

Phase Two Environmental Site Assessment

1850 & 1890 Mayfield Road
Caledon, Ontario

TOWN OF CALEDON
PLANNING
RECEIVED
Dec 19, 2024

Prepared For:

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DS Project No: 24-197-100

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Executive Summary

DS Consultants Ltd. (DS) was retained by ARGO Mayfield West IV Limited (the “Client”) to conduct a Phase Two Environmental Site Assessment (ESA) of the Property located at 1850 & 1890 Mayfield Road, Caledon, Ontario, herein referred to as the “Phase Two Property” or “Site”. DS understands that this Phase Two ESA was requested for due diligence purposes with respect to the proposed redevelopment of the Phase One Property for residential purposes. It is further understood that the proposed development will consist of a low-rise residential community.

It is understood that the intended future residential property use is not considered to be a more sensitive property use as defined under O.Reg. 153/04 (as amended); therefore the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) is not mandated under O.Reg. 153/04.

The Phase Two ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase Two ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to confirm whether contaminants are present, and at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

The Phase One Property is an 8.566-hectare (21.17 acres) parcel of land situated within a rural neighbourhood in the Town of Caledon, Ontario. The Phase One Property is located approximately 255 m southwest of the intersection of Mayfield Road and Chinguacousy Road and was occupied by agricultural fields at the time of this investigation.

The Phase One ESA completed in July 2024 indicated that the Phase Two Property was first developed for residential purposes between 1954 and 1965. The residential houses were demolished between October 2019 and July 2020 and has been used for agricultural purposes. A total of eight (8) Potentially Contaminating Activities (PCAs) were identified in the Phase One ESA, which were considered to be contributing to three (3) APECs on the Phase Two Property. A summary of the APECs, associated PCAs, and contaminants of potential concern (copc) identified is presented in the table below:

Table E-1: Summary of APECs

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Central portion of Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-5	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-2	South portion of Property	#N/S – Seasonal De-icing Activities	Off Site PCA-6	EC, SAR	Soil
				Na, Cl-	Groundwater
APEC-3	Northeast portion of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-7	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4	Southeast portion of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-9	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

Based on the findings of the Phase One ESA it was concluded that a Phase Two ESA is warranted in order to assess the soil and groundwater conditions on the Phase Two Property.

The Phase Two ESA was completed concurrently with the geotechnical investigation. The Geotechnical investigation involved the advancement of eight (8) boreholes, to a maximum depth of 6.7 mbgs which were completed between July 8 and 9, 2024, and the environmental investigation included an additional 11 shallow boreholes to a depth of 0.5 mbgs on July 18, 2024 under the supervision of DS personnel. An additional three (3) boreholes were hand augured to a depth of 0.5 mbgs. Groundwater monitoring wells were installed in four (4) of the boreholes for the assessment of groundwater flow direction. The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes in accordance with the requirements of O.Reg. 153/04 (as amended). Soil samples were collected and submitted for analysis of all PCOCs, including: metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, pH, EC, SAR, PHCs, VOCs, and PAHs.

The soil analytical results were compared to the “Table 2: Full Depth Generic Site Condition Standards for Residential/Parkland/Institutional Use” provided in the MECP document entitled, “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” dated April 15, 2011 (Table 2 Standards) for medium and fine-textured soils and residential/parkland/institutional property use.

Based on the findings of the Phase Two ESA, DS presents the following findings:

- ◆ A surficial layer of topsoil approximately 250 to 280 mm in thickness was encountered in all of the boreholes advanced with the exception of BH24-8 which encountered fill material of silty sand at the surface to a depth of 0.8 mbgs. Reworked native clayey silt was encountered in all boreholes and was 0.5 to 1.2 m in thickness. The native overburden material encountered below the fill material consisted of clayey silt to silty clay till, with trace amounts of sand and gravel. The clayey silt till unit extended to borehole termination at 6.7 mbgs. A seam of silty sand was encountered in BH24-3 with a thickness of 0.5 m and BH24-6 with a thickness of 1.3 m. BH24-3 encountered sandy silt till below the clayey silt till with a thickness of 0.4 m. Bedrock was not encountered at this time.
- ◆ The depth to groundwater was measured in four (4) monitoring wells installed during the course of this investigation. The monitoring wells were screened to intercept the groundwater water table. The groundwater levels were found to range between 0.5 to 1.3 mbgs on July 23, 2024, with corresponding elevations of 254.5 to 257.6 metres above sea level (masl). Based on the groundwater elevations recorded, the groundwater flow direction appears to be southerly towards Credit River. It is possible that the groundwater levels may vary seasonally. The groundwater levels may also be impacted by other factors such as historical infilling activities, subsurface utility trenches, and similar subsurface anomalies. The groundwater flow direction can only be confirmed through long term monitoring.
- ◆ Soil samples were collected from the boreholes advanced on the Phase Two Property and submitted for analysis of metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, pH, EC, SAR, PHCs, VOCs, and PAHs. All of the samples analysed met the Table 2 SCS, however the reported laboratory detection limits were elevated in two soil samples shown below:

Table E-2: Summary of Soil Impacts Identified

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH24-11	0.0-0.5	Bromomethane	ug/g	0.05	<0.080

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
		1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080
		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
		1,2-Dichloropropene	ug/g	0.081	<0.10
BH24-13	0.0-0.5	Bromomethane	ug/g	0.05	<0.080
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
		1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080
		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
		1,2-Dichloropropene	ug/g	0.081	<0.10

Notes:

- Sample exceeds Table 2 SCS

- Detection limit exceeds Table 2 SCS

Two (2) additional samples, BH24-11A and BH24-13A, were collected from within 0.5 m of the original boreholes and submitted for VOCs. The results indicated that the samples met the MECP Table 2 SCS.

Based on a review of the findings of this Phase Two ESA, DS presents the following conclusions and recommendations:

- ◆ The results of the chemical analyses conducted on soil and groundwater samples indicate that the applicable Site Condition Standards have been met;
- ◆ Based on the findings of this Phase Two ESA, a Record of Site Condition may be filed for the Phase Two Property;
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

Table of Contents

1.0	Introduction	5
1.1	Site Description.....	5
1.2	Property Ownership.....	6
1.3	Current and Proposed Future Use.....	6
1.4	Applicable Site Condition Standards	6
2.0	Background Information.....	7
2.1	Physical Setting	7
	2.1.1 Water Bodies and Areas of Natural Significance	7
	2.1.2 Topography and Surface Water Draining Features	7
2.2	Past Investigations.....	8
	2.2.1 Previous Report Summary	8
3.0	Scope of the Investigation.....	8
3.1	Overview of Site Investigation.....	8
3.2	Media Investigated.....	9
	3.2.1 Rationale for Inclusion or Exclusion of Media	9
	3.2.2 Overview of Field Investigation of Media.....	9
3.3	Phase One Conceptual Site Model.....	9
	3.3.1 Potentially Contaminating Activity Affecting the Phase One Property.....	10
	3.3.2 Contaminants of Potential Concern	10
	3.3.3 Underground Utilities and Contaminant Distribution and Transport	10
	3.3.4 Geological and Hydrogeological Information	11
	3.3.5 Uncertainty and Absence of Information.....	11
3.4	Deviations from Sampling and Analysis Plan.....	12
3.5	Impediments.....	12
4.0	Investigation Method.....	12
4.1	General.....	12
4.2	Drilling and Excavating.....	12
4.3	Soil Sampling.....	13
4.4	Field Screening Measurements	13
4.5	Groundwater Monitoring Well Installation	14
4.6	Groundwater Sampling	15
4.7	Sediment Sampling.....	15
4.8	Analytical Testing.....	15
4.9	Residue Management Procedures.....	15
	4.9.1 Soil Cuttings From Drilling and Excavations	15
	4.9.2 Fluids from Equipment Cleaning	15
4.10	Elevation Surveying.....	15
4.11	Quality Assurance and Quality Control Measures	16

