC/MSFD 9474999 2024/06/24 Georgeta Rusu N/A Petroleum Hydrocarbons F2-F4 in Water GC/FID 9475096 2024/06/24 2024/06/24 Mohammed Abdul Nafay Shoeb

Bureau Veritas ID: ZNG098 Dup

Sample ID: BH/MW-8

Matrix: Water Collected: 2024/06/20 Shipped:

Received: 2024/06/20

**Test Description** Instrumentation **Batch** Extracted Date Analyzed Analyst Petroleum Hydro. CCME F1 & BTEX in Water HSGC/MSFD 9474999 2024/06/24 N/A Georgeta Rusu

Bureau Veritas ID: ZNG099

Sample ID: BH/MW-3

Matrix: Water Collected: 2024/06/20 Shipped:

Received: 2024/06/20

**Test Description** Instrumentation Batch Extracted Date Analyzed Analyst 1,3-Dichloropropene Sum CALC 9472840 N/A 2024/06/26 **Automated Statchk** Volatile Organic Compounds in Water GC/MS 9475248 N/A 2024/06/25 Narayan Ghimire

Bureau Veritas ID: ZNG100

Sample ID: BH/MW-1

> Matrix: Water

Collected: 2024/06/20

Shipped: Received: 2024/06/20

**Test Description** Instrumentation **Batch** Extracted **Date Analyzed** Analyst 2024/06/26 1,3-Dichloropropene Sum CALC 9472840 N/A Automated Statchk Volatile Organic Compounds in Water GC/MS 9475248 N/A 2024/06/25 Narayan Ghimire

Bureau Veritas ID: ZNG101

BH/MW-10 Sample ID:

> Matrix: Water

Collected: 2024/06/20

Shipped:

Received: 2024/06/20

**Test Description** Instrumentation **Extracted Date Analyzed** Analyst Batch Petroleum Hydro. CCME F1 & BTEX in Water HSGC/MSFD 9474999 2024/06/24 N/A Georgeta Rusu

**Bureau Veritas ID: ZNG102** 

Sample ID: BH/MW-4

> Matrix: Water

Collected: 2024/06/20 Shipped:

Received: 2024/06/20

**Test Description** Instrumentation Batch **Extracted Date Analyzed** Analyst CALC 9472840 2024/06/26 1,3-Dichloropropene Sum N/A **Automated Statchk** 



Client Project #: OTT-23002538-A0

Sampler Initials: PD

## **TEST SUMMARY**

**Bureau Veritas ID:** ZNG102

Sample ID: BH/MW-4
Matrix: Water

**Collected:** 2024/06/20 **Shipped: Received:** 2024/06/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Water	GC/MS	9475248	N/A	2024/06/25	Narayan Ghimire



Client Project #: OTT-23002538-A0

Sampler Initials: PD

## **GENERAL COMMENTS**

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

Package 1 11.7°C

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PD

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9474999	1,4-Difluorobenzene	2024/06/24	96	70 - 130	97	70 - 130	103	%		
9474999	4-Bromofluorobenzene	2024/06/24	99	70 - 130	100	70 - 130	94	%		
9474999	D10-o-Xylene	2024/06/24	105	70 - 130	106	70 - 130	104	%		
9474999	D4-1,2-Dichloroethane	2024/06/24	97	70 - 130	97	70 - 130	104	%		
9475096	o-Terphenyl	2024/06/24	103	60 - 140	104	60 - 140	105	%		
9475248	4-Bromofluorobenzene	2024/06/25	100	70 - 130	99	70 - 130	98	%		
9475248	D4-1,2-Dichloroethane	2024/06/25	106	70 - 130	98	70 - 130	98	%		
9475248	D8-Toluene	2024/06/25	98	70 - 130	103	70 - 130	94	%		
9474999	Benzene	2024/06/24	85	50 - 140	92	50 - 140	<0.20	ug/L	12	30
9474999	Ethylbenzene	2024/06/24	92	50 - 140	95	50 - 140	<0.20	ug/L	12	30
9474999	F1 (C6-C10) - BTEX	2024/06/24					<25	ug/L	28	30
9474999	F1 (C6-C10)	2024/06/24	104	60 - 140	104	60 - 140	<25	ug/L	25	30
9474999	o-Xylene	2024/06/24	96	50 - 140	95	50 - 140	<0.20	ug/L	NC	30
9474999	p+m-Xylene	2024/06/24	93	50 - 140	92	50 - 140	<0.40	ug/L	10	30
9474999	Toluene	2024/06/24	88	50 - 140	87	50 - 140	<0.20	ug/L	2.2	30
9474999	Total Xylenes	2024/06/24					<0.40	ug/L	10	30
9475096	F2 (C10-C16 Hydrocarbons)	2024/06/25	96	60 - 140	95	60 - 140	<100	ug/L	NC	30
9475096	F3 (C16-C34 Hydrocarbons)	2024/06/24	108	60 - 140	108	60 - 140	<200	ug/L		
9475096	F4 (C34-C50 Hydrocarbons)	2024/06/24	100	60 - 140	100	60 - 140	<200	ug/L		
9475248	1,1,1,2-Tetrachloroethane	2024/06/25	90	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9475248	1,1,1-Trichloroethane	2024/06/25	90	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9475248	1,1,2,2-Tetrachloroethane	2024/06/25	97	70 - 130	88	70 - 130	<0.40	ug/L	NC	30
9475248	1,1,2-Trichloroethane	2024/06/25	95	70 - 130	89	70 - 130	<0.40	ug/L	NC	30
9475248	1,1-Dichloroethane	2024/06/25	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9475248	1,1-Dichloroethylene	2024/06/25	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9475248	1,2-Dichlorobenzene	2024/06/25	89	70 - 130	91	70 - 130	<0.40	ug/L	NC	30
9475248	1,2-Dichloroethane	2024/06/25	100	70 - 130	91	70 - 130	<0.49	ug/L	NC	30
9475248	1,2-Dichloropropane	2024/06/25	95	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9475248	1,3-Dichlorobenzene	2024/06/25	89	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
9475248	1,4-Dichlorobenzene	2024/06/25	87	70 - 130	92	70 - 130	<0.40	ug/L	NC	30
9475248	Acetone (2-Propanone)	2024/06/25	117	60 - 140	101	60 - 140	<10	ug/L	NC	30
9475248	Benzene	2024/06/25	92	70 - 130	91	70 - 130	<0.20	ug/L	NC	30



# QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PD

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9475248	Bromodichloromethane	2024/06/25	95	70 - 130	90	70 - 130	<0.50	ug/L	NC	30
9475248	Bromoform	2024/06/25	92	70 - 130	86	70 - 130	<1.0	ug/L	NC	30
9475248	Bromomethane	2024/06/25	81	60 - 140	80	60 - 140	<0.50	ug/L	NC	30
9475248	Carbon Tetrachloride	2024/06/25	89	70 - 130	94	70 - 130	<0.19	ug/L	NC	30
9475248	Chlorobenzene	2024/06/25	91	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9475248	Chloroform	2024/06/25	95	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9475248	cis-1,2-Dichloroethylene	2024/06/25	97	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
9475248	cis-1,3-Dichloropropene	2024/06/25	94	70 - 130	90	70 - 130	<0.30	ug/L	NC	30
9475248	Dibromochloromethane	2024/06/25	93	70 - 130	89	70 - 130	<0.50	ug/L	NC	30
9475248	Dichlorodifluoromethane (FREON 12)	2024/06/25	71	60 - 140	73	60 - 140	<1.0	ug/L	NC	30
9475248	Ethylbenzene	2024/06/25	86	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9475248	Ethylene Dibromide	2024/06/25	97	70 - 130	90	70 - 130	<0.19	ug/L	NC	30
9475248	Hexane	2024/06/25	94	70 - 130	98	70 - 130	<1.0	ug/L	NC	30
9475248	Methyl Ethyl Ketone (2-Butanone)	2024/06/25	118	60 - 140	99	60 - 140	<10	ug/L	NC	30
9475248	Methyl Isobutyl Ketone	2024/06/25	111	70 - 130	92	70 - 130	<5.0	ug/L	NC	30
9475248	Methyl t-butyl ether (MTBE)	2024/06/25	95	70 - 130	89	70 - 130	<0.50	ug/L	NC	30
9475248	Methylene Chloride(Dichloromethane)	2024/06/25	93	70 - 130	88	70 - 130	<2.0	ug/L	NC	30
9475248	o-Xylene	2024/06/25	88	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9475248	p+m-Xylene	2024/06/25	87	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9475248	Styrene	2024/06/25	91	70 - 130	89	70 - 130	< 0.40	ug/L	NC	30
9475248	Tetrachloroethylene	2024/06/25	86	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9475248	Toluene	2024/06/25	89	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9475248	Total Xylenes	2024/06/25					<0.20	ug/L	NC	30
9475248	trans-1,2-Dichloroethylene	2024/06/25	92	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9475248	trans-1,3-Dichloropropene	2024/06/25	94	70 - 130	92	70 - 130	<0.40	ug/L	NC	30
9475248	Trichloroethylene	2024/06/25	90	70 - 130	93	70 - 130	<0.20	ug/L	2.1	30
9475248	Trichlorofluoromethane (FREON 11)	2024/06/25	91	70 - 130	95	70 - 130	<0.50	ug/L	NC	30



## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PD

			Matrix	Spike	SPIKED	BLANK	Method B	lank	RPI	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9475248	Vinyl Chloride	2024/06/25	88	70 - 130	90	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).



Client Project #: OTT-23002538-A0

Sampler Initials: PD

#### **VALIDATION SIGNATURE PAGE**

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

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.

# 20-Jun-24 16:40

# Katherine Szozda

# Presence of Visible Particulate/Sediment

Maxxam Analytics CAM FCD-01013/5 Page 1 of 1

L	ENV-1283			_											Вс	ottle	Types													
_				lı	norgani	cs						0	rganio	s							Hyd	rocarl	oons				Vola	tiles		Othe
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	ABN	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan		F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	13H/MW-2	TS																						nik.						
2	3	1																												
3						W.	8 6	ΙĒ	16	遵		THE STATE OF	17			*	1	Į.	W.	E	7/-		H				JE.			
4	10																													
5	V 4	V	3		N THE	T <sub>e</sub>		EIH					H	NE.			12	H		Į.	5.00			Sil	V.		ON III		297 to	
6		24															250						The D	I V					100	
7			THE STATE OF THE S			u Z					100	THE	110		31,34		4 3	98	M.	:07	N/A							M		
8																							DAILE							
9																ı K						5 [8 In D			TV E					
LO																					Sales								The s	don
	Comments:	Leg P TS	Trace	Settled	articulate Sedimen eater than	t (just o					ess)				R	ecord	ded B	<b>y:</b> (signa	iture/pr	int)			0			Ţ~	7	~		]

(a)		Bureau Veritas 6740 Campobello Road, Miss	sissauga, Ontario Can	ada L5N 2L8	Tel:(905) 817-5	00 Toll-free 800	-563-6266 Fax	(905) 817-5	777 www.t	bvna.com					c	Katheri	0-Jun-24 16:40 ne Szozda 	Page of
		OICE TO:				REPO	RT TO:					PRO.	ECT INFOR	MATION:		C4.	19093	
ompany Name:	The second secon	ices Inc		Company Na	ame:						Quotation#	C4	1513			J L	ENV-1283	3ottle Order #:
ttention:	Accounts Payable			Attention		immerly					P.O. #:						200	/000mmmmm
ddress	100-2650 Queens			Address:							Project:	ОТ	T-230025	38-A0				997614
10	Ottawa ON K2B 8										Project Nam	e:					COC#:	Project Manager:
el: mail:	(613) 688-1899	Fax: (613)	225-7337	Tel:			Fax:				Site #:		21.	01	S.	1000		TANGETON OF A COMMO
COLUMN TO THE REAL PROPERTY.		en.Burke@exp.com		Email:		immerly@ex	p.com				Sampled By	1	hilip	Mivel	100		C#997614-01-01	Katherine Szozda
MOE REC	SUBMITTED ON TH	WATER OR WATER IN E BUREAU VERITAS D	TENDED FOR HURINKING WATER	JMAN CON CHAIN OF	SUMPTION F CUSTODY	MUST BE				AN	ALYSIS REQ	UESTED (PLEAS	E BE SPEC	IFIC)			Turnaround Time (TAT) Please provide advance notice	
	ion 153 (2011)	Othe	r Regulations		Special In	structions	circle):									Regular	Standard) TAT:	
	Res/Park Medium/I	Fine CCME S	anitary Sewer Bylaw		openia iii	on dottoris	S   S	/ater)	44							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	lied if Rush TAT is not specified):	
	Ind/Comm Coarse	Reg 558. St	torm Sewer Bylaw				Cr.	HS (Y	BTEX/F1-F4		1 1	ŀ		i i			AT = 5-7 Working days for most tests  Standard TAT for certain tests such as	200 40
Table 3	Agri/Other For RSC	L. Marin	cipality	Law.			을 포	Ď.	BTE								r: Standard TAT for certain tests such as act your Project Manager for details:	SOD and Dioxins/Furans are > 5
_			Reg 406 Table				Field Filtered (please o	VOCs	2					1 1		Job Speci	fic Rush TAT (if applies to entire su	bmission)
	•	Other				-	/ Filt	153 V	153 PHCs,	Water						Date Requir	SUL AND THE PROPERTY OF THE PARTY OF THE PAR	Time Required:
Commit	e Barcode Label	on Certificate of Analysis		Y.			lei -	Reg 1	Reg 18	⊆ ⊆						Rush Confi	rmation Number;	(call lab for #)
Sample	e barcode Labei	Sample (Location) Identifi	cation Date S	Sampled	Time Sampled	Matrix	8-24	9.0	0	втех						# of Bottles	Com	ments
	8 /	BH/MW -	2 Ivne	20/24	11445	GW		X								2	. 111	-10
		BH/mw -	8 Time	20/24	14/20	Bul	++	- 1	X	- 7			- 7			4		
		34/m/1-3	3 Tun	20/24/	15/20	Bul	13	V	/							2		
		111100-	200	10/29/1	31110	yw	-	^		-	+		-	$\vdash$		0		
1	1.	3H/mw - 1	Tune.	20/24	11445	GW	1	X	- 4							2		
		BH/MW-10	O June	20/24	13/30	GW		3		X	9					2		
	/	34/mw-4	June	20/24	15h40	GW		X								2		
										-								
																		1.7
																	Down to	
																	Received in O	ttawa
28	EVINQUISHED BY: (Sign	ature/Print)	Date: (YY/MM/DD)	Time		RECEIVED	BY: (Signature/	Print)		Date: (YY	/MM/DD)	Time	1 # 100	s used and		1-1-	ratory Use Only	-1
	nes Olive	- 14	24-06-20	-	20 A	pelicer				-	06/20	16:40	not	submitted	Time Sen	The case of	Contrado	Seal Yes No
- 1	BILD OIN	and		1	1 8444	0	7.0	9	-	2 . 45 /	11-1	. 2 -			Time Seri	Tempera 8, 14	Hule (C) Oll Recei	nt y
		NG, WORK SUBMITTED ON T OUR TERMS WHICH ARE AVA					NDARD TERMS	AND CONDI	TIONS. SI	GNING OF	THIS CHAIN C	F CUSTODY DO	CUMENT IS	V.			White	: Bureau Veritas Yellow: Cl
ME RESPON	NSIBILITY OF THE RELINQ	UISHER TO ENSURE THE AC	CURACY OF THE CH	AIN OF CUSTO	ODY RECORD. A	N INCOMPLETE	CHAIN OF CUST	ODY MAY F	PESULT IN	ANAL YTIC	AL TAT DEL	ve 2/7	1	SAMPLES	MUST BE KE	PT COOL ( < 10° C	FROM TIME OF SAMPLING	

Bureau Veritas Canada (2019) Inc

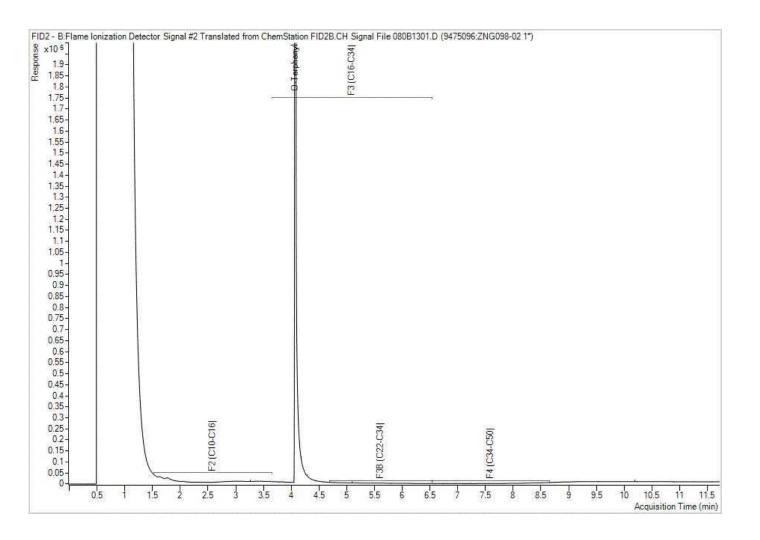
Bureau Veritas Job #: C4I9095 Report Date: 2024/06/27 Bureau Veritas Sample: ZNG098

exp Services Inc

Client Project #: OTT-23002538-A0

Client ID: BH/MW-8

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.