4.11.1	Sample containers, preservation, labelling, handling and custody for samples submitted for laboratory analysis, including any deviations from the SAP	16
4.11.2	Description of equipment cleaning procedures followed during all sampling	16
4.11.3	Description of how the field quality control measures referred to in subsection 3 (3) were carried out	16
4.11.4	Description of, and rationale for, any deviations from the procedures set out in the quality assurance and quality control program set out in the SAP	17
5.0	Review and Evaluation.....	17
5.1	Geology.....	17
5.2	Ground Water Elevations and Flow Direction	18
5.2.1	Rationale for Monitoring Well Location and Well Screen Intervals.....	18
5.2.2	Results of Interface Probe Measurements	18
5.2.3	Product Thickness and Free Flowing Product.....	18
5.2.4	Groundwater Elevation	18
5.2.5	Groundwater Flow Direction.....	18
5.2.6	Assessment of Potential for Temporal Variability in Groundwater Flow Direction	19
5.2.7	Evaluation of Potential Interaction Between Buried Utilities and the Water Table	19
5.3	Ground Water Hydraulic Gradients.....	19
5.3.1	Horizontal Hydraulic Gradient	19
5.3.2	Vertical Hydraulic Gradient	19
5.4	Fine-Medium Soil Texture.....	19
5.4.1	Rationale for use of Fine-Medium Soil Texture Category.....	19
5.4.2	Results of Grain Size Analysis.....	20
5.4.3	Rationale for the Number of Samples Collected and Analyzed	20
5.5	Soil Field Screening	20
5.6	Soil Quality.....	20
5.6.1	Metals and ORPs.....	21
5.6.2	Petroleum Hydrocarbons.....	21
5.6.3	Volatile Organic Compounds	21
5.6.4	Polycyclic Aromatic Hydrocarbons.....	22
5.6.5	Commentary on Soil Quality	22
5.7	Ground Water Quality.....	22
5.8	Sediment Quality	22

5.9	Quality Assurance and Quality Control Results	22
5.10	Phase Two Conceptual Site Model	24
6.0	Conclusions	24
6.1	Qualifications of the Assessors	25
6.2	Signatures	26
6.3	Limitations	27
7.0	References	28

TABLES

Table E-1: Summary of APECs.....	ii
Table E-2: Summary of Soil Impacts Identified.....	iii
Table 1-1: Phase Two Property Information	6
Table 1-2: Phase Two Property Ownership	6
Table 3-1: Rationale of Sampling Media	9
Table 3-2: Field Investigation of Media.....	9
Table 3-3: Summary of PCAs Contributing to APECs.....	10
Table 4-1: Summary of Drilling Activities	12
Table 4-2: Field Screening Equipment.....	14
Table 4-3: Summary of Sample Bottle Preservatives	16
Table 5-1: Summary of Geologic Units Investigated.....	17
Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations.....	19
Table 5-3: Summary of Grain Size Analyses	20
Table 5-4: Summary of VOCs in Soil	21
Table 5-5: Summary of QA/QC Results	23

Enclosures

FIGURES

Figure 1 – Site Location Plan
Figure 2 – Phase One Property Site Plan
Figure 3 – Phase One Study Area
Figure 4 – PCA within Phase One Study Area
Figure 5 – Borehole/Monitoring Well Location Plan with APECs
Figure 6 – Soil Characterization – Metals and ORPs
Figure 7 – Soil Characterization – PHCs and BTEX
Figure 8 – Soil Characterization – VOCs
Figure 9 – Soil Characterization – PAHs
Figure 10A – Contaminant Transport Diagram
Figure 10B – Contaminant Transport Diagram

ENCLOSED TABLES

Table 1: Summary of Monitoring Well Installation and Groundwater Data
Table 2: Summary of Soil Samples Submitted for Chemical Analysis
Table 3: Summary of APECs Investigated
Table 4: Summary of Metals and ORPs in Soil
Table 5: Summary of PHCs and BTEX in Soil
Table 6: Summary of VOCs in Soil
Table 7: Summary of PAHs in Soil
Table 8: Summary of Maximum Concentrations in Soil
Notes for Soil and Groundwater Summary Tables

APPENDICES

Appendix A – Plan of Survey
Appendix B – Sampling and Analysis Plan
Appendix C – Borehole Logs
Appendix D – Laboratory Certificates of Analysis
Appendix E – Phase Two Conceptual Site Model

1.0 Introduction

DS Consultants Ltd. (DS) was retained by ARGO Mayfield West IV Limited to complete a Phase Two Environmental Site Assessment (ESA) of the Property located at 1850 & 1890 Mayfield Road, Caledon, Ontario, herein referred to as the “Phase Two Property” or “Site”. It is DS’s understanding that this Phase Two ESA was requested for due diligence purposes with respect to the proposed redevelopment of the Phase One Property for residential purposes. It is further understood that the proposed development will consist of a low-rise residential community.

It is understood that the intended future residential property use is not considered to be a more sensitive property use as defined under O.Reg. 153/04 (as amended); therefore the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) is not mandated under O.Reg. 153/04.

The Phase Two ESA was completed to satisfy the intent of the requirements, methodology and practices for a Phase One ESA as described in Ontario Regulation 153/04 (as amended). The objective of this Phase Two ESA is to confirm whether contaminants are present, and at what concentration are they present on the Phase Two Property, as related to the Areas of Potential Environmental Concern (APEC) identified in the Phase One ESA.

1.1 Site Description

The Phase One Property is an irregular shaped 8.566-hectare (21.17 acres) parcel of land situated within a rural neighbourhood in the Town of Caledon, Ontario. The Phase One Property is located approximately 255 m southwest of the intersection of Mayfield Road and Chinguacousy Road, and was vacant at the time of this investigation. A Site Location Plan is provided in Figure 1.

For the purposes of this report, Mayfield Road is assumed to be aligned in an east-west orientation, and Chinguacousy Road in a north-south orientation. A Plan of Survey for the Phase One Property was not provided at this time.

The Property is currently vacant. A Site Plan depicting the orientation of the former buildings on-site is provided in Figure 2.

Additional details regarding the Phase Two Property are provided in the table below.

Table 1-1: Phase Two Property Information

Criteria	Information	Source
Legal Description	PART LOT 18 CONCESSION 3 WEST OF HURONTARIO STREET, (CHINGUACOUSY) AS IN RO912215; SAVE AND EXCEPT PARTS 1 AND 2, EXPROPRIATION PLAN PR4281022; SUBJECT TO AN EASEMENT AS IN CH27914; SUBJECT TO AN EASEMENT OVER PART LOT 18 CONCESSION 3 WEST OF HURONTARIO STREET, (CHINGUACOUSY) AS IN RO912215; DESIGNATED AS PART 3, EXPROPRIATION PLAN PR4281022 AS IN PR4281022; TOWN OF CALEDON; and PT LT 18 CON 3 WHS CHINGUACOUSY AS IN RO1077766 SAVE AND EXCEPT PARTS 1 AND 2 ON EXPROPRIATION PLAN PR4281079 AS IN PR4281079; SUBJECT TO AN EASEMENT OVER PART 3 ON EXPROPRIATION PLAN PR4281079 AS IN PR4281079; TOWN OF CALEDON	Land Registry Office
Property Identification Number (PIN)	14252-2304 (LT) 14252-2302 (LT)	Land Registry Office
Current Site Occupants	Vacant	Site Reconnaissance
Site Area	8.566 hectares (21.17 acres)	Land Registry Office

1.2 Property Ownership

The ownership details for the Phase Two Property are provided in the table below.

Table 1-2: Phase Two Property Ownership

Property Owner	Address	Contact
ARGO Mayfield IV Limited	4900 Palladium Way, Unit 105 Burlington, Ontario, L7M 0W7	Tony Vella Phone: 905-407-5570 Email: tony@argoland.com

1.3 Current and Proposed Future Use

The Phase Two Property is currently occupied by agricultural fields and formerly occupied by residential houses which is considered to be Residential Property Use under O.Reg. 153/04 (as amended). It is DS's understanding that the Client intends to redevelop the Site for Residential Use.

1.4 Applicable Site Condition Standards

The applicable Site Condition Standards (SCS) for the Phase Two Property are considered by the Qualified Person (QP) to be the Table 2 SCS: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with

medium-fine textured soils as contained in the April 15, 2011 Ontario Ministry of Environment, Conservation and Parks (MECP) document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, herein referred to as the “Table 2 SCS”.

The selection of the Table 2 SCS is considered appropriate based on the following rationale:

- ◆ The Town of Caledon relies on groundwater as a potable water source;
- ◆ The Site is not considered to be environmentally sensitive, as defined under O.Reg. 153/04 (as amended);
- ◆ The proposed future use of the Phase Two Property will be residential;
- ◆ The Site is not located within 30 m of a water body;
- ◆ The pH of the soils analyzed during this Phase Two ESA are within the accepted range specified under O.Reg. 153/04 (as amended); and
- ◆ Bedrock was not encountered within 2 metres of the ground surface.

2.0 Background Information

2.1 Physical Setting

2.1.1 Water Bodies and Areas of Natural Significance

The Etobicoke Creek is the closest body of water to the Phase Two Property, located approximately 3.6 km east of the Phase Two Property.

The Natural Heritage Areas database published by the Ministry of Natural Resources (MNR) was reviewed to identify the presence/absence of areas of natural significance including provincial parks, conservation reserves, areas of natural and scientific interest, wetlands, environmentally significant areas, habitats of threatened or endangered species, and wilderness areas. The regional and municipal Official Plans (Peel Region and Town of Caledon) were also reviewed as part of this assessment.

No areas of natural or scientific interest were identified within the Phase One Study Area.

2.1.2 Topography and Surface Water Draining Features

The Phase Two Property is located in a rural setting, at an elevation of 256 to 259 metres above sea level (masl). The topography of the Phase Two Property is generally sloped to the south. The neighbouring property are generally at similar elevations, and the topography in the vicinity of the Phase Two Property generally slopes to the south. There are drainage features (e.g. ditches, swales, etc.) present on-Site. Surface water flow associated with

precipitation events is anticipated to run overland and drain into the ditches along Mayfield Road.

2.2 Past Investigations

2.2.1 Previous Report Summary

DS reviewed the following environmental report prepared for the Property. The report was provided by the client to DS.

- ◆ *“Phase One Environmental Site Assessment, 1850 Mayfield Road, Caledon, Ontario”*, prepared for ARGO Development Corp., prepared by DS Consultants, dated July 7, 2024 (DS 2024 Phase One ESA).

This report was reviewed in order to assess for the presence of known or suspected PCAs and APECs, and to determine if there are known soil and/or groundwater impacts on the Phase One Property or on Properties within the Phase One Study Area. The pertinent information is provided in Section 3.3.

3.0 Scope of the Investigation

The scope of the Phase Two ESA was designed to investigate the portions of the Site determined in the Phase One ESA to be Areas of Potential Environmental Concern. This Phase Two ESA was conducted in general accordance with O.Reg. 153/04 (as amended). The scope of the investigation including the subsurface investigation, sampling, and laboratory analysis was based on the findings of the Phase One ESA and was limited to the portions of the Site which were accessible.

3.1 Overview of Site Investigation

The following tasks were completed as part of the Phase Two ESA:

- ◆ Preparation of a Health and Safety Plan to ensure that all work was executed safely;
- ◆ Clearance of public private underground utility services prior to commencement of subsurface investigative operations;
- ◆ Preparation of a Sampling and Analysis Plan (SAP);
- ◆ Retained a MECP licenced driller to advance a total of eight (8) boreholes on the Phase Two Property, to depths of 6.7 mbgs. Four (4) of the boreholes were instrumented with groundwater monitoring wells upon completion. A total of 16 boreholes were hand augured to a depth of 0.5 mbgs. The soil lithology was logged during drilling, and representative soil samples were collected at regular intervals. The soil samples

were screened for organic vapours using a RKI Eagle 2 MultiGas Detector, and examined for visual and olfactory indications of soil impacts;

- ◆ Submitted “worst case” soil samples collected from the boreholes for laboratory analysis of relevant contaminants of potential concern (COPCs) as identified in the Phase One ESA;
- ◆ Conducted groundwater level measurements in the monitoring wells in order to determine the groundwater elevation, and to establish the local groundwater flow direction;
- ◆ Surveyed all monitoring wells to a geodetic benchmark;
- ◆ Compared all soil analytical data to the applicable MECP SCS; and
- ◆ Prepared a Phase Two ESA Report in general accordance with O.Reg. 153/04 (as amended).

3.2 Media Investigated

3.2.1 Rationale for Inclusion or Exclusion of Media

Table 3-1: Rationale of Sampling Media

Media	Included or Excluded	Rationale
Soil	Included	Soil was identified as a media of potential impact in the Phase One ESA, based on the historical fill material placed on-Site.
Groundwater	Excluded	Groundwater was not identified as a media of potential impact in the Phase One ESA with the exception of seasonal de-icing which is exempt per Section 49.1 (1) of O.Reg. 153/04.
Sediment	Excluded	Sediment is not present on the Phase Two Property.
Surface Water	Excluded	Surface water is not present on the Phase Two Property.

3.2.2 Overview of Field Investigation of Media

Table 3-2: Field Investigation of Media

Media	Methodology of Investigation
Soil	A total of 21 boreholes were advanced on the Phase Two Property, to a maximum depth of 6.7 mbgs. Soil samples were collected and submitted for analysis of all relevant PCOCs.

3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at 1850 & 1890 Mayfield Road, Caledon, Ontario. The Phase One Conceptual Site Model is presented in Figures 2, 3, 4, and 5 and visually depict the following:

- ◆ Any existing buildings and structures
- ◆ Water bodies located in whole, or in part, on the Phase One Study Area
- ◆ Areas of natural significance located in whole, or in part, on the Phase One Study Area

- ◆ Water wells at the Phase One Property or within the Phase One Study Area
- ◆ Roads, including names, within the Phase One Study Area
- ◆ Uses of properties adjacent to the Phase One Property
- ◆ Areas where any PCAs have occurred, including location of any tanks
- ◆ Areas of Potential Environmental Concern

3.3.1 Potentially Contaminating Activity Affecting the Phase One Property

The PCAs which are considered to contribute to APECs on, in or under the Phase One Property are summarized in the table below:

Table 3-3: Summary of PCAs Contributing to APECs

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-5	#30 – Importation of Fill Material of Unknown Quality	According to the 2009 aerial imagery, fill materials may have been placed on the central portion of the Phase One Property, along the eastern limit of 1850 Mayfield Road.	Yes – APEC-1
PCA-6	#N/S – Seasonal De-icing Activities	The adjacent roadway, Mayfield Road, is likely subject to seasonal de-icing activities.	Yes – APEC-2
PCA-7	#30 – Importation of Fill Material of Unknown Quality	Evidence of potential placement of fill material is visible in satellite imagery from June 2015 in the northeast corner of 1890 Mayfield Road.	Yes – APEC-3
PCA-9	#30 – Importation of Fill Material of Unknown Quality	Fill material was encountered in the vicinity of Former House 2.	Yes – APEC-4

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

3.3.2 Contaminants of Potential Concern

The following contaminants of potential concern were identified for the Phase One Property: PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, and PAHs.