Your Project #: OTT-23002538-A0 Your C.O.C. #: C#997614-02-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/06/24

Report #: R8206084 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4J0198 Received: 2024/06/21, 09:31

Sample Matrix: Water # Samples Received: 1

	Date	Date	
Analyses	Quantity Extracted	Analyzed Laboratory Method	Analytical Method
1,3-Dichloropropene Sum (1)	1 N/A	2024/06/24	EPA 8260C m
Volatile Organic Compounds in Water (1)	1 N/A	2024/06/24 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, 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) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8



Your Project #: OTT-23002538-A0 Your C.O.C. #: C#997614-02-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/06/24

Report #: R8206084 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4J0198 Received: 2024/06/21, 09:31

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to: Katherine Szozda, Project Manager Email: Katherine.Szozda@bureauveritas.com Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-A0

Sampler Initials: PO

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZNM359		
Sampling Date		2024/06/21		
		08:45		
COC Number		C#997614-02-01		
	UNITS	BH/MW-12	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9472840
Volatile Organics				
Acetone (2-Propanone)	ug/L	1000	10	9473354
Benzene	ug/L	3.3	0.20	9473354
Bromodichloromethane	ug/L	<0.50	0.50	9473354
Bromoform	ug/L	<1.0	1.0	9473354
Bromomethane	ug/L	<0.50	0.50	9473354
Carbon Tetrachloride	ug/L	<0.19	0.19	9473354
Chlorobenzene	ug/L	<0.20	0.20	9473354
Chloroform	ug/L	<0.20	0.20	9473354
Dibromochloromethane	ug/L	<0.50	0.50	9473354
1,2-Dichlorobenzene	ug/L	<0.40	0.40	9473354
1,3-Dichlorobenzene	ug/L	<0.40	0.40	9473354
1,4-Dichlorobenzene	ug/L	<0.40	0.40	9473354
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9473354
1,1-Dichloroethane	ug/L	<0.20	0.20	9473354
1,2-Dichloroethane	ug/L	<0.49	0.49	9473354
1,1-Dichloroethylene	ug/L	<0.20	0.20	9473354
cis-1,2-Dichloroethylene	ug/L	1.6	0.50	9473354
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9473354
1,2-Dichloropropane	ug/L	<0.20	0.20	9473354
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9473354
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9473354
Ethylbenzene	ug/L	0.56	0.20	9473354
Ethylene Dibromide	ug/L	<0.19	0.19	9473354
Hexane	ug/L	5.9	1.0	9473354
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9473354
Methyl Ethyl Ketone (2-Butanone)	ug/L	3300	10	9473354
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9473354
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9473354
Styrene	ug/L	<0.40	0.40	9473354
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9473354
1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	9473354
Tetrachloroethylene	ug/L	<0.20	0.20	9473354
Toluene	ug/L	5.1	0.20	9473354
RDL = Reportable Detection Limit QC Batch = Quality Control Batch	, <i>Si</i>		1	



Client Project #: OTT-23002538-A0

Sampler Initials: PO

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ZNM359		
Sampling Date		2024/06/21		
Sampling Bate		08:45		
COC Number		C#997614-02-01		
	UNITS	BH/MW-12	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9473354
1,1,2-Trichloroethane	ug/L	<0.40	0.40	9473354
Trichloroethylene	ug/L	1.9	0.20	9473354
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9473354
Vinyl Chloride	ug/L	<0.20	0.20	9473354
p+m-Xylene	ug/L	5.6	0.20	9473354
o-Xylene	ug/L	1.7	0.20	9473354
Total Xylenes	ug/L	7.3	0.20	9473354
Surrogate Recovery (%)	•	•		
4-Bromofluorobenzene	%	95		9473354
D4-1,2-Dichloroethane	%	106		9473354
D8-Toluene	%	88		9473354
RDL = Reportable Detection Limit	-			
QC Batch = Quality Control Batch				



Client Project #: OTT-23002538-A0

Sampler Initials: PO

## **TEST SUMMARY**

**Collected:** 2024/06/21 **Shipped: Received:** 2024/06/21 **Bureau Veritas ID:** ZNM359

Sample ID: BH/MW-12
Matrix: Water

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9472840	N/A	2024/06/24	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9473354	N/A	2024/06/24	Mariia Biliaieva



Client Project #: OTT-23002538-A0

Sampler Initials: PO

## **GENERAL COMMENTS**

Each to	emperature is the	average of up to t	ree cooler temperatures take	n at receipt	
	Package 1	14.0°C			
		•	'		
Result	s relate only to th	e items tested.			



## **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PO

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9473354	4-Bromofluorobenzene	2024/06/24	101	70 - 130	103	70 - 130	101	%		
9473354	D4-1,2-Dichloroethane	2024/06/24	102	70 - 130	102	70 - 130	108	%		
9473354	D8-Toluene	2024/06/24	104	70 - 130	104	70 - 130	87	%		
9473354	1,1,1,2-Tetrachloroethane	2024/06/24	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9473354	1,1,1-Trichloroethane	2024/06/24	100	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	1,1,2,2-Tetrachloroethane	2024/06/24	101	70 - 130	100	70 - 130	<0.40	ug/L	NC	30
9473354	1,1,2-Trichloroethane	2024/06/24	104	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
9473354	1,1-Dichloroethane	2024/06/24	100	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9473354	1,1-Dichloroethylene	2024/06/24	99	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	1,2-Dichlorobenzene	2024/06/24	98	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
9473354	1,2-Dichloroethane	2024/06/24	100	70 - 130	98	70 - 130	<0.49	ug/L	NC	30
9473354	1,2-Dichloropropane	2024/06/24	100	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9473354	1,3-Dichlorobenzene	2024/06/24	97	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
9473354	1,4-Dichlorobenzene	2024/06/24	97	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
9473354	Acetone (2-Propanone)	2024/06/24	101	60 - 140	101	60 - 140	<10	ug/L	NC	30
9473354	Benzene	2024/06/24	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9473354	Bromodichloromethane	2024/06/24	100	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9473354	Bromoform	2024/06/24	98	70 - 130	99	70 - 130	<1.0	ug/L	NC	30
9473354	Bromomethane	2024/06/24	91	60 - 140	84	60 - 140	<0.50	ug/L	NC	30
9473354	Carbon Tetrachloride	2024/06/24	100	70 - 130	95	70 - 130	<0.19	ug/L	NC	30
9473354	Chlorobenzene	2024/06/24	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	Chloroform	2024/06/24	98	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	cis-1,2-Dichloroethylene	2024/06/24	101	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9473354	cis-1,3-Dichloropropene	2024/06/24	103	70 - 130	97	70 - 130	<0.30	ug/L	NC	30
9473354	Dibromochloromethane	2024/06/24	99	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9473354	Dichlorodifluoromethane (FREON 12)	2024/06/24	85	60 - 140	79	60 - 140	<1.0	ug/L	NC	30
9473354	Ethylbenzene	2024/06/24	93	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9473354	Ethylene Dibromide	2024/06/24	100	70 - 130	100	70 - 130	<0.19	ug/L	NC	30
9473354	Hexane	2024/06/24	106	70 - 130	101	70 - 130	<1.0	ug/L	NC	30
9473354	Methyl Ethyl Ketone (2-Butanone)	2024/06/24	107	60 - 140	109	60 - 140	<10	ug/L	NC	30
9473354	Methyl Isobutyl Ketone	2024/06/24	110	70 - 130	114	70 - 130	<5.0	ug/L	NC	30
9473354	Methyl t-butyl ether (MTBE)	2024/06/24	97	70 - 130	97	70 - 130	<0.50	ug/L	NC	30



## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Sampler Initials: PO

			Matrix	Spike	SPIKED	BLANK	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9473354	Methylene Chloride(Dichloromethane)	2024/06/24	99	70 - 130	95	70 - 130	<2.0	ug/L	NC	30
9473354	o-Xylene	2024/06/24	91	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	p+m-Xylene	2024/06/24	94	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9473354	Styrene	2024/06/24	74	70 - 130	82	70 - 130	<0.40	ug/L	NC	30
9473354	Tetrachloroethylene	2024/06/24	101	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9473354	Toluene	2024/06/24	100	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9473354	Total Xylenes	2024/06/24					<0.20	ug/L	NC	30
9473354	trans-1,2-Dichloroethylene	2024/06/24	101	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
9473354	trans-1,3-Dichloropropene	2024/06/24	113	70 - 130	105	70 - 130	<0.40	ug/L	NC	30
9473354	Trichloroethylene	2024/06/24	99	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9473354	Trichlorofluoromethane (FREON 11)	2024/06/24	102	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9473354	Vinyl Chloride	2024/06/24	97	70 - 130	92	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).



Client Project #: OTT-23002538-A0

Sampler Initials: PO

#### **VALIDATION SIGNATURE PAGE**

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

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.

## Presence of Visible Particulate/Sediment

Maxxam Analytics CAM FCD-01013/5 Page 1 of 1

															В	ottle	Types	i i												
1				Ir	norgan	ics						0	rgani	cs							Hyd	rocarl	oons				Vola	tiles		Othe
	Sample ID	All	CrVI	CN	General	нв	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Herb	ABN	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
i	BH/MW-12	S	ħĒ.	H	Adj						N O												III.	ij.	T			= 8x1		
2																														
3					III.	7	ją.		8					Æ		J.								Fis	Ŋ,					
4																														
5		F	100													GENT.			- V	17.75		ig.				Ž.			N.	(a)
6																														
7						Ä			åE							je je			الن						203	34	45	W.		
8																														
9			106					ICIL M	Hg.	192-9															11/1					
10																														
	Comments:																													
														,																
		P	end:	ended F	articulati	e	_		_				-	1	R	ecord	lad By	/: (signat	tura la r	intl	1.10	2	P		DA.	c - 114	พท	20	-1	
		TS	-		Sedime		covers t	ottom o	f contai	ner or le	ess)		_	╁		ccord	cu b	· (Signat	ture/pr	mų	1	T	_	11	KE	SHI	1//-	m	J	
		s	-		eater tha	-						_		1																

BUREA VERITA	S	Bareau Veritas 6740 Campobello	Road, Mississauga, Onl	tario Canada L5N	2L8 Tel:(905) 8			(905) 817-5	5777 www.	bvna.com		Rec		l in Otta	WŒ	CHAIN	OF CUST	ropykechis	Н		e of	
	#47400 O					REPO	ORT TO:							T INFORMATION:					atory Use (			1
Company Nan	me: #17498 exp Se Accounts Pavab				ny Name:	da Kinana ada					Quotation#	Š.	C4151	13			-	Bureau Veritas Job #	t:	Bottle Ord	ler#:	4
Attention:	100-2650 Queer			Attentio		ris Kimmerly					P.O. #:			200000000000000000000000000000000000000			4					
Address:	Ottawa ON K2B			Addres	s:						Project:		011-2	23002538-A0				COC #:		997614		4
	(613) 688-1899		(613) 225-7337		-						Project Nam	ne:	\ <u></u>			1	-	Terra redesares		Project Mar	nager:	4
Tel: Email:	AP@exp.com; K			Tel:	Chr	ris.Kimmerly@ex	P. com				Site #:			01:01	Viven	1	- 1111111			Katherine S	zozda	1
PROPERTY AND ADDRESS OF THE PARTY AND ADDRESS	AND THE PROPERTY OF THE PARTY O		CONTROL WARRENCE WE ASSESSMENT AND ADDRESS OF THE PARTY O		Maria Maria Maria		p.com			THE RESERVE OF THE PARTY OF THE	Sampled By		VDI EACE D	BE SPECIFIC)	4 /ver	a		C#997614-02-01				_
MOEK	EGULATED DRINKIN SUBMITTED ON	THE BUREAU VE	RITAS DRINKING I	WATER CHAI	ONSUMPTI NOFCUSTO	ON MUST BE		-		ANA	LTSIS REQ	UESTEL	(PLEASE B	SE SPECIFIC)	T			Please provide ad	Time (TAT) R		THE PERSON	優
Canada	lation 153 (2011)		Other Regulation	SECTION SECURITION SECTION	Alexander Con	ial Instructions	(e):										Regular (S	tandard) TAT:				
	Res/Park Mediu	m/Fine CCME	Sanitary Sewer		1		- <u>g</u> =	ater)	-F4								A 120 CO	d if Rush TAT is not spe	NUCLOS STATES		-	
	Ind/Comm Coars				RUSH	24 hrs.	Cr	8	CF1-				1 1				l	r = 5-7 Working days for				1
	Agri/Other For R		Municipality	, many		777	eld Filtered (please ci	by HS	BTEX/F1		- 1						Please note: days - contac	Standard TAT for certain t your Project Manager fi	tests such as B or details.	DD and Dioxins/Fura	ns are > 5	
Table		PWQO	Reg 406 Table	e			red s/F	Csb	S. B.									c Rush TAT (if applies		niesion\		4
		Other					-ilte	VOCs	PHCs,	/ater	- 1						Date Require	24 hoe		ne Required:		
	Include Criteri	a on Certificate of	Analysis (Y/N)?		-		De Z	1153	Reg 153	.⊑					1		Rush Confirm	nation Number:				
Sam	nple Barcode Label		on) Identification	Date Sampled	Time Sampl	led Matrix	- E	O.Reg	O.Rec	BTEX in Water				-		(C	# of Bottles	2 9 6	Comme	all lab for #) ents		+
1		2 1															1.00	01				+
1		BHIMW	1-12	Ine 21/2	1 8hy	5 GW		X									2	* Plans	o K	USH 29	4 1/12.	5.4
2				10		0, 0									1			1 / 1893	1 / (	1517	////	7
2											1											
3																			-			1
•							ì															
4																					_	1
4																			]			
5																		元世纪	NONT-2	024-06-2275		+
5										1 1								H. J.G.	4			
																5			يخ			+
6										1 1			1									
_																		t				+
7																						
																						+
8												10										
9			-=-				1 12															1
9																						
10				-															-			1
																		10	CE PA	CK		
0	RELINQUISHED BY: (Si	gnature/Print)	Date: (YY/M	M/DD) T	ime	RECEIVED E	SY: (Signature/	Print)		Date: (YY/M	M/DD)	Т	ime	# jars used and			Labora	tory Use Only				1
FI	VP Min	ice.	2024-06	-21 94	15 Kgo	tie Szozda	Kato S	redo	6	2004100	6121	9:3	31	not submitted	Time S	ensitive	Temperati	ure (°C) on Recei	Custody Se	al Yes	No	1
,	Philip (	Mive va			5	A SUGXI	1 SAL	YAN			6/22		178	1			15/13		Intact		× ×	1
IT IS THE RESE	RWISE AGREED TO IN WE MENT AND ACCEPTANCE OF PONSIBILITY OF THE RELI	ETTING, WORK SUBMIT OF OUR TERMS WHICH NQUISHER TO ENSUR	H ARE AVAILABLE FOR	THE CHAIN OF C	W.BVNA.COM/EI JSTODY RECOR	NVIRONMENTAL-LABO	DARD TERMS A DRATORIES/RES CHAIN OF CUST	SOURCES/C	COC-TERN	GNING OF TH IS-AND-CON ANALYTICAL	HIS CHAIN O DITIONS. L TAT DELA	F CUSTO			ES MUST BE UNT	KEPT CO	OL ( < 10° C ) I RY TO BUREA	FROM TIME OF SAMPL U VERITAS	ING	Bureau Veritas Ye	- /	
SAMPLE CON	TAINER, PRESERVATION,	HOLD TIME AND PAC	KAGE INFORMATION C	AN BE VIEWED A	T WWW.BVNA.C	OM/ENVIRONMENTAL	-LABORATORI	ES/RESOUR	RCES/CHA	UN-CUSTODY	Y-FORMS-CO	ocs.							Cooling	Media Yes	No	1
								Bur	eau Verita	is Canada (20	)19) Inc.		57	5 15	•				_			_



Your Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Your C.O.C. #: C#1014063-01-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/09/30

Report #: R8342360 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4T9910 Received: 2024/09/24, 15:35

Sample Matrix: Water # Samples Received: 6

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
1,3-Dichloropropene Sum (1)	4	N/A	2024/09/30		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	2	N/A	2024/09/30	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	1	2024/09/29	2024/09/29	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds in Water (1)	4	N/A	2024/09/29	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, 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.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (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.