3.3.3 Underground Utilities and Contaminant Distribution and Transport

Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface.

The depth to groundwater at the Phase One Property is inferred to be approximately 1.2 to 4 mbgs, however, underground utilities were not identified at the Phase One Property and

are unlikely to act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

3.3.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat with a slight slope to the southeast, with a surface elevation of 258 masl in the northwest portion and 254 masl in the southwest portion. The topography within the Phase One Study Area generally slopes to the south, towards Credit River, located approximately 6.5 km south of the Phase One Property. The nearest body of water is Etobicoke Creek, located approximately 3.6 km east of the Phase One Property. Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is approximately 1.2 to 4 m. The shallow groundwater flow direction within the Phase One Study Area is inferred to be southerly towards Credit River.

The Site is situated within a drumlinized till plains physiographic region. The surficial geology within the Phase One Study area is described as “clay to silt-textured till derived from glaciolacustrine deposits or shale”, and the bedrock is described as “shale, limestone, dolostone and siltstone of the Queenston Formation”. Based on a review of MECP Well Records, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 19 to 32 mbgs.

3.3.5 Uncertainty and Absence of Information

DS has relied upon information obtained from federal, provincial, municipal, and private databases, in addition to records and summaries provided by ERIS. All information obtained was reviewed and assessed for consistency, however the conclusions drawn by DS are subject to the nature and accuracy of the records reviewed.

All reasonable inquiries were made to obtain reasonably accessible information, as mandated by O.Reg.153/04 (as amended). All responses to database requests were received prior to completion of this report. This report reflects the best judgement of DS based on the information available at the time of the investigation.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property as a result of potentially contaminating activities.

The QP has determined that the uncertainty does not affect the validity of the Phase One ESA Conceptual Site Model or the conclusions of this report.

3.4 Deviations from Sampling and Analysis Plan

The Phase Two ESA was completed in accordance with the SAP.

3.5 Impediments

DS was granted complete access to the Phase Two Property throughout the course of the investigation. No impediments were encountered.

4.0 Investigation Method

4.1 General

The Phase Two ESA followed the methodology outlined in the following documents:

- Ontario Ministry of the Environment “Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario” (December 1996);
- Ontario Ministry of the Environment “Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04” (June 2011);
- Ontario Ministry of the Environment “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” (July 2011) (Analytical Protocol);

The methods used in the Phase Two ESA investigation did not differ from the associated standard operating procedures.

4.2 Drilling and Excavating

A Site visit was conducted prior to drilling to identify the borehole locations based on the APECs identified in the Phase One ESA. The selected borehole locations are presented on Figure 5. The borehole locations were cleared of underground public and private utility services prior to commencement of drilling. A summary of the drilling activities is provided in the table below.

Table 4-1: Summary of Drilling Activities

Parameter	Details
Drilling Contractor	Davis Drilling
Drilling Dates	July 8-9, 2024
Drilling Equipment Used	Track-mounted CME 55
Measures taken to minimize the potential for cross contamination	◆ Soil sampling was conducted using a 50 mm stainless steel split spoon sampler. The split spoon sampler was brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with

Parameter	Details
	distilled water for each sampling interval in order to reduce the potential for cross contamination; ◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.
Sample collection frequency	Samples were collected at a frequency of every 0.6 m per 0.8 m from the ground surface to 3.1 mbgs, followed by one sample per 1.5 m to borehole termination depth.

4.3 Soil Sampling

Soil samples were collected using split-spoons. Discrete soil samples were collected from the split-spoon samplers by DS personnel using dedicated nitrile gloves.

A portion of each sample was placed in a resealable plastic bag for field screening, and the remaining portion was placed into laboratory supplied glass sampling jars. Samples intended for VOC and the F1 fraction of petroleum hydrocarbons analysis were collected using a laboratory-supplied soil core sampler, placed into the vials containing methanol for preservation purposes and sealed using Teflon lined septa lids. All sample jars were stored in dedicated coolers with ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

The subsurface soil conditions were logged by DS personnel at the time of drilling, and recorded on field borehole logs. The borehole logs are presented under Appendix C. Additional detail regarding the lithology encountered in the boreholes is presented under Section 6.1.

4.4 Field Screening Measurements

All retrieved soil samples were screened in the field for visual and olfactory observations. No obvious visual or olfactory evidence of potential contamination were noted. No aesthetic impacts (e.g. cinders, slag, hydrocarbon odours) were encountered during this investigation. The soil sample headspace vapour concentrations for all soil samples recovered during the investigation were screened using portable organic vapour testing equipment in accordance with the procedure outlined in the MECP's *'Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario'*.

The soil samples were inspected and examined to assess soil type, ground water conditions, and possible chemical contamination by visual and olfactory observations or by organic vapour screening. Samples submitted for chemical analysis were collected from locations judged by the assessor to be most likely to exhibit the highest concentrations of contaminants based on several factors including (i) visual or olfactory observations, (ii)

sample location, depth, and soil type (iii) ground water conditions and headspace reading. A summary of the equipment used for field screening is provided below:

Table 4-2: Field Screening Equipment

Parameter	Details
Make and Model of Field Screening Instrument	RKI Eagle 2, Model 5101-P2 Serial Number: E2J144
Chemicals the equipment can detect and associated detection limits	VOCs with dynamic range of 0 parts per million (ppm) to 2,000 ppm PHCs with range of 0 to 50,000 ppm
Precision of the measurements	3 significant figures
Accuracy of the measurements	VOCs: $\pm 10\%$ display reading + one digit Hydrocarbons: $\pm 5\%$ display reading + one digit
Calibration reference standards	PID: Isobutylene CGD: Hexane
Procedures for checking calibration of equipment	In-field re-calibration of the CGI was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the calibration had drifted by more than $\pm 10\%$.

A summary of the soil headspace measurements are provided in the borehole logs, provided under Appendix C.

4.5 Groundwater Monitoring Well Installation

Monitoring wells were installed upon completion of four (4) the boreholes advanced on the Phase Two Property. The monitoring wells were constructed of 51-millimetre (2-inch) inner diameter (ID) flush-threaded schedule 40 polyvinyl chloride (PVC) risers, equipped with a 3.1 m length of No. 10 slot PVC screen. The well screens were sealed at the bottom using a threaded cap and at the top with a lockable J-plug.

Silica sand was placed around and up to 0.6m above the well screen to act as a filter pack. Bentonite was placed from the ground surface to the top of the sand pack. The wells were completed with protective aboveground monument casings.

Details regarding the monitoring well construction can be found in Table 1, and on the borehole logs provided in Appendix C.

Disposable nitrile gloves were used to minimize the potential for cross-contamination during well installation. Dedicated equipment was used for well development and sampling for further minimize the risk of cross contamination.

4.6 Groundwater Sampling

Groundwater was identified as a media of concern for seasonal de-icing activities, however is exempt as per Section 49.1 (1) of O.Reg. 153/04. No groundwater sampling was conducted as a result.

4.7 Sediment Sampling

No sediment as defined under O.Reg. 153/04 (as amended) was present on the Phase Two Property at the time of this investigation. Sediment sampling was not conducted as a result.

4.8 Analytical Testing

The soil and groundwater samples collected were submitted to Bureau Veritas (BV) under chain of custody protocols. BV is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. BV conducted the analyses in accordance with the MECP document “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” dated March 9, 2004 (revised on July 1, 2011).

4.9 Residue Management Procedures

4.9.1 Soil Cuttings From Drilling and Excavations

The soil cuttings generated by the borehole drilling program were stored in 205 L drums, and left on-Site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

4.9.2 Fluids from Equipment Cleaning

Excess equipment cleaning fluids were stored in 20-L sealed plastic pails and removed by the drillers.

4.10 Elevation Surveying

The surface elevations at the borehole locations were surveyed by DS using a global navigation satellite system (GNSS) equipment (Sokkia GCX-2 GNSS RTK receiver) to determine the position and surface elevation of each borehole/monitoring well location.

The ground surface elevations can be found on the borehole logs presented in Appendix C.

4.11 Quality Assurance and Quality Control Measures

4.11.1 Sample containers, preservation, labelling, handling and custody for samples submitted for laboratory analysis, including any deviations from the SAP

All soil and groundwater samples were stored in laboratory-supplied sample containers in accordance with the MECP Analytical Protocol. A summary of the preservatives supplied by the laboratory is provided in the table below.

Table 4-3: Summary of Sample Bottle Preservatives

Media	Parameter	Sample Container
Soil	PHCs F1 VOCs	40 mL methanol preserved glass vial with septum lid.
	PHCs F2-F4 metals and ORPs PAHs	120 mL or 250 mL unpreserved glass jar with Teflon™-lined lid.

Groundwater samples were collected using dedicated equipment for each well. Groundwater samples collected for analysis of dissolved metals, mercury and hexavalent chromium were filtered in the field using a dedicated 0.45-micron in-line filter. Each sample container was labelled with a unique sample identification, the project number, and the sampling date. All samples were placed in an ice-filled cooler upon completion of sampling, and kept under refrigerated conditions until the time of delivery to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

4.11.2 Description of equipment cleaning procedures followed during all sampling

Dedicated, disposable nitrile gloves were used for each sampling event to reduce the potential for cross-contamination.

The split spoon sampler was brushed clean of soil, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination. Dedicated equipment was used for well development and sampling for further minimize the risk of cross contamination. Non-dedicated equipment (i.e. hand auger) was cleaned before initial use and between all measurement points with a solution of Alconox™ and distilled water. The Alconox™ solution was rinsed off using distilled water.

4.11.3 Description of how the field quality control measures referred to in subsection 3 (3) were carried out

Field duplicate samples were collected at the time of sampling. In accordance with O.Reg. 153/04, one duplicate sample was analyzed per ten samples submitted for analysis. A

laboratory prepared trip blank accompanied the groundwater samples during each sampling event and was submitted for laboratory analysis of VOCs.

All field screening devices (i.e. RKI Eagle 2, YSI Water Quality Meter) were calibrated prior to use by the supplier. Calibration checks were completed, and re-calibrations were conducted as required.

4.11.4 Description of, and rationale for, any deviations from the procedures set out in the quality assurance and quality control program set out in the SAP

There were no deviations from the QA/QC program described in the SAP.

5.0 Review and Evaluation

5.1 Geology

A summary of the subsurface conditions is presented below. Additional details may be found in the borehole logs appended in Appendix C. The boundaries of soil indicated on the borehole logs and described below are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change.

A surficial layer of topsoil approximately 250 to 280 mm in thickness was encountered in all of the boreholes advanced with the exception of BH24-8 which encountered fill material of silty sand at the surface to a depth of 0.8 m. Reworked native clayey silt was encountered in all boreholes and was 0.5 to 1.2 m in thickness. The native overburden material encountered below the fill material consisted of clayey silt to silty clay till, with trace amounts of sand and gravel. The clayey silt till unit extended to borehole termination at 6.7 m. A seam of silty sand was encountered in BH24-3 with a thickness of 0.5 m and BH24-6 with a thickness of 1.3 m. BH24-3 encountered sandy silt till below the clayey silt till with a thickness of 0.4 m. Bedrock was not encountered at this time.

Table 5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.25 to 0.28	259.5	255.7	Moisture Content: 16-42%
Fill – Silty Sand	0.8	257.5	256.7	Moisture Content: 20%
Clayey Silt	0.5 to 1.2	259.3	256.8	Water Table Encountered
Silty Sand	0.5 to 1.3	255.8	254.5	Moisture Content: 13-17%
Clayey Silt to Silty Clay Till	5.9	258.7	249.2	Moisture Content: 10-22%

Sandy Silt Till	0.4	251.5	251.1	Moisture Content: 9%
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5.2 Ground Water Elevations and Flow Direction

5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

A total of four (4) monitoring wells were installed on the Phase Two Property in order to assess the groundwater flow direction. The monitoring wells were screened to intersect the first water bearing formation encountered, in order to provide information regarding the quality of the groundwater at the water table. The monitoring wells were screened within the clayey silt to silty clay till unit encountered at an approximate depth of 0.8 to 6.7 mbgs. This unit is inferred to be an unconfined aquifer.

5.2.2 Results of Interface Probe Measurements

A summary of the groundwater level measurements is provided in Table 1. The groundwater level measurements were collected using a Solinst interface probe (model 122). The depth to groundwater was found to range between 0.5 to 1.3 mbgs on July 23, 2024. There was no indication of DNAPL or LNAPL in the monitoring wells at this time.

5.2.3 Product Thickness and Free Flowing Product

No evidence of product was observed in the monitoring wells at the time of the investigation.

5.2.4 Groundwater Elevation

The groundwater elevation was calculated by subtracting the depth to groundwater from the surface elevation determined by the surface elevation survey conducted as part of this investigation. A summary of the groundwater elevations calculated is presented in Table 1. Generally the groundwater elevation was found to range from 254.5 to 257.6 masl in the upper aquifer investigated.

5.2.5 Groundwater Flow Direction

The groundwater flow direction was interpreted using the groundwater elevations calculated for the monitoring wells installed on the Phase Two Property. Based on the groundwater elevations calculated, the groundwater flow direction is interpreted to be southerly towards the Credit River.

5.2.6 Assessment of Potential for Temporal Variability in Groundwater Flow Direction

The shallow aquifer investigated is inferred to be an unconfined aquifer, based on the soil stratigraphy observed in the boreholes advanced on the Phase Two Property. It is possible that temporal variations in groundwater elevations may occur on the Phase Two Property in response to seasonal weather patterns.

Temporal variability in groundwater level has the ability to influence the groundwater flow direction. The degree of variation in groundwater levels on the Phase Two Property can only be confirmed with long-term monitoring.

5.2.7 Evaluation of Potential Interaction Between Buried Utilities and the Water Table

The groundwater table was encountered at depths ranging from 0.5 to 1.3 mbgs on the Phase Two Property. No buried utility services are present on the Phase Two Property. Based on this utility trenches are not considered to be a potential preferential pathway for contaminant migration in groundwater.

5.3 Ground Water Hydraulic Gradients

5.3.1 Horizontal Hydraulic Gradient

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on July 23, 2024.

Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – (clayey silt to silty clay till)	Minimum: 0.00375 Average: 0.00492 Maximum: 0.00592

5.3.2 Vertical Hydraulic Gradient

The vertical hydraulic gradient was not calculated, as no groundwater impacts were identified on the Phase Two Property.

5.4 Fine-Medium Soil Texture

5.4.1 Rational for use of Fine-Medium Soil Texture Category

A total of seven (7) grain size analyses were conducted as part of this investigation and the concurrent geotechnical investigation. The results of the grain size analyses indicate that more than two-thirds of the soils encountered are medium to fine textured.

5.4.2 Results of Grain Size Analysis

A summary of the soil samples analyzed and the corresponding grain size results is presented in the table below:

Table 5-3: Summary of Grain Size Analyses

Sample	% Gravel	% Sand	% Silt	% Clay	Classification
BH24-1 SS5	1.5%	16%	48.3%	34.2%	Medium-fine textured
BH24-1 SS7	4.5%	11.6%	69.4%	14.5%	Medium-fine textured
BH24-2 SS2	6.4%	18.2%	46%	29.4%	Medium-fine textured
BH24-2 SS3	4.4%	18.5%	46.9%	30.2%	Medium-fine textured
BH24-2 SS2	0.6%	16.1%	48.6%	34.7%	Medium-fine textured
BH24-5 SS5	2.6%	21.6%	48.4%	27.4%	Medium-fine textured
BH24-8 SS6	4.4%	23.9%	46.5%	25.2%	Medium-fine textured

5.4.3 Rational for the Number of Samples Collected and Analyzed

The grain size analyses were conducted for the purposes of this Phase Two ESA, in addition to a geotechnical investigation which was conducted concurrently. At least one sample was analyzed per stratigraphic unit encountered to characterize the various strata encountered.

5.5 Soil Field Screening

Soil vapour headspace readings were collected at the time of sample collection, the results of which are presented on the borehole logs (Appendix C). The soil vapour headspace readings were collected using a calibrated RKI Eagle 2 equipped with a dual PID and CGD detector operated in methane elimination mode. The PID and CGD readings were non-detect (0 ppm).

The soil samples were also screened for visual and olfactory indicators of impacts (e.g. staining, odours). No visual or olfactory indicators of impacts were observed.

5.6 Soil Quality

The results of the chemical analyses conducted are presented in Tables 4 through 7. A visual summary of the location of the sample locations is provided in Figures 6 through 9. The laboratory certificates of analysis have been provided under Appendix D.

5.6.1 Metals and ORPs

A total of 13 samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of metals and ORPs. The results of the analyses are tabulated in Table 4, and presented on Figure 6. The results of the analyses indicated that the samples analyzed met the MECP Table 2 SCS.

5.6.2 Petroleum Hydrocarbons

A total of five (5) samples were submitted for analysis of PHCs (incl. BTEX). The results of the analyses are tabulated in Table 5, and presented on Figure 7. The results of the analyses indicated that the samples analyzed met the MECP Table 2 SCS.

5.6.3 Volatile Organic Compounds

A total of five (5) samples were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 6, and presented on Figure 8. The results of the analyses indicated the following samples exhibited laboratory detection limits higher than the corresponding SCS, thereby preventing evaluation against the standard:

Table 5-4: Summary of VOCs in Soil

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH24-11	0.0-0.5	Bromomethane	ug/g	0.05	<0.080
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
		1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080
		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
BH24-13	0.0-0.5	1,2-Dichloropropene	ug/g	0.081	<0.10
		Bromomethane	ug/g	0.05	<0.080
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080		

		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
		1,2-Dichloropropene	ug/g	0.081	<0.10

Notes:

- Sample exceeds Table 2 SCS

- Detection limit exceeds Table 2 SCS

Two (2) additional samples, BH24-11A and BH24-13A, were collected from 0.5 m from the original boreholes and submitted for VOCs to verify the results. The results confirmed that the samples submitted from BH24-11 and BH24-13 met the MECP Table 2 SCS.

5.6.4 Polycyclic Aromatic Hydrocarbons

A total of 13 samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 7, and presented on Figure 9. The results of the analyses indicated that the samples analyzed met the MECP Table 2 SCS.

5.6.5 Commentary on Soil Quality

The results indicated that the samples submitted met the MECP Table 2 SCS.

5.7 Ground Water Quality

No groundwater sampling was conducted at the time of the investigation as groundwater was not identified to be a media of concern based on the APECs identified.

5.8 Sediment Quality

No sediment was present on the Phase Two Property at the time of the investigation.

5.9 Quality Assurance and Quality Control Results

Collection of soil and groundwater samples was conducted in general accordance with the MECP *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*. As described in Section 5.12, dedicated equipment was used where possible, and all non-dedicated equipment was decontaminated before and between sampling events. All soil and groundwater samples were transferred directly into laboratory-supplied containers. The laboratory containers were prepared by the laboratory with suitable preservative, as required. All samples were stored and transported under refrigerated conditions. Chain of custody protocols were maintained from the time of sampling to delivery to the analytical laboratory.

The field QA/QC program involved the collection of field duplicate soil and groundwater samples, and the use of a trip blank for each groundwater sampling event (when suitable). In addition to the controls listed above, the analytical laboratory employed method blanks, internal laboratory duplicates, surrogate spike samples, matrix spike samples, and standard reference materials.

A summary of the field duplicate samples analyzed and an interpretation of the efficacy of the QA/QC program is provided in the table below.

Table 5-5: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
DUP-1	BH24-15	Soil	M&I, PAHs	All results were within the analytical protocol criteria for RPD with the exceptions below.

The following exceptions in the RPD protocols were identified:

- ◆ The RPD value for BH24-15 (DUP-1) of 11% exceeded the recommended 10% RPD limit for electrical conductivity. The variance in the analytical result between the parent and duplicate sample are attributed to the heterogeneity of the fill material analyzed.

Based on the interpretation of the laboratory results and the QA/QC program, it is the opinion of the QP that the laboratory analytical data can be relied upon.

All samples were handled in accordance with the MECP Analytical Protocol regarding sample holding time, preservation methods, storage requirements, and type of container.

BV routinely conducts internal QA/QC analyses in order to satisfy regulatory QA/QC requirements. The results of the BV QA/QC analyses for the submitted soil samples are summarized in the laboratory Certificates of Analyses provided in Appendix D.

The following comments were provided by BV on the laboratory Certificates of Analysis. Commentary on the comments has been provided below:

- ◆ Laboratory Certificate C4M0907 – The detection limits for BH24-11 and BH24-13 were raised due to high moisture content and/or low soil weight. The overall QA/QC for these met acceptability criteria. As such, DS does not consider this to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data; and
- ◆ Laboratory Certificate C4M0907 – The matrix spike recovery for chromium VI was below the lower control limit. BV notes this may be due to the reducing environment

of the sample. The sample was reanalyzed with the same results. As such, DS does not consider this result to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data.

- ◆ Laboratory Certificate C4S5575 – The matrix spike recovery for chromium VI was below the lower control limit. BV notes this may be due to the reducing environment of the sample. The sample was reanalyzed with the same results. As such, DS does not consider this result to be an issue of significant concern and it has no impact on the overall interpretation of the analytical data.

With respect to subsection 47(3) of O.Reg 153/04 (as amended), all certificates of analysis or analytical reports pursuant to clause 47(2) (b) of the regulation comply with subsection 47(3). A certificate of analysis has been received for each sample submitted for analysis and have been provided (in full) in Appendix D.