Your Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Your C.O.C. #: C#1014063-01-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/09/30

Report #: R8342360 Version: 1 - Final

## **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C4T9910 Received: 2024/09/24, 15:35

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to: Katherine Szozda, Project Manager Email: Katherine.Szozda@bureauveritas.com Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

# PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		ADWW18		
Campling Dato		2024/09/24		
Sampling Date		11:40		
COC Number		C#1014063-01-01		
	UNITS	MW/BH-10	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	9670442
Toluene	ug/L	<0.20	0.20	9670442
Ethylbenzene	ug/L	<0.20	0.20	9670442
o-Xylene	ug/L	<0.20	0.20	9670442
p+m-Xylene	ug/L	<0.40	0.40	9670442
Total Xylenes	ug/L	<0.40	0.40	9670442
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	98		9670442
4-Bromofluorobenzene	%	96		9670442
D10-o-Xylene	%	97		9670442
D4-1,2-Dichloroethane	%	100		9670442
RDL = Reportable Detection	Limit			
QC Batch = Quality Control B	atch			



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

# O.REG 153 PHCS, BTEX/F1-F4 (WATER)

	ADWW17		
	2024/09/24		
	12:25		
	C#1014063-01-01		
UNITS	MW/BH-8	RDL	QC Batch
ug/L	2.2	0.20	9670442
ug/L	<0.20	0.20	9670442
ug/L	0.69	0.20	9670442
ug/L	<0.20	0.20	9670442
ug/L	<0.40	0.40	9670442
ug/L	<0.40	0.40	9670442
ug/L	<25	25	9670442
ug/L	<25	25	9670442
ug/L	<90	90	9670370
ug/L	<200	200	9670370
ug/L	<200	200	9670370
ug/L	Yes		9670370
•			
%	102		9670442
%	103		9670442
%	109		9670442
%	102		9670442
%	97		9670370
imit			
atch			
	ug/L   wg/L   wg/L	2024/09/24   12:25   C#1014063-01-01   UNITS   MW/BH-8     Ug/L	2024/09/24   12:25



Report Date: 2024/09/30

exp Services Inc

Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ADWW13	ADWW14	ADWW15	ADWW16		
		2024/09/24	2024/09/24	2024/09/24	2024/09/24		
Sampling Date		10:20	09:55	12:30	13:45		
COC Number		C#1014063-01-01	C#1014063-01-01	C#1014063-01-01	C#1014063-01-01		
	UNITS	MW/BH-1	MW/BH-2	MW/BH-3	MW/BH-4	RDL	QC Batch
Calculated Parameters		•	•	•	•		
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9663211
Volatile Organics	<u> </u>					!	
Acetone (2-Propanone)	ug/L	81	<10	<10	<10	10	9665960
Benzene	ug/L	<0.20	1.6	<0.20	<0.20	0.20	9665960
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9665960
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
Carbon Tetrachloride	ug/L	<0.19	<0.19	<0.19	<0.19	0.19	9665960
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9665960
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
1,2-Dichloroethane	ug/L	<0.49	<0.49	<0.49	<0.49	0.49	9665960
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	9665960
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
Ethylene Dibromide	ug/L	<0.19	<0.19	<0.19	<0.19	0.19	9665960
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	9665960
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	9665960
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	10	9665960
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	9665960
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
Styrene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
RDL = Reportable Detection Limit							

QC Batch = Quality Control Batch



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		ADWW13	ADWW14	ADWW15	ADWW16		
Compling Data		2024/09/24	2024/09/24	2024/09/24	2024/09/24		
Sampling Date		10:20	09:55	12:30	13:45		
COC Number		C#1014063-01-01	C#1014063-01-01	C#1014063-01-01	C#1014063-01-01		
	UNITS	MW/BH-1	MW/BH-2	MW/BH-3	MW/BH-4	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	3.8	<0.20	0.20	9665960
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	9665960
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	9665960
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
p+m-Xylene	ug/L	0.33	<0.20	<0.20	<0.20	0.20	9665960
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	9665960
Total Xylenes	ug/L	0.33	<0.20	<0.20	<0.20	0.20	9665960
Surrogate Recovery (%)	•						
4-Bromofluorobenzene	%	95	95	98	94		9665960
D4-1,2-Dichloroethane	%	110	112	112	113		9665960
D8-Toluene	%	91	92	91	92		9665960
RDL = Reportable Detection Limit	•					•	

QC Batch = Quality Control Batch



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

#### **TEST SUMMARY**

Bureau Veritas ID: ADWW13

Sample ID: MW/BH-1

Matrix: Water

Collected: 2024/09/24 Shipped:

Received: 2024/09/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9663211	N/A	2024/09/30	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9665960	N/A	2024/09/29	Noel Ramos

Bureau Veritas ID: ADWW14

Sample ID: MW/BH-2

Matrix: Water

Collected: 2024/09/24 Shipped:

Received: 2024/09/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9663211	N/A	2024/09/30	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9665960	N/A	2024/09/29	Noel Ramos

Bureau Veritas ID: ADWW15

Sample ID: MW/BH-3

Matrix: Water Collected: 2024/09/24 Shipped:

2024/09/24 Received:

Test Description	Instrumentation	Instrumentation Batch		Date Analyzed	Analyst		
1,3-Dichloropropene Sum	CALC	9663211	N/A	2024/09/30	Automated Statchk		
Volatile Organic Compounds in Water	GC/MS	9665960	N/A	2024/09/29	Noel Ramos		

Bureau Veritas ID: ADWW16

Sample ID: MW/BH-4

Matrix: Water Collected: 2024/09/24 Shipped:

Received: 2024/09/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9663211	N/A	2024/09/30	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9665960	N/A	2024/09/29	Noel Ramos

Bureau Veritas ID: ADWW17

MW/BH-8 Sample ID:

Matrix: Water Collected: 2024/09/24

Shipped:

Received: 2024/09/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9670442	N/A	2024/09/30	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9670370	2024/09/29	2024/09/29	Suleega Nurr

Bureau Veritas ID: ADWW18 Sample ID:

MW/BH-10

Matrix: Water Collected: 2024/09/24 Shipped:

Received: 2024/09/24

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9670442	N/A	2024/09/30	Lincoln Ramdahin



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

## **GENERAL COMMENTS**

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

Package 1 22.3°C

Results relate only to the items tested.



## **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9665960	4-Bromofluorobenzene	2024/09/28	96	70 - 130	97	70 - 130	98	%		
9665960	D4-1,2-Dichloroethane	2024/09/28	106	70 - 130	103	70 - 130	107	%		
9665960	D8-Toluene	2024/09/28	103	70 - 130	105	70 - 130	93	%		
9670370	o-Terphenyl	2024/09/29	99	60 - 140	100	60 - 140	100	%		
9670442	1,4-Difluorobenzene	2024/09/29	103	70 - 130	100	70 - 130	97	%		
9670442	4-Bromofluorobenzene	2024/09/29	94	70 - 130	96	70 - 130	98	%		
9670442	D10-o-Xylene	2024/09/29	98	70 - 130	100	70 - 130	100	%		
9670442	D4-1,2-Dichloroethane	2024/09/29	104	70 - 130	100	70 - 130	96	%		
9665960	1,1,1,2-Tetrachloroethane	2024/09/28	112	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
9665960	1,1,1-Trichloroethane	2024/09/28	99	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9665960	1,1,2,2-Tetrachloroethane	2024/09/28	107	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
9665960	1,1,2-Trichloroethane	2024/09/28	110	70 - 130	105	70 - 130	<0.40	ug/L	NC	30
9665960	1,1-Dichloroethane	2024/09/28	104	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9665960	1,1-Dichloroethylene	2024/09/28	99	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9665960	1,2-Dichlorobenzene	2024/09/28	104	70 - 130	102	70 - 130	<0.40	ug/L	NC	30
9665960	1,2-Dichloroethane	2024/09/28	112	70 - 130	107	70 - 130	<0.49	ug/L	NC	30
9665960	1,2-Dichloropropane	2024/09/28	110	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
9665960	1,3-Dichlorobenzene	2024/09/28	100	70 - 130	98	70 - 130	<0.40	ug/L	NC	30
9665960	1,4-Dichlorobenzene	2024/09/28	102	70 - 130	101	70 - 130	<0.40	ug/L	NC	30
9665960	Acetone (2-Propanone)	2024/09/28	111	60 - 140	112	60 - 140	<10	ug/L	NC	30
9665960	Benzene	2024/09/28	105	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9665960	Bromodichloromethane	2024/09/28	105	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9665960	Bromoform	2024/09/28	105	70 - 130	107	70 - 130	<1.0	ug/L	NC	30
9665960	Bromomethane	2024/09/28	85	60 - 140	85	60 - 140	<0.50	ug/L	NC	30
9665960	Carbon Tetrachloride	2024/09/28	105	70 - 130	103	70 - 130	<0.19	ug/L	NC	30
9665960	Chlorobenzene	2024/09/28	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9665960	Chloroform	2024/09/28	106	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9665960	cis-1,2-Dichloroethylene	2024/09/28	111	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
9665960	cis-1,3-Dichloropropene	2024/09/28	92	70 - 130	95	70 - 130	<0.30	ug/L	NC	30
9665960	Dibromochloromethane	2024/09/28	110	70 - 130	107	70 - 130	<0.50	ug/L	NC	30
9665960	Dichlorodifluoromethane (FREON 12)	2024/09/28	80	60 - 140	73	60 - 140	<1.0	ug/L	NC	30
9665960	Ethylbenzene	2024/09/28	94	70 - 130	96	70 - 130	<0.20	ug/L	NC	30



Bureau Veritas Job #: C4T9910 Report Date: 2024/09/30

# QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9665960	Ethylene Dibromide	2024/09/28	108	70 - 130	105	70 - 130	<0.19	ug/L	NC	30
9665960	Hexane	2024/09/28	114	70 - 130	115	70 - 130	<1.0	ug/L	NC	30
9665960	Methyl Ethyl Ketone (2-Butanone)	2024/09/28	124	60 - 140	121	60 - 140	<10	ug/L	NC	30
9665960	Methyl Isobutyl Ketone	2024/09/28	117	70 - 130	115	70 - 130	<5.0	ug/L	NC	30
9665960	Methyl t-butyl ether (MTBE)	2024/09/28	100	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9665960	Methylene Chloride(Dichloromethane)	2024/09/28	108	70 - 130	102	70 - 130	<2.0	ug/L	NC	30
9665960	o-Xylene	2024/09/28	98	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
9665960	p+m-Xylene	2024/09/28	95	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9665960	Styrene	2024/09/28	95	70 - 130	105	70 - 130	<0.40	ug/L	NC	30
9665960	Tetrachloroethylene	2024/09/28	98	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9665960	Toluene	2024/09/28	103	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
9665960	Total Xylenes	2024/09/28					<0.20	ug/L	NC	30
9665960	trans-1,2-Dichloroethylene	2024/09/28	109	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9665960	trans-1,3-Dichloropropene	2024/09/28	106	70 - 130	111	70 - 130	<0.40	ug/L	NC	30
9665960	Trichloroethylene	2024/09/28	101	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
9665960	Trichlorofluoromethane (FREON 11)	2024/09/28	98	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
9665960	Vinyl Chloride	2024/09/28	99	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9670370	F2 (C10-C16 Hydrocarbons)	2024/09/29	103	60 - 140	100	60 - 140	<90	ug/L	NC	30
9670370	F3 (C16-C34 Hydrocarbons)	2024/09/29	105	60 - 140	102	60 - 140	<200	ug/L	NC	30
9670370	F4 (C34-C50 Hydrocarbons)	2024/09/29	98	60 - 140	95	60 - 140	<200	ug/L	NC	30
9670442	Benzene	2024/09/29	103	50 - 140	104	50 - 140	<0.20	ug/L	NC	30
9670442	Ethylbenzene	2024/09/29	101	50 - 140	96	50 - 140	<0.20	ug/L	NC	30
9670442	F1 (C6-C10) - BTEX	2024/09/29					<25	ug/L	NC	30
9670442	F1 (C6-C10)	2024/09/29	109	60 - 140	111	60 - 140	<25	ug/L	NC	30
9670442	o-Xylene	2024/09/29	98	50 - 140	102	50 - 140	<0.20	ug/L	NC	30
9670442	p+m-Xylene	2024/09/29	95	50 - 140	99	50 - 140	<0.40	ug/L	NC	30
9670442	Toluene	2024/09/29	94	50 - 140	95	50 - 140	<0.20	ug/L	3.4	30



Bureau Veritas Job #: C4T9910 Report Date: 2024/09/30

## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9670442	Total Xylenes	2024/09/29					<0.40	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).



Client Project #: OTT-23002538-B0

Site Location: 1822, 1846 BANK & WALKLEY

Sampler Initials: SA

#### **VALIDATION SIGNATURE PAGE**

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

Louise Harding, 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.

T9910	1																	
24/09/24 15:35		u Veritas Campobello Road, M	ississauga, Ontario (	Canada L5N 2	!L8 Tel:(905) 817-5	700 Toll-free:800	563 6266 Fax	(905) 817-	5777 www.b	ovna.com						36 m		Page of
VERITAS	INVOICE	TO:		1		REPO	RT TO:						PROJECT	T INFORMATION:	- 68.	PH,	IONT-2024-09-5076	o Only:
ompany Name: #17498	exp Services I	Inc		Compan	v Name:	XP					Quotation	#-	C4151				10111-2024-09-5076	Bottle Order #:
ttention: Accounts	Payable			Attention	01 : 14	immerly					P.O. #:	<b>#</b> .						
dul 633.	Queensview	Drive		Address:	265	o Quee	w Vie	Per Dr	· 10th	wer.	Project:		_	3002538-B0			¥	1014063
(040) 000	N K2B 8H6	- (613	3) 225-7337	_	-				*		Project Na	ime:	(855	11846 B	nk Que	1	COC #:	Project Manager:
		urke@exp.com	0) 225-1551	Tel:	Chris.K	immerly@ex	.com <	- hus.	7.01	1-1-10	Site #:	com	C 1 - 1	myna 7 11	- 1 -1 -1 -1		C#1014063-01-01	Katherine Szozda
MOE REGULATED D	110 - 1 - 170 - 134 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	MARKET THE PARTY OF THE PARTY O	CARDIN NUMBER OF THE PARTY OF T	_			7 37	Lacrojac	CAD				-	E SPECIFIC)	DARTHON	Deh	Turnaround Time (TA	AT) Required:
			DRINKING WAT			WOOT DE											Please provide advance not	
Regulation 153 (2011)	)	Ott	her Regulations		Special In	structions	icle										(Standard) TAT: plied if Rush TAT is not specified):	
			Sanitary Sewer Byla	w			Field Filtered (please circle): Metals / Hg / Cr VI		F1-F4							100	TAT = 5-7 Working days for most tests	E
Table 2 Ind/Comm [ Table 3 Agri/Other [	_		Storm Sewer Bylaw inicipality				(plea	E S	BTEX/F							Please no	te: Standard TAT for certain tests such tact your Project Manager for details.	as BOD and Dioxins/Furans are >
Table			Reg 406 Table				red S/H	153 VOCs by HS	Cs, B								cific Rush TAT (if applies to entire	submission)
		Other					Filte	3 40	B PH							Date Requ	AND AND ADDRESS OF THE PARTY OF	_ Time Required:
Includ	e Criteria on Ce	rtificate of Analy	sis (Y/N)?	_	1		pield N	Reg 15	Reg 153 PHCs,	_						Rush Con	firmation Number:	(call lab for #)
Sample Barcode Lab	oel Sa	imple (Location) Iden	tification Da	te Sampled	Time Sampled	Matrix	L.	O.Re	O.Re	втех						# of Bottle	es C	omments
BMW 134-	1		202	4.09.24	10:20	G- W		/								2		
Mw1BH-	2			1	9:55			1								2		
	2							1								2		
Mw 13 H-	5			+	12130	_		,	_									
MW/BH.	- 4			_	1:45			V								2		
Mw/3H-	8			-	12:15				V	V						4		
HW 1314-1	10				11;210					~						2		
,																		
												<u></u>						
								-										
* RELINQUISHE	D BY: (Signature/	Print)	Date: (YY/MM/DD	) Tir	me	RECEIVED F	Y: (Signature/	Print)		Date: (YY/I	MM/DD)	Ti	me	# jars used and		l ahr	pratory Use Only	
habenes n	bdolMa		2024/09/2	-	20 Red		la. /	100		24/09		15		not submitted	Time Sensiti	-	Custo	dy Seal Yes No
man 17	- DOLLING	11111	200.10112	3:	1 da	Suga	1 CA	211/2		024/6		08				Temper	Pre:	sent 4
ILESS OTHERWISE AGREED KNOWLEDGMENT AND ACCE IS THE RESPONSIBILITY OF	THE RELINQUISHE	ERMS WHICH ARE A	ACCURACY OF THE	CHAIN OF CU	I.BVNA.COM/ENVIR	VERITAS'S STAN ONMENTAL-LABO N INCOMPLETE O	DARD TERMS A RATORIES/RE HAIN OF CUST	AND CONDI SOURCES/ ODY MAY I	COC-TERM	SNING OF T IS-AND-CO ANALYTIC	THIS CHAIN NDITIONS. AL TAT DEL	OF CUSTO			S MUST BE KEP UNTIL DE		O) FROM TIME OF SAMPLING EAU VERITAS	ite: Bureau Veritas Yellow: Cl ustody Seal Present In poling Media Yes No

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Job #: C4T9910 Report Date: 2024/09/30 Bureau Veritas Sample: ADWW17

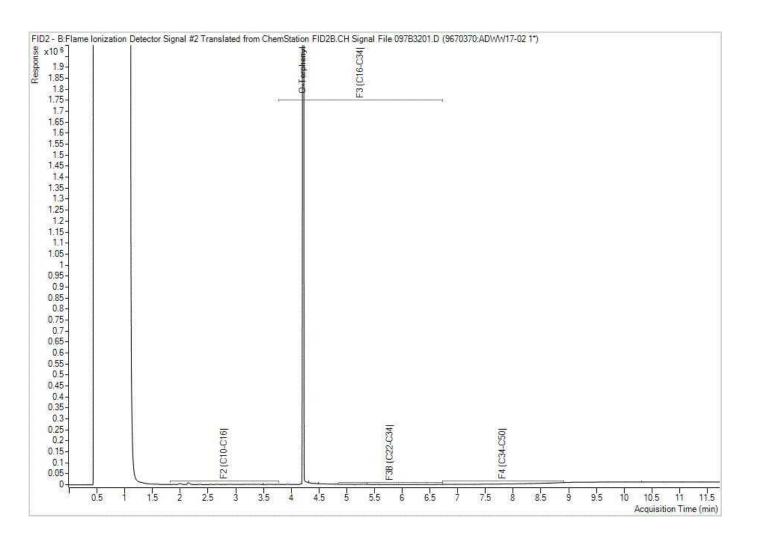
exp Services Inc

Client Project #: OTT-23002538-B0

Project name: 1822, 1846 BANK & WALKLEY

Client ID: MW/BH-8

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.



#### **Attention: Chris Kimmerly**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/03/21

Report #: R8075057 Version: 1 - Final

# CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C479565 Received: 2024/03/15, 14:31

Sample Matrix: Ground Water # Samples Received: 5

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
1,3-Dichloropropene Sum (1)	2	N/A	2024/03/21		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	3	N/A	2024/03/19	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	2	2024/03/19	2024/03/19	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds in Water (1)	2	N/A	2024/03/20	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, 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.

- $^{st}$  RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (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.



**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/03/21

Report #: R8075057 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C479565 Received: 2024/03/15, 14:31

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to: Katherine Szozda, Project Manager Email: Katherine.Szozda@bureauveritas.com Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



# PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		YQN538		
Sampling Date		2024/03/15		
Sampling Date		12:40		
	UNITS	BH-10/MW	RDL	QC Batch
BTEX & F1 Hydrocarbons				
Benzene	ug/L	<0.20	0.20	9282182
Toluene	ug/L	<0.20	0.20	9282182
Ethylbenzene	ug/L	<0.20	0.20	9282182
o-Xylene	ug/L	<0.20	0.20	9282182
p+m-Xylene	ug/L	<0.40	0.40	9282182
Total Xylenes	ug/L	<0.40	0.40	9282182
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	100		9282182
4-Bromofluorobenzene	%	96		9282182
D10-o-Xylene	%	99		9282182
D4-1,2-Dichloroethane	%	121		9282182
RDL = Reportable Detection L	imit			
QC Batch = Quality Control Ba	atch			



# O.REG 153 PHCS, BTEX/F1-F4 (GROUND WATER)

Bureau Veritas ID		YQN539	YQN540		
Sampling Date		2024/03/15	2024/03/15		
Sampling Date		13:15	13:15		
	UNITS	BH-8/MW	DUP	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	0.70	0.69	0.20	9282067
Toluene	ug/L	<0.20	<0.20	0.20	9282067
Ethylbenzene	ug/L	1.3	1.2	0.20	9282067
o-Xylene	ug/L	<0.20	<0.20	0.20	9282067
p+m-Xylene	ug/L	2.5	2.3	0.40	9282067
Total Xylenes	ug/L	2.5	2.3	0.40	9282067
F1 (C6-C10)	ug/L	<25	<25	25	9282067
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	9282067
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	9282174
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	9282174
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	9282174
Reached Baseline at C50	ug/L	Yes	Yes		9282174
Surrogate Recovery (%)			-		
1,4-Difluorobenzene	%	98	100		9282067
4-Bromofluorobenzene	%	96	96		9282067
D10-o-Xylene	%	96	97		9282067
D4-1,2-Dichloroethane	%	111	114		9282067
o-Terphenyl	%	101	98		9282174
RDL = Reportable Detection L	imit				
QC Batch = Quality Control Ba	atch				

# O.REG 153 VOCS BY HS (WATER)

	1	_	_		
Bureau Veritas ID		YQN536	YQN537		
Sampling Date		2024/03/15	2024/03/15		
		11:25	10:25		
	UNITS	BH-3/MW	BH-4/MW	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	9280294
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	9283131
Benzene	ug/L	<0.20	<0.20	0.20	9283131
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	9283131
Bromoform	ug/L	<1.0	<1.0	1.0	9283131
Bromomethane	ug/L	<0.50	<0.50	0.50	9283131
Carbon Tetrachloride	ug/L	<0.19	<0.19	0.19	9283131
Chlorobenzene	ug/L	<0.20	<0.20	0.20	9283131
Chloroform	ug/L	<0.20	<0.20	0.20	9283131
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	9283131
1,2-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9283131
1,3-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9283131
1,4-Dichlorobenzene	ug/L	<0.40	<0.40	0.40	9283131
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	9283131
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	9283131
1,2-Dichloroethane	ug/L	<0.49	<0.49	0.49	9283131
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	9283131
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	9283131
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	9283131
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	9283131
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	9283131
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	9283131
Ethylbenzene	ug/L	<0.20	0.26	0.20	9283131
Ethylene Dibromide	ug/L	<0.19	<0.19	0.19	9283131
Hexane	ug/L	<1.0	<1.0	1.0	9283131
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	9283131
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	9283131
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	9283131
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	9283131
Styrene	ug/L	<0.40	<0.40	0.40	9283131
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	9283131
1,1,2,2-Tetrachloroethane	ug/L	<0.40	<0.40	0.40	9283131
Tetrachloroethylene	ug/L	0.47	<0.20	0.20	9283131
Toluene	ug/L	<0.20	1.4	0.20	9283131
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	9283131
RDL = Reportable Detection Limit	<u>.</u> 3,				
QC Batch = Quality Control Batch					



# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YQN536	YQN537		
Sampling Date		2024/03/15	2024/03/15		
		11:25	10:25		
	UNITS	BH-3/MW	BH-4/MW	RDL	QC Batch
1,1,2-Trichloroethane	ug/L	<0.40	<0.40	0.40	9283131
Trichloroethylene	ug/L	<0.20	<0.20	0.20	9283131
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	9283131
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	9283131
p+m-Xylene	ug/L	<0.20	1.1	0.20	9283131
o-Xylene	ug/L	<0.20	0.52	0.20	9283131
Total Xylenes	ug/L	<0.20	1.7	0.20	9283131
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	100	100		9283131
D4-1,2-Dichloroethane	%	117	120		9283131
D8-Toluene	%	85	84		9283131
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					

QC Batch = Quality Control Batch



#### **TEST SUMMARY**

Bureau Veritas ID: YQN536

Sample ID: BH-3/MW

Matrix: Ground Water

**Collected:** 2024/03/15

Shipped:

**Received:** 2024/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9280294	N/A	2024/03/21	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9283131	N/A	2024/03/20	Mariia Biliaieva

Bureau Veritas ID: YQN537

Sample ID: BH-4/MW

Matrix: Ground Water

**Collected:** 2024/03/15

Shipped: Received: 2024/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9280294	N/A	2024/03/21	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	9283131	N/A	2024/03/20	Mariia Biliaieva

**Bureau Veritas ID:** YQN538

Sample ID: BH-10/MW

Matrix: Ground Water

**Collected:** 2024/03/15

Shipped: Received: 2024/03/15

Test DescriptionInstrumentationBatchExtractedDate AnalyzedAnalystPetroleum Hydro. CCME F1 & BTEX in WaterHSGC/MSFD9282182N/A2024/03/19Georgeta Rusu

**Bureau Veritas ID:** YQN539

Sample ID: BH-8/MW

Matrix: Ground Water

**Collected:** 2024/03/15

Shipped:

Received: 2024/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9282067	N/A	2024/03/19	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9282174	2024/03/19	2024/03/19	Jeevaraj Jeevaratrnam

**Bureau Veritas ID:** YQN540

Sample ID: DUP

Matrix: Ground Water

**Collected:** 2024/03/15

Shipped:

Received: 2024/03/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	9282067	N/A	2024/03/19	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9282174	2024/03/19	2024/03/19	Jeevaraj Jeevaratrnam



### **GENERAL COMMENTS**

Each te	emperature is the a	verage of up to t	ree cooler temperatures taken at rec	eipt	
	Package 1	8.3°C			
	•	·	•		

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

exp Services Inc Sampler Initials: SHA

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9282067	1,4-Difluorobenzene	2024/03/19	98	70 - 130	97	70 - 130	99	%		
9282067	4-Bromofluorobenzene	2024/03/19	104	70 - 130	102	70 - 130	97	%		
9282067	D10-o-Xylene	2024/03/19	106	70 - 130	106	70 - 130	95	%		
9282067	D4-1,2-Dichloroethane	2024/03/19	109	70 - 130	109	70 - 130	107	%		
9282174	o-Terphenyl	2024/03/19	100	60 - 130	102	60 - 130	100	%		
9282182	1,4-Difluorobenzene	2024/03/19	98	70 - 130	96	70 - 130	102	%		
9282182	4-Bromofluorobenzene	2024/03/19	102	70 - 130	103	70 - 130	100	%		
9282182	D10-o-Xylene	2024/03/19	104	70 - 130	104	70 - 130	95	%		
9282182	D4-1,2-Dichloroethane	2024/03/19	115	70 - 130	113	70 - 130	122	%		
9283131	4-Bromofluorobenzene	2024/03/20	109	70 - 130	109	70 - 130	104	%		
9283131	D4-1,2-Dichloroethane	2024/03/20	102	70 - 130	99	70 - 130	113	%		
9283131	D8-Toluene	2024/03/20	104	70 - 130	105	70 - 130	85	%		
9282067	Benzene	2024/03/19	98	50 - 140	96	50 - 140	<0.20	ug/L	NC	30
9282067	Ethylbenzene	2024/03/19	98	50 - 140	101	50 - 140	<0.20	ug/L	NC	30
9282067	F1 (C6-C10) - BTEX	2024/03/19					<25	ug/L	NC	30
9282067	F1 (C6-C10)	2024/03/19	102	60 - 140	102	60 - 140	<25	ug/L	NC	30
9282067	o-Xylene	2024/03/19	100	50 - 140	100	50 - 140	<0.20	ug/L	NC	30
9282067	p+m-Xylene	2024/03/19	95	50 - 140	95	50 - 140	<0.40	ug/L	NC	30
9282067	Toluene	2024/03/19	93	50 - 140	92	50 - 140	<0.20	ug/L	NC	30
9282067	Total Xylenes	2024/03/19					<0.40	ug/L	NC	30
9282174	F2 (C10-C16 Hydrocarbons)	2024/03/19	96	60 - 130	103	60 - 130	<100	ug/L	NC	30
9282174	F3 (C16-C34 Hydrocarbons)	2024/03/19	105	60 - 130	107	60 - 130	<200	ug/L	NC	30
9282174	F4 (C34-C50 Hydrocarbons)	2024/03/19	97	60 - 130	99	60 - 130	<200	ug/L	NC	30
9282182	Benzene	2024/03/19	107	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
9282182	Ethylbenzene	2024/03/19	104	50 - 140	104	50 - 140	<0.20	ug/L	NC	30
9282182	o-Xylene	2024/03/19	102	50 - 140	101	50 - 140	<0.20	ug/L	NC	30
9282182	p+m-Xylene	2024/03/19	98	50 - 140	97	50 - 140	<0.40	ug/L	NC	30
9282182	Toluene	2024/03/19	99	50 - 140	97	50 - 140	<0.20	ug/L	NC	30
9282182	Total Xylenes	2024/03/19					<0.40	ug/L	NC	30
9283131	1,1,1,2-Tetrachloroethane	2024/03/20	99	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9283131	1,1,1-Trichloroethane	2024/03/20	99	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9283131	1,1,2,2-Tetrachloroethane	2024/03/20	99	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
9283131	1,1,2-Trichloroethane	2024/03/20	92	70 - 130	89	70 - 130	<0.40	ug/L	NC	30



### QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc Sampler Initials: SHA

			Matrix	Spike	SPIKED	BLANK	Method I	Blank	RPI	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9283131	1,1-Dichloroethane	2024/03/20	96	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9283131	1,1-Dichloroethylene	2024/03/20	94	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9283131	1,2-Dichlorobenzene	2024/03/20	97	70 - 130	93	70 - 130	<0.40	ug/L	NC	30
9283131	1,2-Dichloroethane	2024/03/20	94	70 - 130	90	70 - 130	<0.49	ug/L	NC	30
9283131	1,2-Dichloropropane	2024/03/20	92	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9283131	1,3-Dichlorobenzene	2024/03/20	98	70 - 130	96	70 - 130	<0.40	ug/L	NC	30
9283131	1,4-Dichlorobenzene	2024/03/20	112	70 - 130	109	70 - 130	<0.40	ug/L	NC	30
9283131	Acetone (2-Propanone)	2024/03/20	91	60 - 140	87	60 - 140	<10	ug/L	NC	30
9283131	Benzene	2024/03/20	88	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9283131	Bromodichloromethane	2024/03/20	103	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
9283131	Bromoform	2024/03/20	91	70 - 130	87	70 - 130	<1.0	ug/L	NC	30
9283131	Bromomethane	2024/03/20	89	60 - 140	88	60 - 140	<0.50	ug/L	NC	30
9283131	Carbon Tetrachloride	2024/03/20	98	70 - 130	98	70 - 130	<0.19	ug/L	NC	30
9283131	Chlorobenzene	2024/03/20	100	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9283131	Chloroform	2024/03/20	101	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9283131	cis-1,2-Dichloroethylene	2024/03/20	102	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9283131	cis-1,3-Dichloropropene	2024/03/20	92	70 - 130	89	70 - 130	<0.30	ug/L	NC	30
9283131	Dibromochloromethane	2024/03/20	102	70 - 130	89	70 - 130	<0.50	ug/L	NC	30
9283131	Dichlorodifluoromethane (FREON 12)	2024/03/20	86	60 - 140	87	60 - 140	<1.0	ug/L	NC	30
9283131	Ethylbenzene	2024/03/20	87	70 - 130	86	70 - 130	<0.20	ug/L	NC	30
9283131	Ethylene Dibromide	2024/03/20	97	70 - 130	93	70 - 130	<0.19	ug/L	NC	30
9283131	Hexane	2024/03/20	96	70 - 130	96	70 - 130	<1.0	ug/L	NC	30
9283131	Methyl Ethyl Ketone (2-Butanone)	2024/03/20	100	60 - 140	93	60 - 140	<10	ug/L	NC	30
9283131	Methyl Isobutyl Ketone	2024/03/20	100	70 - 130	92	70 - 130	<5.0	ug/L	NC	30
9283131	Methyl t-butyl ether (MTBE)	2024/03/20	94	70 - 130	92	70 - 130	<0.50	ug/L	NC	30
9283131	Methylene Chloride(Dichloromethane)	2024/03/20	98	70 - 130	95	70 - 130	<2.0	ug/L	NC	30
9283131	o-Xylene	2024/03/20	78	70 - 130	83	70 - 130	<0.20	ug/L	NC	30
9283131	p+m-Xylene	2024/03/20	77	70 - 130	76	70 - 130	<0.20	ug/L	NC	30
9283131	Styrene	2024/03/20	88	70 - 130	88	70 - 130	<0.40	ug/L	NC	30
9283131	Tetrachloroethylene	2024/03/20	100	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9283131	Toluene	2024/03/20	93	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
9283131	Total Xylenes	2024/03/20					<0.20	ug/L	NC	30
9283131	trans-1,2-Dichloroethylene	2024/03/20	99	70 - 130	98	70 - 130	<0.50	ug/L	NC	30



Bureau Veritas Job #: C479565 Report Date: 2024/03/21

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

exp Services Inc Sampler Initials: SHA

			Matrix Spike		SPIKED	BLANK	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9283131	trans-1,3-Dichloropropene	2024/03/20	100	70 - 130	98	70 - 130	<0.40	ug/L	NC	30
9283131	Trichloroethylene	2024/03/20	101	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
9283131	Trichlorofluoromethane (FREON 11)	2024/03/20	103	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
9283131	Vinyl Chloride	2024/03/20	90	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).