A review of the QA/QC sample results indicated that no issues were identified with respect to both the field collection methodology and the laboratory reporting. It is the opinion of the QP that the analytical data obtained are representative of the soil and groundwater conditions at the Phase Two Property for the purpose of assessing whether the soil and groundwater at the Phase Property meets the applicable MECP SCS.

5.10 Phase Two Conceptual Site Model

The Phase Two Conceptual Site Model is presented under Appendix E.

6.0 Conclusions

This Phase Two ESA occurred in concurrence with the geotechnical investigation involved that advancement of 20 boreholes, the installation of four (4) monitoring wells on the Phase Two ESA, and the collection of soil samples for analysis of the potential contaminants of concern, including: metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, pH, EC, SAR, PHCs, VOCs, and PAHs.

Based on the results of the information gathered through the course of the investigation, DS presents the following conclusions:

- ◆ A surficial layer of topsoil approximately 250 to 280 mm in thickness was encountered in all of the boreholes advanced with the exception of BH24-8 which encountered fill material of silty sand at the surface to a depth of 0.8 mbgs. Reworked native clayey silt was encountered in all boreholes and was 0.5 to 1.2 m in thickness. The native overburden material encountered below the fill material consisted of

clayey silt to silty clay till, with trace amounts of sand and gravel. The clayey silt till unit extended to borehole termination at 6.7 mbgs. A seam of silty sand was encountered in BH24-3 with a thickness of 0.5 m and BH24-6 with a thickness of 1.3 m. BH24-3 encountered sandy silt till below the clayey silt till with a thickness of 0.4 m. Bedrock was not encountered at this time.

- ◆ The groundwater flow is interpreted to be southerly towards the Credit River.
- ◆ The results of the chemical analyses conducted on soil and groundwater samples indicate that the applicable Site Condition Standards have been met;
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

It is the opinion of the QP_{ESA} that the applicable SCS for the soil and groundwater at the Phase Two Property have been met as of the Certification Date of August 12, 2024. No further sub-surface investigation is required regarding the environmental quality of the soil and groundwater at the Phase Two Property.

6.1 Qualifications of the Assessors

Megan Bender, B.E.S, EPT

Megan Bender is an Assistant Project Manager with DS Consultants Ltd. Megan holds a Bachelor's degree in Environmental Studies, specializing in environmental assessments, a minor in geography from the University of Waterloo and a Post Graduate Certificate in Environmental Engineering Applications from Conestoga College. Megan is registered as an Environmental Professional in training (EPT) with ECO Canada. Megan has been involved with Phase One and Phase Two Environmental Site Assessments, remediation, excess soil management, data interpretation and reporting, and geotechnical projects.

Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., QP_{ESA}

Mr. Patrick (Rick) Fioravanti is an Environmental Geoscientist specializing in Environmental Site Assessments, Brownfields Remediation Projects and Excess Soil Management. He holds an Honours Bachelor of Science with distinction in Toxicology from the University of Guelph and is a practicing member of the Association of Professional Geoscientists of Ontario (APGO). Rick is the Manager of Environmental Services with DS, responsible for the supervision and management of Phase One and Two Environmental Site Assessments, assessment of soil/fill management for import/export of soils, soil vapour and indoor air quality assessments, and remediation.

Rick has over a decade of environmental consulting experience and has conducted and/or managed hundreds of projects in his professional experience. Rick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings and has been involved in numerous remediation and risk assessment projects. Rick specializes in utilizing emerging technologies such as high-resolution site characterization and contaminant forensics to help Clients achieve their development objectives. Rick is a Qualified Person (QP) to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended) and Ontario Regulation 406/19 and has successfully filed numerous Records of Site Condition with the Ministry of Environment, Conservation and Parks.

6.2 Signatures

This Phase Two ESA was conducted under the supervision of Mr. Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA} in accordance with the requirements of O.Reg. 153/04 (as amended). The findings and conclusions presented have been determined based on the information obtained at the time of the investigation, and on an assessment of the conditions of the Site at this time.

We trust this report meets with your requirements. Should you have any questions regarding the information presented, please do not hesitate to contact our office.

Yours truly,

DS Consultants Ltd



Megan Bender, B.E.S., EPT
Assistant Project Manager - Environmental



Rick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Vice President – Environmental

6.3 Limitations

This report was prepared for the sole use of ARGO Mayfield West IV Limited and is intended to provide an assessment of the environmental condition on the property located at 1850 & 1890 Mayfield Road, Caledon, Ontario. The information presented in this report is based on information collected during the completion of the Phase Two Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

The conclusions drawn from the Phase Two ESA were based on information at selected observation and sampling locations. Conditions between and beyond these locations may become apparent during future investigations or on-Site work, which could not be detected or anticipated at the time of this investigation. The sampling locations were chosen based upon a cursory historical search, visual observations and limited information provided by persons knowledgeable about past and current activities on this Site during the Phase Two ESA activities. As such, DS Consultants Ltd. cannot be held responsible for environmental conditions at the Site that was not apparent from the available information.

7.0 References

- ◆ Armstrong, D.K. and Dodge, J.E.P. *Paleozoic Geology Map of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 219.
- ◆ Chapman, L.J. and Putnam, D.F. 2007. *The Physiography of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 228.
- ◆ Freeze, R. Allen and Cherry, John A., 1979. *Ground water*. Page 29.
- ◆ Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.
- ◆ Ontario Ministry of Environment, 15 April 2011. *Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act*.
- ◆ Ontario Ministry of the Environment, June 2011. *Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04*.
- ◆ Ontario Ministry of the Environment, July 2011. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*.
- ◆ The Ontario Geological Survey. 2003. *Surficial Geology of Southern Ontario*.
- ◆ "Phase One Environmental Site Assessment, 1850 Mayfield Road, Caledon, Ontario", prepared for ARGO Development Corp., prepared by DS Consultants, dated July 9, 2024.



Figures



**PHASE TWO
PROPERTY**

Legend

 Property Boundary



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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
1850 & 1890 Mayfield Road, Caledon, ON

Title: **SITE LOCATION PLAN**



Client:
ARGO MAYFIELD WEST IV LIMITED

Size:
8.5 x 11

Rev:
0

Approved By: R.F

Scale: As Shown

Drawn By: P.P/S.Y

Project No.: 24-197-100

Date: September 2024

Figure No.: **1**

Image/Map Source: Google Streetmap Image



Legend

 Property Boundary



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Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 1850 & 1890 Mayfield Road, Caledon, ON