#### **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.

6740 Campobello Road, Mississauga, Ontario LSN 71.8 Phone: 305-817-5700 Fax: 905-817-5779 Toll Fire: 800-563-6266

### Received in Ottowelain of Custody RECORD

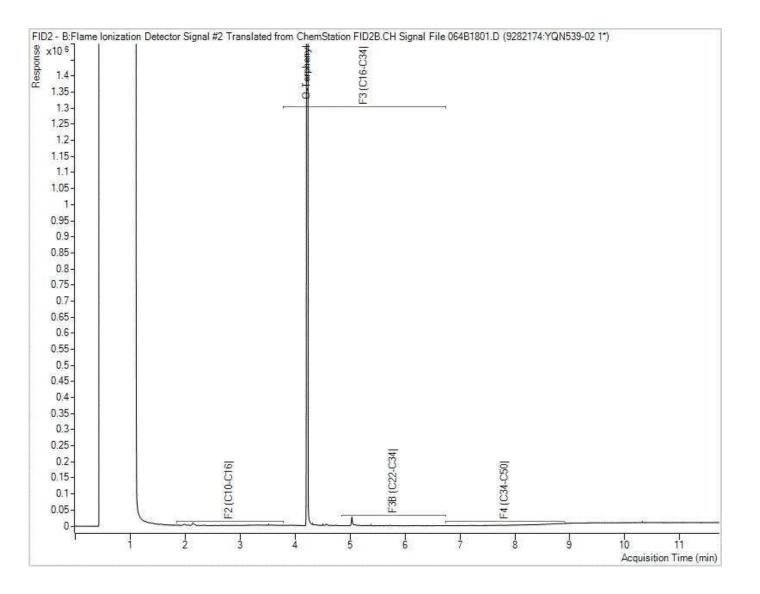
ENV CO€ - 00014v5

Pages \_ 1 or 1

Invoice Information Invoice to (requires report)	Report information (if differs from	(Thysics)	T	Project information	1
company: Exp Services Inc.	Company:		Quatation ₹:		
Contact Name: Chris Kimmerly	Costact Manc:	0	P.O. II/ AFER:		LAB USF ONLY - PLACE STICKER HERE
street Address. 2650 Queen's View dri	Street Andress:		Project #:		USB USF ONLS - MALE STICKER HERE
City: OTTAWA Provide Code:	City: Prav:	Pristal Code:	Sets #ft		
Phone: 613-863-1891	Phone:	Tuede:	Site Location:		·
Email: Christ Kimmerly Dext. com	Email:		She Location		Rush Confirmative a:
Copies:	C66/25		Province: Sumpled By:		
Tolie 1 Roy Purk I Next Fine B Court Fine B	CAM hay 106, Table   Sentrary Sewer Bytas   Mist a Sentrary Sewer Bytas   Mist a Sentrary Sewer Bytas   Mist a Municipality   PWQV   Other:   Analysis followis filescape   Other:   Analysis followis filescape   Mist a Municipality   Other:   Analysis followis filescape   Mist a Municipality   Mist a Municipality   Mist a M		54 6 7 B	8 9 10 11 12 13 14 15 16 17 U	5 19 20 21 22 negative transferont time (PA)  Sto 7 Day 10 Day  Decrease Count time (PA)
Sample (Jenni Satten (Pleas point of Nem)	Stree Consider Street Water Wa	SED HET WEET THE SECOND	VØCS for 100 minuts ann form	P HC	Same Coy 1 Doy    Same Coy 1 Doy   2 Listy
BHIMW 3	2024 Mar. 15 11 25 cm C-4	,	V		2
BH/MW4	1 10 olsam C	1 1 1	1		2
1 2 11/4/10				+++++++++	+
BAIMO	12 40 pm C-6				
BH/MW 8	Se 1 1 Spm C				
BH/MW 8	I I I I I I I I I I I I I I I I I I I	w v			6
					+++4
			TTT	15-Mar-24 14:31	
				Katherine Szozda	
			++		
				C479565	
1.01				. (4/9303	
12				VIY ENV-1374	
			TITT		
concentrate a substitution of the facility of					
Seet prosent Seet intact Coolling media prisent  1 2	Ves    Sould be belief	Ne 'C		Coll present Seri large Excitor medit present	No 10 8 8 9 Tanderpure feeding by
Semigranda by Cagnatary, vinc.	ASEA DE VIEW TANKS	Received by: (Signate		THE STATE OF THE S	Time Special distractions  HI ARM COLOR OF THE COLOR
1 shaynes 20th	manufacture of the second seco				4 31 ON JEE
2	2 VIY	WSHTI PATS	e V.B.Pa	tel 2024 03 16 9	8 27 CA

Bureau Veritas Job #: C479565 Report Date: 2024/03/21 Bureau Veritas Sample: YQN539

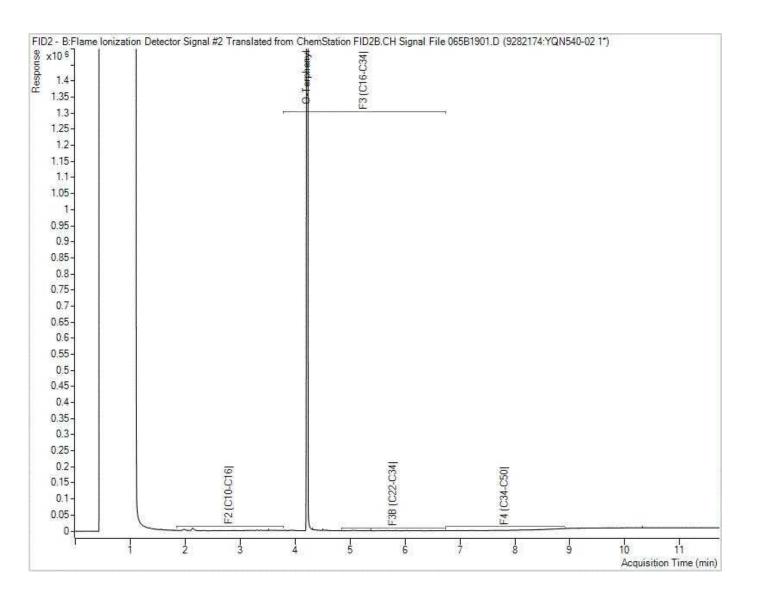
#### Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C479565 Report Date: 2024/03/21 Bureau Veritas Sample: YQN540

#### 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.



Your Project #: OTT-23002538-B0 Your C.O.C. #: C#924624-03-01

#### **Attention: Chris Kimmerly**

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/04/02

Report #: R8090277 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C489646 Received: 2024/03/25, 16:46

Sample Matrix: Water # Samples Received: 2

	Date	Date	
Analyses	Quantity Extracted	Analyzed Laboratory Method	<b>Analytical Method</b>
1,3-Dichloropropene Sum (1)	2 N/A	2024/04/01	EPA 8260C m
Volatile Organic Compounds in Water (1)	2 N/A	2024/03/28 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, 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) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8



Your Project #: OTT-23002538-B0 Your C.O.C. #: C#924624-03-01

**Attention: Chris Kimmerly** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2024/04/02

Report #: R8090277 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C489646 Received: 2024/03/25, 16:46

**Encryption Key** 

Please direct all questions regarding this Certificate of Analysis to: Katherine Szozda, Project Manager Email: Katherine.Szozda@bureauveritas.com Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-B0

Sampler Initials: JE

# O.REG 153 VOCS BY HS (WATER)

Calculated Parameters   1,3-Dichloropropene (cis+trans)   ug/L   <0.50   0.50   <0.50   0.50   9297203	Bureau Veritas ID		YSR117		YSR118		
COC Number	Sampling Dato		2024/03/25		2024/03/25		
UNITS   BH/MW-12   RDL   BH/MW-1   RDL   QC Batch	Sampling Date		15:30		16:05		
Calculated Parameters   1,3-Dichloropropene (cis+trans)   ug/L   <0.50   0.50   <0.50   0.50   9297203	COC Number		C#924624-03-01		C#924624-03-01		
1,3-Dichloropropene (cis+trans)   ug/L   <0.50   0.50   <0.50   0.50   9297203		UNITS	BH/MW-12	RDL	BH/MW-1	RDL	QC Batch
Volatile Organics   Valence (2-Propanone)   Valence	Calculated Parameters						
Acetone (2-Propanone)         ug/L         30         10         <10         10         9300150           Benzene         ug/L         12         0.20         <0.20	1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	<0.50	0.50	9297203
Benzene	Volatile Organics						
Bromodichloromethane	Acetone (2-Propanone)	ug/L	30	10	<10	10	9300150
Bromoform	Benzene	ug/L	12	0.20	<0.20	0.20	9300150
Bromomethane	Bromodichloromethane	ug/L	<0.50	0.50	<0.50	0.50	9300150
Carbon Tetrachloride         ug/L         <0.19         <0.19         <0.19         300150           Chlorobenzene         ug/L         <0.20	Bromoform	ug/L	<1.0	1.0	<1.0	1.0	9300150
Chlorobenzene         ug/L         < 0.20         0.20         < 0.20         0.20         9300150           Chloroform         ug/L         < 0.20	Bromomethane	ug/L	<0.50	0.50	<0.50	0.50	9300150
Chloroform         ug/L         < 0.20         0.20         0.34         0.20         9300150           Dibromochloromethane         ug/L         < 0.50	Carbon Tetrachloride	ug/L	<0.19	0.19	<0.19	0.19	9300150
Dibromochloromethane         ug/L         <0.50         0.50         <0.50         9300150           1,2-Dichlorobenzene         ug/L         <0.40	Chlorobenzene	ug/L	<0.20	0.20	<0.20	0.20	9300150
1,2-Dichlorobenzene       ug/L       <0.40	Chloroform	ug/L	<0.20	0.20	0.34	0.20	9300150
1,3-Dichlorobenzene       ug/L       <0.40	Dibromochloromethane	ug/L	<0.50	0.50	<0.50	0.50	9300150
1,4-Dichlorobenzene       ug/L       <0.40	1,2-Dichlorobenzene	ug/L	<0.40	0.40	<0.40	0.40	9300150
Dichlorodifluoromethane (FREON 12) ug/L <1.0	1,3-Dichlorobenzene	ug/L	<0.40	0.40	<0.40	0.40	9300150
1,1-Dichloroethane       ug/L       <0.20       0.20       <0.20       0.20       9300150         1,2-Dichloroethane       ug/L       <0.49	1,4-Dichlorobenzene	ug/L	<0.40	0.40	<0.40	0.40	9300150
1,2-Dichloroethane       ug/L       <0.49	Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	<1.0	1.0	9300150
1,1-Dichloroethylene       ug/L       <0.20	1,1-Dichloroethane	ug/L	<0.20	0.20	<0.20	0.20	9300150
cis-1,2-Dichloroethylene         ug/L         <0.50         0.50         <0.50         9300150           trans-1,2-Dichloroethylene         ug/L         <0.50	1,2-Dichloroethane	ug/L	<0.49	0.49	<0.49	0.49	9300150
trans-1,2-Dichloroethylene	1,1-Dichloroethylene	ug/L	<0.20	0.20	<0.20	0.20	9300150
1,2-Dichloropropane       ug/L       <0.20	cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.50	0.50	9300150
cis-1,3-Dichloropropene         ug/L         <0.30         0.30         <0.30         9300150           trans-1,3-Dichloropropene         ug/L         <0.40	trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	<0.50	0.50	9300150
trans-1,3-Dichloropropene	1,2-Dichloropropane	ug/L	<0.20	0.20	<0.20	0.20	9300150
Ethylbenzene         ug/L         0.94         0.20         <0.20         0.20         9300150           Ethylene Dibromide         ug/L         <0.19	cis-1,3-Dichloropropene	ug/L	<0.30	0.30	<0.30	0.30	9300150
Ethylene Dibromide         ug/L         <0.19         0.19         <0.19         9300150           Hexane         ug/L         5.0         1.0         <1.0	trans-1,3-Dichloropropene	ug/L	<0.40	0.40	<0.40	0.40	9300150
Hexane         ug/L         5.0         1.0         <1.0         9300150           Methylene Chloride(Dichloromethane)         ug/L         <2.0	Ethylbenzene	ug/L	0.94	0.20	<0.20	0.20	9300150
Methylene Chloride(Dichloromethane)         ug/L         <2.0         2.0         <2.0         2.0         9300150           Methyl Ethyl Ketone (2-Butanone)         ug/L         6400         50         <10	Ethylene Dibromide	ug/L	<0.19	0.19	<0.19	0.19	9300150
Methyl Ethyl Ketone (2-Butanone)         ug/L         6400         50         <10         10         9300150           Methyl Isobutyl Ketone         ug/L         <5.0	Hexane	ug/L	5.0	1.0	<1.0	1.0	9300150
Methyl Isobutyl Ketone         ug/L         <5.0         5.0         <5.0         9300150           Methyl t-butyl ether (MTBE)         ug/L         <0.50	Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	<2.0	2.0	9300150
Methyl t-butyl ether (MTBE)         ug/L         <0.50         0.50         <0.50         9300150           Styrene         ug/L         <0.40	Methyl Ethyl Ketone (2-Butanone)	ug/L	6400	50	<10	10	9300150
Styrene         ug/L         <0.40         0.40         <0.40         9300150           1,1,1,2-Tetrachloroethane         ug/L         <0.50	Methyl Isobutyl Ketone	ug/L	<5.0	5.0	<5.0	5.0	9300150
1,1,1,2-Tetrachloroethane     ug/L     <0.50	Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	<0.50	0.50	9300150
1,1,2,2-Tetrachloroethane         ug/L         <0.40         0.40         <0.40         9300150           Tetrachloroethylene         ug/L         5.3         0.20         <0.20	Styrene	ug/L	<0.40	0.40	<0.40	0.40	9300150
Tetrachloroethylene         ug/L         5.3         0.20         <0.20         0.20         9300150           Toluene         ug/L         19         0.20         <0.20	1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	<0.50	0.50	9300150
Toluene         ug/L         19         0.20         <0.20         0.20         9300150           RDL = Reportable Detection Limit	1,1,2,2-Tetrachloroethane	ug/L	<0.40	0.40	<0.40	0.40	9300150
RDL = Reportable Detection Limit	Tetrachloroethylene	ug/L	5.3	0.20	<0.20	0.20	9300150
	Toluene	ug/L	19	0.20	<0.20	0.20	9300150
QC Batch = Quality Control Batch	RDL = Reportable Detection Limit						
	QC Batch = Quality Control Batch						



Client Project #: OTT-23002538-B0

Sampler Initials: JE

# O.REG 153 VOCS BY HS (WATER)

Bureau Veritas ID		YSR117		YSR118		
Sampling Date		2024/03/25		2024/03/25		
		15:30		16:05		
COC Number		C#924624-03-01		C#924624-03-01		
	UNITS	BH/MW-12	RDL	BH/MW-1	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	0.20	<0.20	0.20	9300150
1,1,2-Trichloroethane	ug/L	<0.40	0.40	<0.40	0.40	9300150
Trichloroethylene	ug/L	0.48	0.20	<0.20	0.20	9300150
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	<0.50	0.50	9300150
Vinyl Chloride	ug/L	<0.20	0.20	<0.20	0.20	9300150
p+m-Xylene	ug/L	9.8	0.20	<0.20	0.20	9300150
o-Xylene	ug/L	3.3	0.20	<0.20	0.20	9300150
Total Xylenes	ug/L	13	0.20	<0.20	0.20	9300150
Surrogate Recovery (%)	•	•				
4-Bromofluorobenzene	%	97		99		9300150
D4-1,2-Dichloroethane	%	105		116		9300150
D8-Toluene	%	97		93		9300150
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



Client Project #: OTT-23002538-B0

Sampler Initials: JE

#### **TEST SUMMARY**

Bureau Veritas ID: YSR117 Collected: 2024/03/25

Sample ID: BH/MW-12 Shipped: Matrix: Water Received:

2024/03/25

**Test Description** Extracted **Date Analyzed** Instrumentation Batch Analyst 1,3-Dichloropropene Sum CALC 9297203 N/A 2024/04/01 **Automated Statchk** Volatile Organic Compounds in Water GC/MS 9300150 N/A 2024/03/28 Gabriella Morrone

**Bureau Veritas ID:** YSR118 Collected: 2024/03/25

Sample ID: BH/MW-1 Shipped:

Matrix: Water Received: 2024/03/25

**Test Description Date Analyzed** Instrumentation Batch **Extracted** Analyst 2024/04/01 Automated Statchk 1,3-Dichloropropene Sum CALC 9297203 N/A 9300150 2024/03/28 Volatile Organic Compounds in Water GC/MS N/A Gabriella Morrone



exp Services Inc Client Project #: OTT-23002538-B0 Sampler Initials: JE

#### **GENERAL COMMENTS**

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

Package 1	8.7°C
-----------	-------

Sample YSR117 [BH/MW-12]: VOC Analysis: Due to high concentrations of target analytes, sample required dilution. Detection limits were adjusted accordingly. In order to meet required regulatory criteria or to achieve lower reporting limits, results for selected compounds (obtained by a separate analysis using an appropriate low dilution) are included in the report.

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: JE

			Matrix	Spike	SPIKED	BLANK	Method	Blank	RP	D
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9300150	4-Bromofluorobenzene	2024/03/28	99	70 - 130	100	70 - 130	102	%		
9300150	D4-1,2-Dichloroethane	2024/03/28	108	70 - 130	104	70 - 130	110	%		
9300150	D8-Toluene	2024/03/28	104	70 - 130	104	70 - 130	94	%		
9300150	1,1,1,2-Tetrachloroethane	2024/03/28	98	70 - 130	102	70 - 130	<0.50	ug/L		
9300150	1,1,1-Trichloroethane	2024/03/28	94	70 - 130	98	70 - 130	<0.20	ug/L		
9300150	1,1,2,2-Tetrachloroethane	2024/03/28	99	70 - 130	101	70 - 130	<0.40	ug/L	NC	30
9300150	1,1,2-Trichloroethane	2024/03/28	99	70 - 130	101	70 - 130	<0.40	ug/L		
9300150	1,1-Dichloroethane	2024/03/28	96	70 - 130	99	70 - 130	<0.20	ug/L		
9300150	1,1-Dichloroethylene	2024/03/28	89	70 - 130	93	70 - 130	<0.20	ug/L		
9300150	1,2-Dichlorobenzene	2024/03/28	89	70 - 130	93	70 - 130	<0.40	ug/L	NC	30
9300150	1,2-Dichloroethane	2024/03/28	96	70 - 130	98	70 - 130	<0.49	ug/L		
9300150	1,2-Dichloropropane	2024/03/28	95	70 - 130	98	70 - 130	<0.20	ug/L		
9300150	1,3-Dichlorobenzene	2024/03/28	91	70 - 130	95	70 - 130	<0.40	ug/L		
9300150	1,4-Dichlorobenzene	2024/03/28	99	70 - 130	104	70 - 130	<0.40	ug/L	NC	30
9300150	Acetone (2-Propanone)	2024/03/28	114	60 - 140	115	60 - 140	<10	ug/L		
9300150	Benzene	2024/03/28	87	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9300150	Bromodichloromethane	2024/03/28	102	70 - 130	105	70 - 130	<0.50	ug/L		
9300150	Bromoform	2024/03/28	90	70 - 130	92	70 - 130	<1.0	ug/L		
9300150	Bromomethane	2024/03/28	79	60 - 140	79	60 - 140	<0.50	ug/L		
9300150	Carbon Tetrachloride	2024/03/28	92	70 - 130	96	70 - 130	<0.19	ug/L		
9300150	Chlorobenzene	2024/03/28	99	70 - 130	103	70 - 130	<0.20	ug/L		
9300150	Chloroform	2024/03/28	99	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
9300150	cis-1,2-Dichloroethylene	2024/03/28	95	70 - 130	97	70 - 130	<0.50	ug/L		
9300150	cis-1,3-Dichloropropene	2024/03/28	94	70 - 130	95	70 - 130	<0.30	ug/L		
9300150	Dibromochloromethane	2024/03/28	96	70 - 130	98	70 - 130	<0.50	ug/L		
9300150	Dichlorodifluoromethane (FREON 12)	2024/03/28	60	60 - 140	63	60 - 140	<1.0	ug/L		
9300150	Ethylbenzene	2024/03/28	87	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9300150	Ethylene Dibromide	2024/03/28	99	70 - 130	100	70 - 130	<0.19	ug/L		
9300150	Hexane	2024/03/28	84	70 - 130	89	70 - 130	<1.0	ug/L		
9300150	Methyl Ethyl Ketone (2-Butanone)	2024/03/28	107	60 - 140	108	60 - 140	<10	ug/L		
9300150	Methyl Isobutyl Ketone	2024/03/28	108	70 - 130	111	70 - 130	<5.0	ug/L		
9300150	Methyl t-butyl ether (MTBE)	2024/03/28	97	70 - 130	102	70 - 130	<0.50	ug/L		



Bureau Veritas Job #: C489646 Report Date: 2024/04/02

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

exp Services Inc

Client Project #: OTT-23002538-B0

Sampler Initials: JE

			Matrix	Spike	SPIKED	BLANK	Method E	Blank	RPI	כ
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9300150	Methylene Chloride(Dichloromethane)	2024/03/28	92	70 - 130	94	70 - 130	<2.0	ug/L	NC	30
9300150	o-Xylene	2024/03/28	78	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
9300150	p+m-Xylene	2024/03/28	95	70 - 130	101	70 - 130	<0.20	ug/L	NC	30
9300150	Styrene	2024/03/28	100	70 - 130	108	70 - 130	<0.40	ug/L		
9300150	Tetrachloroethylene	2024/03/28	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9300150	Toluene	2024/03/28	90	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9300150	Total Xylenes	2024/03/28					<0.20	ug/L	NC	30
9300150	trans-1,2-Dichloroethylene	2024/03/28	90	70 - 130	94	70 - 130	<0.50	ug/L		
9300150	trans-1,3-Dichloropropene	2024/03/28	103	70 - 130	101	70 - 130	<0.40	ug/L		
9300150	Trichloroethylene	2024/03/28	92	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9300150	Trichlorofluoromethane (FREON 11)	2024/03/28	91	70 - 130	95	70 - 130	<0.50	ug/L		
9300150	Vinyl Chloride	2024/03/28	79	70 - 130	82	70 - 130	<0.20	ug/L	·	

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).



exp Services Inc Client Project #: OTT-23002538-B0

Sampler Initials: JE

#### **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.

#### Maxxam Analytics Presence of Visible Particulate/Sediment CAM FCD-01013/5 Page 1 of 1 When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below **Bottle Types** Inorganics Hydrocarbons Organics Volatiles Other Pest/ Pest/ SVOC/ SVOC/ Herb Herb ABN ABN 1 of 2 2 of 2 1 of 2 2 of 2 Metals Organic Organic PCB PCB PAH PAH Dioxin F1 F1 F1 F1 F2-F4 F2-F4 voc voc voc voc Sample ID All CrVI CN Hg F4G (Diss.) 1 of 2 2 of 2 1 of 2 2 of 2 1 of 2 2 of 2 /Furan Vial 1 Vial 2 Vial 3 Vial 4 1 of 2 2 of 2 Vial 1 Vial 2 Vial 3 Vial 4 1 2 P 3 4 5 6 7 8 9 10 Comments: Legend: NIY VIYUSHTI PATEL P Suspended Particulate Recorded By: (signature/print) Trace Settled Sediment (just covers bottom of container or less) Sediment greater than (>) Trace, but less than (<) 1 cm

		Bureau Veritas 6740 Campobello Road, M	Mississauga, Onta	ario Canada L5N 2	L8 Tel:(905) 817-	5700 Toll-free:80	0-563-6266 Fax	:(905) 817-	5777 www.l	ovna.com			n Ottawa		N OF CUST	ODY RECORD	7.7	Page of I
BUREAU VERITAS											ue	The state of the s				79		
	#47400 0	INVOICE TO:				REP	ORT TO:						CT INFORMATION:				ory Use O	
Company Name:	#17498 exp Se Accounts Payab			Compan	A-Ameliana	TOTAL CI			Quotation #:	anavi,	7	20 00		Bureau Veritas Job #:		Bottle Order #:		
Attention: Address:	100-2650 Quee			Attention		Dispenso C	icis Kin	nmerl	4-		P.O. #:		230025	38-B0	-			
Address.	Ottawa ON K2B			Address							Project:		where his above the		-	COC #:		924624 Project Manager:
Tel:	(613) 688-1899	Fax: (610	3) 225-7337	Tel:			Fax	-		0	Project Name Site #:				1 111111111		10110	
Email:	AP@exp.com; k	Karen.Burke@exp.com		Email:			on chris	s-Kim	mertyl	(a)	Sampled By:	Je	remy Ecke	rt		C#924624-03-01	1 111 11 111	Katherine Szozda
MOE REC	SULATED DRINKIN SUBMITTED ON	IG WATER OR WATER THE BUREAU VERITAS	INTENDED F DRINKING V	OR HUMAN C VATER CHAIN	ONSUMPTION OF CUSTODY	MUST BE			exp	COM	ALYSIS REQL	ESTED (PLEASE	BE SPECIFIC)		N. B. B. C. S. F.	Turnaround Ti Please provide adva		
Regulation	on 153 (2011)	Ot	her Regulations	s	Special I	nstructions	<u>5</u>									tandard) TAT:	F0	N
	Res/Park Mediu		Sanitary Sewer	CO-000000000			Se C	4-1-								f if Rush TAT is not specifi = 5-7 Working days for me		X
	Ind/Comm Coars Agri/Other For R	SC MISA MU	Storm Sewer By unicipality	ylaw			d (pleas	BTEX/F1							Please note: S	100 100 100 100 100 100 100 100 100 100	sts such as BOI	D and Dioxins/Furans are > 5
L Table		PWQO Dther	Reg 406 Table				  Fisid Filtered (please circle):   Metals / Hg / Cr VI	153 PHCs.	ō	20				e	Date Required			Required:
	Include Criter	ia on Certificate of Analy	rsis (Y/N)?				pjei-	Reg 15	3/Diesei	13		1				ation Number:	(call	lab for #)
Sample	e Barcode Label	Sample (Location) Iden		Date Sampled	Time Sampled	Matrix		0 8	8						# of Bottles	Commence and Advance of Contract Contract of Annal States	Commen	ts
1	and a realist process where the property of the process of the pro	BH/MW- BH/MW-	12	24/03/25	1530	GW				X					2			
2		BH/MW-	1 7	14/03/25	1605	GW	2			X					2			The second secon
3		,															NONT-	2024-03-2012
5			T to design oversigned and													回约至	Ğ	
6																		
7																		
8																		
9																		2000
10																		
* R	ELINQUISHED BY: (Si	1 11 11	Date: (YY/MI			1 19	BY: (Signature	Print)	1	Date: (YY/M	MM/DD)	Time	# jars used and not submitted	100	Laborate	ory Use Only		
-/-		emy Eclert	24/03		51	- Sue	AR	SW/1		24/0		16:46		Time Sensitive		re (°C) on Recei	Present Intact	Yes No
TIT IS THE RESPON	NT AND ACCEPTANCE	RITING, WORK SUBMITTED ON OF OUR TERMS WHICH ARE A INQUISHER TO ENSURE THE A	ACCURACY OF 1	VIEWING AT WWW THE CHAIN OF CU	I.BVNA.COM/ENVIR STODY RECORD. I	NONMENTAL-LAB	CHAIN OF CUST	SOURCES/ ODY MAY F	COC-TERM RESULT IN	S-AND-COI ANALYTIC	NDITIONS. AL TAT DELAY	S.		S MUST BE KEPT C UNTIL DELIV	OOL ( < 10°.C ) FI ERY TO BUREAU	ROM TIME OF SAMPLIN I VERLĪJAS	G	reau Veritas Yellow: Clie
* SAMPLE CONTAI	INER, PRESERVATION,	HOLD TIME AND PACKAGE I	NFORMATION CA	AN BE VIEWED AT	WWW.BVNA.COM	/ENVIRONMENTA	L-LABORATOR			N-CUSTOD		cs.					Custo	ody Seal Present I ing Media Yes N
											5		7	-/1	17			$\vee$



Your P.O. #: 1824-1826 BANK ST Your Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your C.O.C. #: n/a

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

> Report Date: 2023/12/06 Report #: R7943814

Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3AR834 Received: 2023/11/30, 11:39

Sample Matrix: Water # Samples Received: 6

		Date	Date		
Analyses	Quantity	Extracted	Analyzed	<b>Laboratory Method</b>	Analytical Method
Methylnaphthalene Sum (1)	6	N/A	2023/12/06	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	6	N/A	2023/12/06		EPA 8260C m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	6	2023/12/05	2023/12/06	CAM SOP-00316	CCME PHC-CWS m
Dissolved Metals by ICPMS (1)	6	N/A	2023/12/05	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	6	2023/12/05	2023/12/06	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	6	N/A	2023/12/06	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, MELCCFP, 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.

- \* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
- (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.



Your P.O. #: 1824-1826 BANK ST Your Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your C.O.C. #: n/a

**Attention: Leah Wells** 

exp Services Inc Ottawa Branch 100-2650 Queensview Drive Ottawa, ON CANADA K2B 8H6

Report Date: 2023/12/06

Report #: R7943814 Version: 1 - Final

#### **CERTIFICATE OF ANALYSIS**

BUREAU VERITAS JOB #: C3AR834 Received: 2023/11/30, 11:39

**Encryption Key** 



Bureau Veritas 06 Dec 2023 18:33:50

Please direct all questions regarding this Certificate of Analysis to:

Katherine Szozda, Project Manager

Email: Katherine. Szozda@bureauveritas.com

Phone# (613)274-0573 Ext:7063633

\_\_\_\_\_

This report has been generated and distributed using a secure automated process.

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.



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

### O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		XTP032	XTP032	XTP033	XTP034	XTP035		XTP036		
Sampling Date		2023/11/30 10:20	2023/11/30 10:20	2023/11/29 13:30	2023/11/29 13:30	2023/11/29 14:15		2023/11/29		
COC Number		n/a	n/a	n/a	n/a	n/a		n/a		
	UNITS	BH-1	BH-1 Lab-Dup	BH-10	DUP.	BH-9	RDL	TRIP BLANK	RDL	QC Batch
Metals										
Dissolved Antimony (Sb)	ug/L	1.4	1.3	0.56	<0.50	0.55	0.50	<0.50	0.50	9091340
Dissolved Arsenic (As)	ug/L	1.1	1.1	<1.0	<1.0	<1.0	1.0	<1.0	1.0	9091340
Dissolved Barium (Ba)	ug/L	1800	1800	150	140	89	2.0	<2.0	2.0	9091340
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	<0.40	<0.40	0.40	<0.40	0.40	9091340
Dissolved Boron (B)	ug/L	520	520	37	36	50	10	<10	10	9091340
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	0.28	0.26	0.12	0.090	<0.090	0.090	9091340
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	<5.0	5.0	9091340
Dissolved Cobalt (Co)	ug/L	2.5	2.5	5.9	5.5	2.4	0.50	<0.50	0.50	9091340
Dissolved Copper (Cu)	ug/L	2.5	2.4	4.5	3.6	2.3	0.90	<0.90	0.90	9091340
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	<0.50	0.50	9091340
Dissolved Molybdenum (Mo)	ug/L	11	11	9.7	9.0	1.6	0.50	<0.50	0.50	9091340
Dissolved Nickel (Ni)	ug/L	6.3	6.2	10	9.8	6.2	1.0	<1.0	1.0	9091340
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	2.0	9091340
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	0.093	<0.090	<0.090	0.090	0.098	0.090	9091340
Dissolved Sodium (Na)	ug/L	820000	860000	890000	880000	1100000	500	<100	100	9091340
Dissolved Thallium (TI)	ug/L	0.059	0.061	0.078	0.070	<0.050	0.050	<0.050	0.050	9091340
Dissolved Uranium (U)	ug/L	2.9	2.8	3.4	3.3	1.8	0.10	<0.10	0.10	9091340
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	0.86	0.58	0.53	0.50	<0.50	0.50	9091340
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	<5.0	5.0	9091340

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

### O.REG 153 DISSOLVED ICPMS METALS (WATER)

Bureau Veritas ID		XTP037		
Sampling Date		2023/11/30 10:30		
COC Number		n/a		
	UNITS	FIELD BLANK	RDL	QC Batch
Metals				
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	9091340
Dissolved Arsenic (As)	ug/L	<1.0	1.0	9091340
Dissolved Barium (Ba)	ug/L	<2.0	2.0	9091340
Dissolved Beryllium (Be)	ug/L	<0.40	0.40	9091340
Dissolved Boron (B)	ug/L	<10	10	9091340
Dissolved Cadmium (Cd)	ug/L	<0.090	0.090	9091340
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	9091340
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	9091340
Dissolved Copper (Cu)	ug/L	<0.90	0.90	9091340
Dissolved Lead (Pb)	ug/L	<0.50	0.50	9091340
Dissolved Molybdenum (Mo)	ug/L	<0.50	0.50	9091340
Dissolved Nickel (Ni)	ug/L	<1.0	1.0	9091340
Dissolved Selenium (Se)	ug/L	<2.0	2.0	9091340
Dissolved Silver (Ag)	ug/L	<0.090	0.090	9091340
Dissolved Sodium (Na)	ug/L	<100	100	9091340
Dissolved Thallium (TI)	ug/L	<0.050	0.050	9091340
Dissolved Uranium (U)	ug/L	<0.10	0.10	9091340
Dissolved Vanadium (V)	ug/L	<0.50	0.50	9091340
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	9091340
RDL = Reportable Detection Li QC Batch = Quality Control Bat				



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

### O.REG 153 PAHS (WATER)

	ı								
Bureau Veritas ID		XTP032	XTP033	XTP034	XTP035	XTP036	XTP037		
Sampling Date		2023/11/30 10:20	2023/11/29 13:30	2023/11/29 13:30	2023/11/29 14:15	2023/11/29	2023/11/30 10:30		
COC Number		n/a	n/a	n/a	n/a	n/a	n/a		
	UNITS	BH-1	BH-10	DUP.	BH-9	TRIP BLANK	FIELD BLANK	RDL	QC Batc
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	<0.071	<0.071	<0.071	0.071	908916
Polyaromatic Hydrocarbons									
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	909155
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Naphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Phenanthrene	ug/L	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	909155
Pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	909155
Surrogate Recovery (%)									
D10-Anthracene	%	111	109	105	107	106	109		909155
D14-Terphenyl (FS)	%	94	102	99	103	101	103		909155
D8-Acenaphthylene	%	95	92	90	92	90	94		909155

QC Batch = Quality Control Batch



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

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

Bureau Veritas ID		XTP032			XTP032			XTP033	XTP034		
		2023/11/30			2023/11/30			2023/11/29	2023/11/29		
Sampling Date		10:20			10:20			13:30	13:30		
COC Number		n/a			n/a			n/a	n/a		
	UNITS	BH-1	RDL	QC Batch	BH-1 Lab-Dup	RDL	QC Batch	BH-10	DUP.	RDL	QC Batch
Calculated Parameters											
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	9088503				<0.50	<0.50	0.50	9088503
Volatile Organics	•	•	•		•	•			•	•	
Acetone (2-Propanone)	ug/L	<10	10	9090847	<10	10	9090847	<10	<10	10	9090847
Benzene	ug/L	<0.17	0.17	9090847	<0.17	0.17	9090847	0.54	0.51	0.17	9090847
Bromodichloromethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Bromoform	ug/L	<1.0	1.0	9090847	<1.0	1.0	9090847	<1.0	<1.0	1.0	9090847
Bromomethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Carbon Tetrachloride	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Chlorobenzene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Chloroform	ug/L	1.7	0.20	9090847	1.6	0.20	9090847	<0.20	<0.20	0.20	9090847
Dibromochloromethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,2-Dichlorobenzene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,3-Dichlorobenzene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,4-Dichlorobenzene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	9090847	<1.0	1.0	9090847	<1.0	<1.0	1.0	9090847
1,1-Dichloroethane	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
1,2-Dichloroethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,1-Dichloroethylene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,2-Dichloropropane	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	9090847	<0.30	0.30	9090847	<0.30	<0.30	0.30	9090847
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	9090847	<0.40	0.40	9090847	<0.40	<0.40	0.40	9090847
Ethylbenzene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Ethylene Dibromide	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Hexane	ug/L	<1.0	1.0	9090847	<1.0	1.0	9090847	<1.0	<1.0	1.0	9090847
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	9090847	<2.0	2.0	9090847	<2.0	<2.0	2.0	9090847
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	9090847	<10	10	9090847	<10	<10	10	9090847
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	9090847	<5.0	5.0	9090847	<5.0	<5.0	5.0	9090847
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Styrene	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

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

Bureau Veritas ID		XTP032			XTP032			XTP033	XTP034		
Sampling Data		2023/11/30			2023/11/30			2023/11/29	2023/11/29		
Sampling Date		10:20			10:20			13:30	13:30		
COC Number		n/a			n/a			n/a	n/a		
	UNITS	BH-1	RDL	QC Batch	BH-1 Lab-Dup	RDL	QC Batch	BH-10	DUP.	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Tetrachloroethylene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Toluene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
1,1,1-Trichloroethane	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
1,1,2-Trichloroethane	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Trichloroethylene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	9090847	<0.50	0.50	9090847	<0.50	<0.50	0.50	9090847
Vinyl Chloride	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
p+m-Xylene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
o-Xylene	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
Total Xylenes	ug/L	<0.20	0.20	9090847	<0.20	0.20	9090847	<0.20	<0.20	0.20	9090847
F1 (C6-C10)	ug/L	<25	25	9090847	<25	25	9090847	<25	<25	25	9090847
F1 (C6-C10) - BTEX	ug/L	<25	25	9090847	<25	25	9090847	<25	<25	25	9090847
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	9091562				<100	<100	100	9091562
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	9091562				<200	<200	200	9091562
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	9091562				<200	<200	200	9091562
Reached Baseline at C50	ug/L	Yes		9091562				Yes	Yes		9091562
Surrogate Recovery (%)	•			•	•			-			
o-Terphenyl	%	91		9091562				95	95		9091562
4-Bromofluorobenzene	%	97		9090847	97		9090847	96	96		9090847
D4-1,2-Dichloroethane	%	98		9090847	97		9090847	95	94		9090847
D8-Toluene	%	94		9090847	95		9090847	95	95		9090847
PDI - Papartable Detection Limit											

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

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

Bureau Veritas ID		XTP035	XTP036	XTP037		
Sampling Date		2023/11/29 14:15	2023/11/29	2023/11/30 10:30		
COC Number		n/a	n/a	n/a		
	UNITS	BH-9	TRIP BLANK	FIELD BLANK	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	0.50	9088503
Volatile Organics						l.
Acetone (2-Propanone)	ug/L	<10	<10	<10	10	9090847
Benzene	ug/L	<0.17	<0.17	<0.17	0.17	9090847
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Bromoform	ug/L	<1.0	<1.0	<1.0	1.0	9090847
Bromomethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Chloroform	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	1.0	9090847
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	9090847
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	0.20	9090847
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	0.30	9090847
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	0.40	9090847
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Hexane	ug/L	<1.0	<1.0	<1.0	1.0	9090847
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	2.0	9090847
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	10	9090847
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	5.0	9090847
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Styrene	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					_	



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

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

Bureau Veritas ID		XTP035	XTP036	XTP037		
Sampling Date		2023/11/29 14:15	2023/11/29	2023/11/30 10:30		
COC Number		n/a	n/a	n/a		
	UNITS	BH-9	TRIP BLANK	FIELD BLANK	RDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Toluene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	0.20	9090847
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	0.50	9090847
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	0.20	9090847
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
o-Xylene	ug/L	<0.20	<0.20	<0.20	0.20	9090847
Total Xylenes	ug/L	<0.20	<0.20	<0.20	0.20	9090847
F1 (C6-C10)	ug/L	<25	<25	<25	25	9090847
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	9090847
F2-F4 Hydrocarbons	•	•				•
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	9091562
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	9091562
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	9091562
Reached Baseline at C50	ug/L	Yes	Yes	Yes		9091562
Surrogate Recovery (%)	•	•				
o-Terphenyl	%	91	91	95		9091562
4-Bromofluorobenzene	%	96	96	96		9090847
D4-1,2-Dichloroethane	%	93	93	93		9090847
D8-Toluene	%	96	95	96		9090847
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					· ———	



Report Date: 2023/12/06

exp Services Inc

Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

#### **TEST SUMMARY**

Bureau Veritas ID: XTP032

Collected:

2023/11/30

Sample ID: BH-1 Matrix: Water Shipped:

**Received:** 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

Bureau Veritas ID: XTP032 Dup

Collected:

2023/11/30

Sample ID: BH-1 Matrix: Water Shipped:

**Received:** 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

Bureau Veritas ID: XTP033

**Collected:** 2023/11/29

Sample ID: BH-10 Matrix: Water Shipped:

2023/11/30 Received:

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

Bureau Veritas ID: XTP034

Collected:

2023/11/29

Sample ID: DUP. Matrix: Water

Shipped: Received:

2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

Bureau Veritas ID: XTP035

Collected: Shipped:

2023/11/29

Sample ID: BH-9 Matrix: Water

**Received:** 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

#### **TEST SUMMARY**

Bureau Veritas ID: XTP035

**Collected:** 2023/11/29 Shipped:

Sample ID: BH-9 Matrix: Water

**Received:** 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

**Bureau Veritas ID:** XTP036

**Collected:** 2023/11/29

Sample ID: TRIP BLANK Matrix: Water

Shipped:

Received: 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha

Bureau Veritas ID: XTP037 Sample ID: FIELD BLANK

Collected:

2023/11/30

Matrix: Water

Shipped:

**Received:** 2023/11/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9089164	N/A	2023/12/06	Automated Statchk
1,3-Dichloropropene Sum	CALC	9088503	N/A	2023/12/06	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	9091562	2023/12/05	2023/12/06	Dennis Ngondu
Dissolved Metals by ICPMS	ICP/MS	9091340	N/A	2023/12/05	Prempal Bhatti
PAH Compounds in Water by GC/MS (SIM)	GC/MS	9091558	2023/12/05	2023/12/06	Jonghan Yoon
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9090847	N/A	2023/12/06	Cheng-Yu Sha



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

### **GENERAL COMMENTS**

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

Package 1 10.0°C

Results relate only to the items tested.



### **QUALITY ASSURANCE REPORT**

exp Services Inc

Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

			Matrix Spike		SPIKED	BLANK	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9090847	4-Bromofluorobenzene	2023/12/06	97	70 - 130	97	70 - 130	96	%		
9090847	D4-1,2-Dichloroethane	2023/12/06	96	70 - 130	91	70 - 130	92	%		
9090847	D8-Toluene	2023/12/06	100	70 - 130	102	70 - 130	95	%		
9091558	D10-Anthracene	2023/12/06	106	50 - 130	106	50 - 130	111	%		
9091558	D14-Terphenyl (FS)	2023/12/06	105	50 - 130	109	50 - 130	110	%		
9091558	D8-Acenaphthylene	2023/12/06	95	50 - 130	95	50 - 130	95	%		
9091562	o-Terphenyl	2023/12/06	95	60 - 130	89	60 - 130	91	%		
9090847	1,1,1,2-Tetrachloroethane	2023/12/06	98	70 - 130	98	70 - 130	< 0.50	ug/L	NC	30
9090847	1,1,1-Trichloroethane	2023/12/06	92	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
9090847	1,1,2,2-Tetrachloroethane	2023/12/06	102	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
9090847	1,1,2-Trichloroethane	2023/12/06	89	70 - 130	87	70 - 130	<0.50	ug/L	NC	30
9090847	1,1-Dichloroethane	2023/12/06	98	70 - 130	98	70 - 130	<0.20	ug/L	NC	30
9090847	1,1-Dichloroethylene	2023/12/06	91	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
9090847	1,2-Dichlorobenzene	2023/12/06	94	70 - 130	95	70 - 130	< 0.50	ug/L	NC	30
9090847	1,2-Dichloroethane	2023/12/06	88	70 - 130	85	70 - 130	<0.50	ug/L	NC	30
9090847	1,2-Dichloropropane	2023/12/06	100	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9090847	1,3-Dichlorobenzene	2023/12/06	97	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9090847	1,4-Dichlorobenzene	2023/12/06	105	70 - 130	108	70 - 130	<0.50	ug/L	NC	30
9090847	Acetone (2-Propanone)	2023/12/06	98	60 - 140	92	60 - 140	<10	ug/L	NC	30
9090847	Benzene	2023/12/06	93	70 - 130	93	70 - 130	<0.17	ug/L	NC	30
9090847	Bromodichloromethane	2023/12/06	101	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
9090847	Bromoform	2023/12/06	90	70 - 130	87	70 - 130	<1.0	ug/L	NC	30
9090847	Bromomethane	2023/12/06	97	60 - 140	96	60 - 140	<0.50	ug/L	NC	30
9090847	Carbon Tetrachloride	2023/12/06	88	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
9090847	Chlorobenzene	2023/12/06	98	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9090847	Chloroform	2023/12/06	99	70 - 130	98	70 - 130	<0.20	ug/L	3.1	30
9090847	cis-1,2-Dichloroethylene	2023/12/06	100	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9090847	cis-1,3-Dichloropropene	2023/12/06	99	70 - 130	97	70 - 130	<0.30	ug/L	NC	30
9090847	Dibromochloromethane	2023/12/06	96	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
9090847	Dichlorodifluoromethane (FREON 12)	2023/12/06	91	60 - 140	94	60 - 140	<1.0	ug/L	NC	30
9090847	Ethylbenzene	2023/12/06	86	70 - 130	89	70 - 130	<0.20	ug/L	NC	30



## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9090847	Ethylene Dibromide	2023/12/06	100	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9090847	F1 (C6-C10) - BTEX	2023/12/06					<25	ug/L	NC	30
9090847	F1 (C6-C10)	2023/12/06	97	60 - 140	96	60 - 140	<25	ug/L	NC	30
9090847	Hexane	2023/12/06	91	70 - 130	94	70 - 130	<1.0	ug/L	NC	30
9090847	Methyl Ethyl Ketone (2-Butanone)	2023/12/06	101	60 - 140	95	60 - 140	<10	ug/L	NC	30
9090847	Methyl Isobutyl Ketone	2023/12/06	100	70 - 130	96	70 - 130	<5.0	ug/L	NC	30
9090847	Methyl t-butyl ether (MTBE)	2023/12/06	100	70 - 130	99	70 - 130	<0.50	ug/L	NC	30
9090847	Methylene Chloride(Dichloromethane)	2023/12/06	99	70 - 130	96	70 - 130	<2.0	ug/L	NC	30
9090847	o-Xylene	2023/12/06	79	70 - 130	82	70 - 130	<0.20	ug/L	NC	30
9090847	p+m-Xylene	2023/12/06	87	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
9090847	Styrene	2023/12/06	102	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
9090847	Tetrachloroethylene	2023/12/06	92	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
9090847	Toluene	2023/12/06	86	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
9090847	Total Xylenes	2023/12/06					<0.20	ug/L	NC	30
9090847	trans-1,2-Dichloroethylene	2023/12/06	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
9090847	trans-1,3-Dichloropropene	2023/12/06	100	70 - 130	98	70 - 130	<0.40	ug/L	NC	30
9090847	Trichloroethylene	2023/12/06	98	70 - 130	99	70 - 130	<0.20	ug/L	NC	30
9090847	Trichlorofluoromethane (FREON 11)	2023/12/06	89	70 - 130	91	70 - 130	<0.50	ug/L	NC	30
9090847	Vinyl Chloride	2023/12/06	94	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
9091340	Dissolved Antimony (Sb)	2023/12/05	112	80 - 120	102	80 - 120	<0.50	ug/L	5.3	20
9091340	Dissolved Arsenic (As)	2023/12/05	106	80 - 120	101	80 - 120	<1.0	ug/L	0.37	20
9091340	Dissolved Barium (Ba)	2023/12/05	NC	80 - 120	103	80 - 120	<2.0	ug/L	1.1	20
9091340	Dissolved Beryllium (Be)	2023/12/05	101	80 - 120	98	80 - 120	<0.40	ug/L	NC	20
9091340	Dissolved Boron (B)	2023/12/05	NC	80 - 120	97	80 - 120	<10	ug/L	0.10	20
9091340	Dissolved Cadmium (Cd)	2023/12/05	103	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
9091340	Dissolved Chromium (Cr)	2023/12/05	107	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
9091340	Dissolved Cobalt (Co)	2023/12/05	102	80 - 120	101	80 - 120	<0.50	ug/L	2.1	20
9091340	Dissolved Copper (Cu)	2023/12/05	107	80 - 120	103	80 - 120	<0.90	ug/L	3.9	20
9091340	Dissolved Lead (Pb)	2023/12/05	98	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
9091340	Dissolved Molybdenum (Mo)	2023/12/05	114	80 - 120	101	80 - 120	<0.50	ug/L	0.67	20
9091340	Dissolved Nickel (Ni)	2023/12/05	97	80 - 120	98	80 - 120	<1.0	ug/L	1.7	20



## QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

			Matrix Spike		SPIKED	BLANK	Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9091340	Dissolved Selenium (Se)	2023/12/05	101	80 - 120	99	80 - 120	<2.0	ug/L	NC	20
9091340	Dissolved Silver (Ag)	2023/12/05	85	80 - 120	99	80 - 120	<0.090	ug/L	NC	20
9091340	Dissolved Sodium (Na)	2023/12/05	NC	80 - 120	105	80 - 120	<100	ug/L	3.8	20
9091340	Dissolved Thallium (TI)	2023/12/05	98	80 - 120	100	80 - 120	<0.050	ug/L	3.3	20
9091340	Dissolved Uranium (U)	2023/12/05	104	80 - 120	97	80 - 120	<0.10	ug/L	2.2	20
9091340	Dissolved Vanadium (V)	2023/12/05	111	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
9091340	Dissolved Zinc (Zn)	2023/12/05	98	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
9091558	1-Methylnaphthalene	2023/12/06	116	50 - 130	120	50 - 130	<0.050	ug/L		
9091558	2-Methylnaphthalene	2023/12/06	105	50 - 130	109	50 - 130	<0.050	ug/L		
9091558	Acenaphthene	2023/12/06	109	50 - 130	111	50 - 130	<0.050	ug/L		
9091558	Acenaphthylene	2023/12/06	106	50 - 130	108	50 - 130	<0.050	ug/L		
9091558	Anthracene	2023/12/06	107	50 - 130	112	50 - 130	<0.050	ug/L		
9091558	Benzo(a)anthracene	2023/12/06	108	50 - 130	114	50 - 130	<0.050	ug/L		
9091558	Benzo(a)pyrene	2023/12/06	103	50 - 130	108	50 - 130	< 0.0090	ug/L		
9091558	Benzo(b/j)fluoranthene	2023/12/06	110	50 - 130	115	50 - 130	< 0.050	ug/L		
9091558	Benzo(g,h,i)perylene	2023/12/06	114	50 - 130	118	50 - 130	<0.050	ug/L		
9091558	Benzo(k)fluoranthene	2023/12/06	106	50 - 130	112	50 - 130	<0.050	ug/L		
9091558	Chrysene	2023/12/06	105	50 - 130	111	50 - 130	<0.050	ug/L		
9091558	Dibenzo(a,h)anthracene	2023/12/06	101	50 - 130	109	50 - 130	<0.050	ug/L		
9091558	Fluoranthene	2023/12/06	118	50 - 130	123	50 - 130	<0.050	ug/L		
9091558	Fluorene	2023/12/06	108	50 - 130	111	50 - 130	< 0.050	ug/L		
9091558	Indeno(1,2,3-cd)pyrene	2023/12/06	111	50 - 130	114	50 - 130	<0.050	ug/L		
9091558	Naphthalene	2023/12/06	101	50 - 130	107	50 - 130	<0.050	ug/L		
9091558	Phenanthrene	2023/12/06	107	50 - 130	110	50 - 130	<0.030	ug/L	NC	30
9091558	Pyrene	2023/12/06	116	50 - 130	122	50 - 130	<0.050	ug/L		
9091562	F2 (C10-C16 Hydrocarbons)	2023/12/06	89	60 - 130	83	60 - 130	<100	ug/L	NC	30
9091562	F3 (C16-C34 Hydrocarbons)	2023/12/06	89	60 - 130	85	60 - 130	<200	ug/L	NC	30



### QUALITY ASSURANCE REPORT(CONT'D)

exp Services Inc

Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

		Matrix Spike		SPIKED BLANK		Method Blank		RPD		
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9091562	F4 (C34-C50 Hydrocarbons)	2023/12/06	83	60 - 130	76	60 - 130	<200	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 (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).



Client Project #: OTT-23002538-A0

Site Location: 1824-1826 BANK ST, OTTAWA, ON

Your P.O. #: 1824-1826 BANK ST

Sampler Initials: SZA

### **VALIDATION SIGNATURE PAGE**

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

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.

Maxxam Analytics C3AR834 Presence of Visible Particulate/Sediment CAM FCD-01013/5 Page 1 of 1 When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below Affix Job Label Here **Bottle Types** Inorganics Organics Hydrocarbons Volatiles Other Pest/ Pest/ SVOC/ SVOC/ Metals Organic Organic PCB PAH PAH FI F2-F4 F2-F4 voc Herb Herb ABN ABN 1 of 2 2 of 2 1 of 2 2 of 2 voc voc Sample ID CrVI CN F4G (Diss.) 1 of 2 2 of 2 1 of 2 2 of 2 1 of 2 2 of 2 /Furan Vial 1 Vial 2 Vial 3 Vial 4 1 of 2 Vial 1 2 of 2 Vial 2 Vial 3 Vial 4 13H-1 BH-10 Aup 3 BH-9 13 6 9 10 Comments: Except Metals Legend: P Suspended Particulate Recorded By: (signature/print) TS Trace Settled Sediment (just covers bottom of container or less) Sediment greater than (>) Trace, but less than (<) 1 cm

www.8VNA.com

6740 Campobello Road, Mississauga, Ontario 15N 2L8 Phone: 905-817-5700 +xx: 505-917-5779 Toll Free: 800-563-62x6.

ENV COC - 0001445

Page of \_\_\_

Invoice Information Invoice to (requires report)		Report information (if dif	fers from invesce)	1	Project Information	
Contact Lechwells to		Company. Contact Name.				
					1824-1846 Bankst	(11 (17 (11)))
addinas: 2650 Ever NVEW DI.	Street Address:			Project #:	OTT-23002538-AG	LAN USE ONLY - PLACE STICKER HERE
City OTTAWA Provide Code:	City:	Pro	Postal	Site #:	1824-1846 Bankst	
France: 613-638-1899eer.6327	Phone:	100	Corde:	Site Location:	Ottomo 101.	
Leah wells Dexe 200	Emails		7	Site Locution	012000100	Rush Confirmation #:
Explet.	Copies:		7	Satispled By:	Shawing + Abtel 40	he.
	ille a		1 2 1 4	5 6 7	5 ha hyport Abol 100	17 18 19 29 11 22 Regular Turnaround Time (TAV)
Table 1 New Park Med Pint Table 2 Int / Carnes Come Table 3 Apr / Carner For SSC Table 1 Apr / Carner For SSC	fieg Ss8* fieg Ss8* min: 3 day MISA PWOG	TA1 Storm Server Bylaw Municipality Other:	[a[1]	i de		∑ 5 to 7 Dey ☐ 10 Oug
teclupe of iteria or Confliction	NAME OF TAXABLE PARTY.	THE RESERVE OF THE PARTY OF THE	A DOMESTICATION OF THE PARTY OF	or But	ते ज	Streating 1 the
		EDYRETT BUILDING SEATAS		l por	1000	2 \$ □20av □25.,
	i trat	7 Sanytes Time	SERVICE SERVICE	et on	のできる。	15 [14 Day
Sample IdeotoFeation (please price or Type)	7444	MAN DO NY WAST	STEED THIERED PHILD PRESERVED LAB PRETAGNON 1	2 2 2	ははてい	\$ 1 8 Onte 7000 1681 1 06
			5 2 3 5	C 2 2	3 CA	Comments
BH-1	700	NOV 30 10 2001	cw l	1	111	
13 H-10		1 29 150				
Pup.		1 30 30				
· B4-9		29 2 5				
Tr. blank						30-Nov-23 11:39
The state of the s	-			IV		Katherine C 1
Field blank		1 30 10 30	1	Y	4,4	
			y			- C3AR834
8						
9						- JDK ENV-1763
10	5 1					11111
ė.	7					++++
	29.50.20.20.20	AT THE PERSON AND THE		COARTANNES DO		
					ng de Theodom in of distribut document benden Beardon distributed to detail sacroy	ON PROGRAM SAND A RESTAINSE OF OUR TERMS AND LONDING ASSAULCS ARE
grand the state of the little			for ho	Contact to the Second	LUNUS DNU	Ferrperatura
See an assessing to the seed of the seed o	119	Swell present	0	3 1	- y Sul present	Yes No reading by
Seal intest Seving morte present		Seal intect Cooling media present	2 ,		Seal intact	
Relinquisped (at (Signature) Print)	Date Di	1 Nimz	Receiver last (dianote	re/ Prigg	1 Conling media present	Time Special instructions
: Shahynaz Abdelads 2023	11 3		Jamuel Durand	11	No 1023 11 30	MH MM
: sharmy na - Home mas cocs	11 5	The second secon				and the second s
<u> </u>		1 2	ameet RAVNEST	KHUR	Bene 2083 19 01	08 58

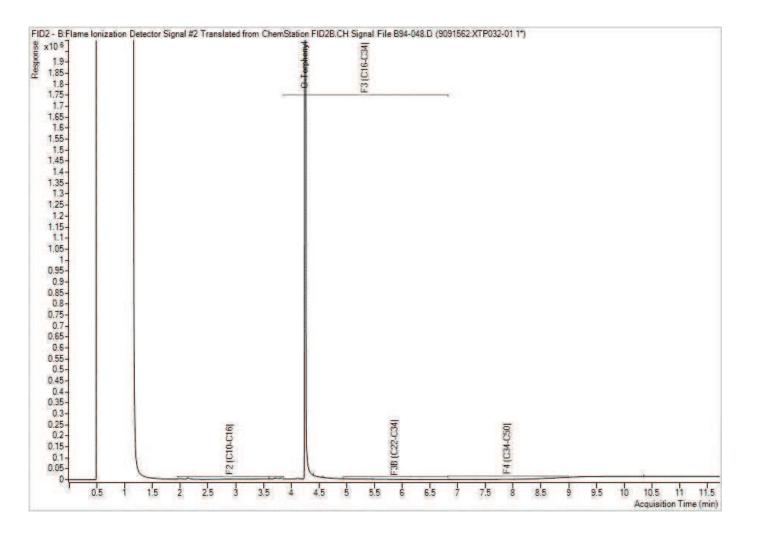
exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: BH-1

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



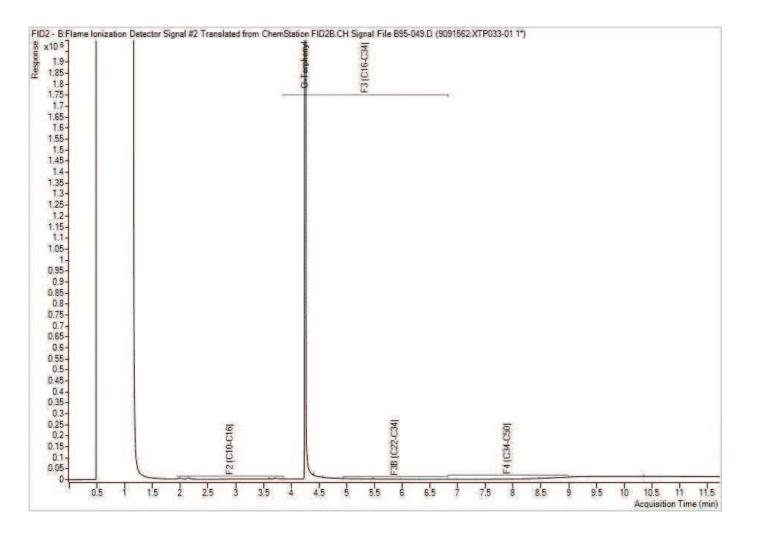
exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: BH-10

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



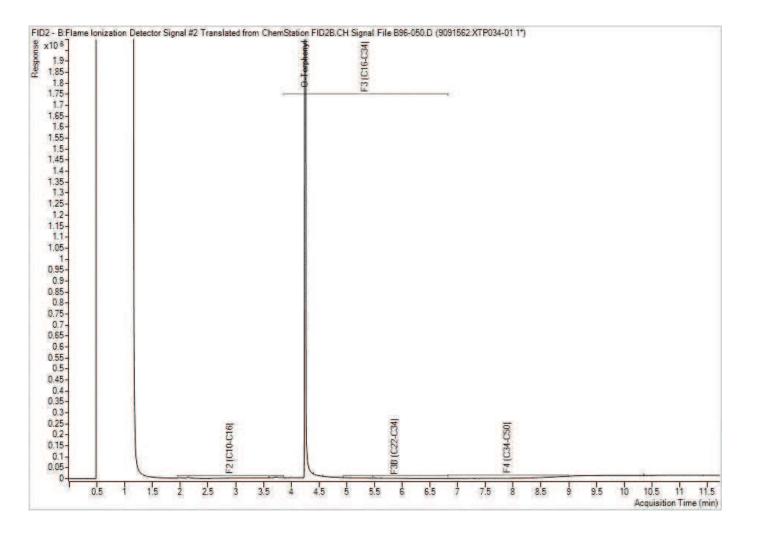
exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: DUP.

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



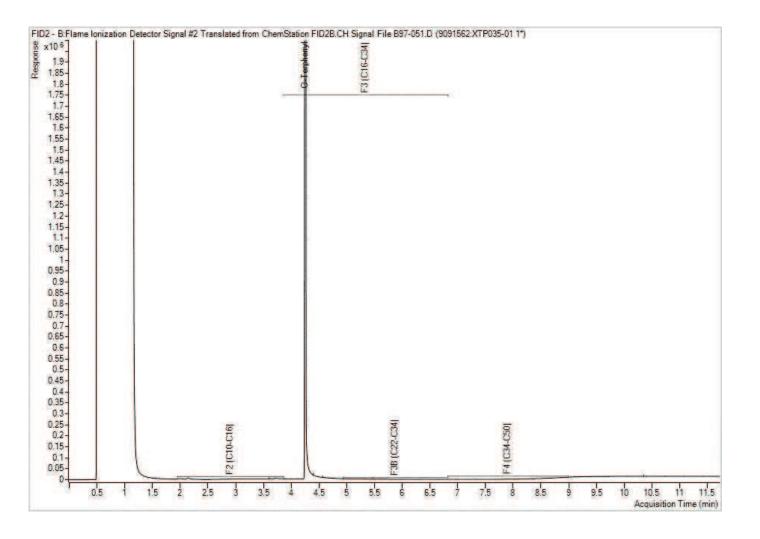
exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: BH-9

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



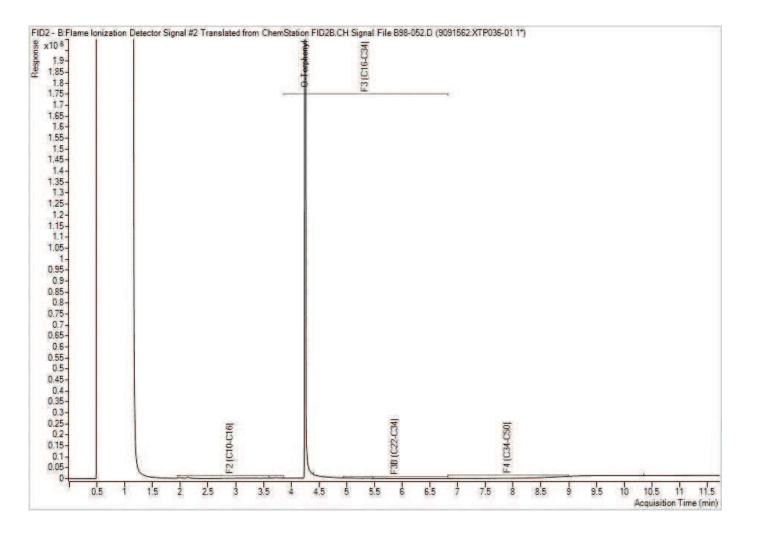
exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: TRIP BLANK

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



exp Services Inc

Client Project #: OTT-23002538-A0

Project name: 1824-1826 BANK ST, OTTAWA, ON

Client ID: FIELD BLANK

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