Title: **PHASE TWO PROPERTY SITE PLAN**



Client:
ARGO MAYFIELD WEST IV LIMITED

Size:
 8.5 x 11

Rev:
 0

Approved By: R.F

Scale: As Shown

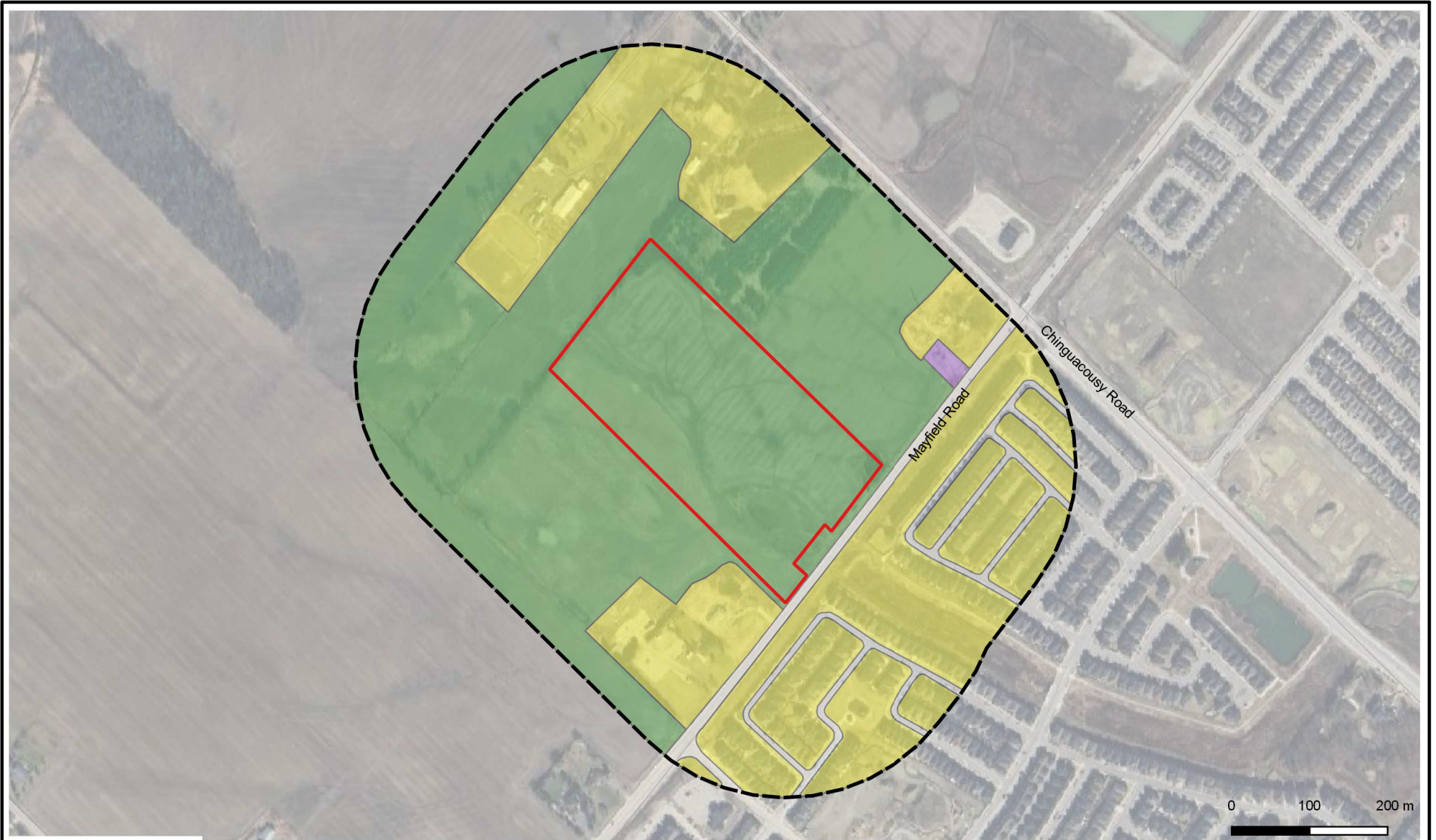
Image/Map Source: Google Satellite Image

Drawn By: P.P

Project No.: 24-197-100

Date: September 2024

Figure No.: **2**



Legend

- Property Boundary
- 250m Buffer
- Agricultural
- Industrial
- Residential



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Client:
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Project: **PHASE TWO ENVIRONMENTAL SITE ASSESSMENT**
 1850 & 1890 Mayfield Road, Caledon, ON

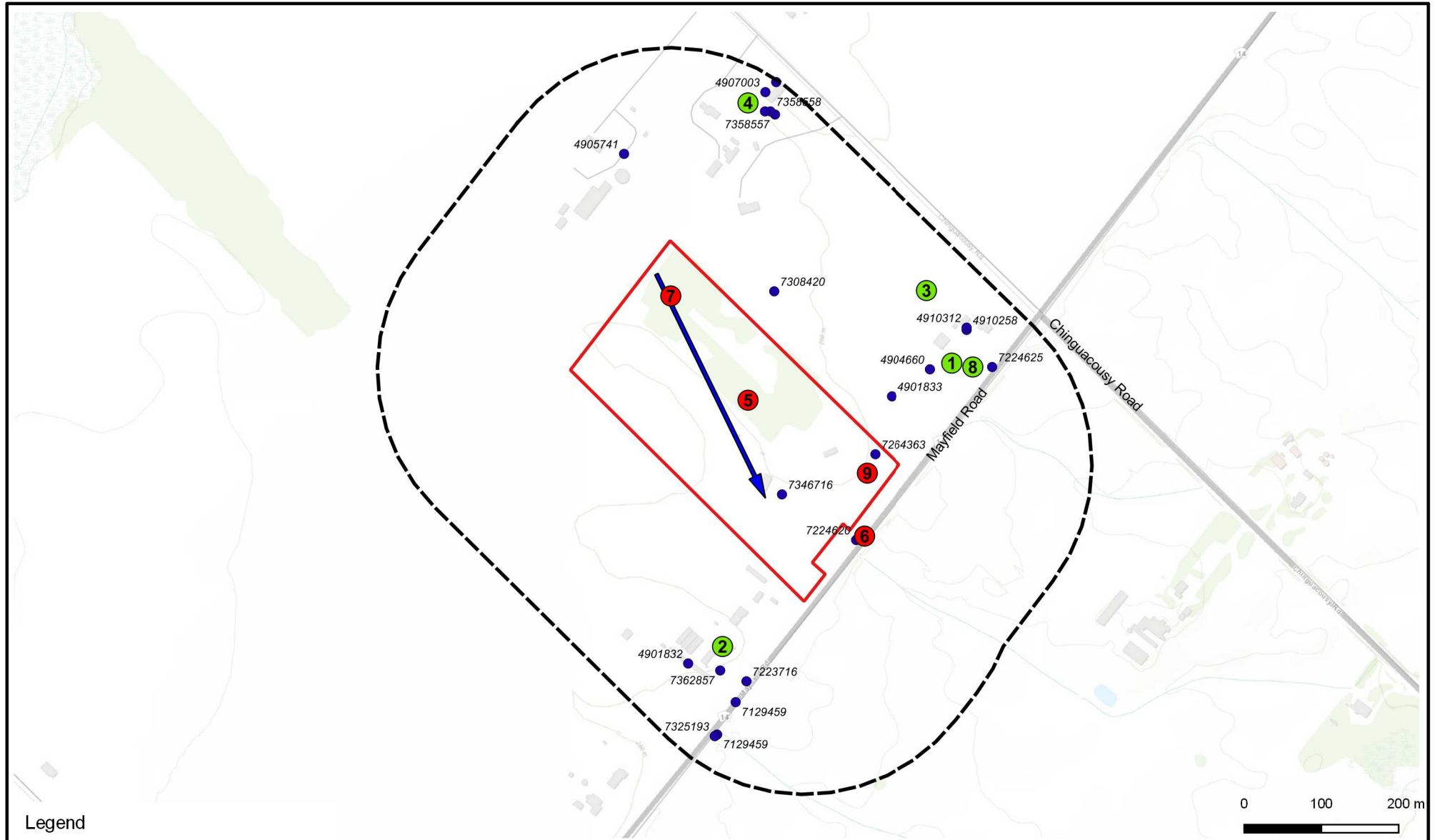
Title: **PHASE ONE STUDY AREA**



Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: September 2024
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Rev: 0	Scale: As Shown	Project No.: 24-197-100	Figure No.: 3
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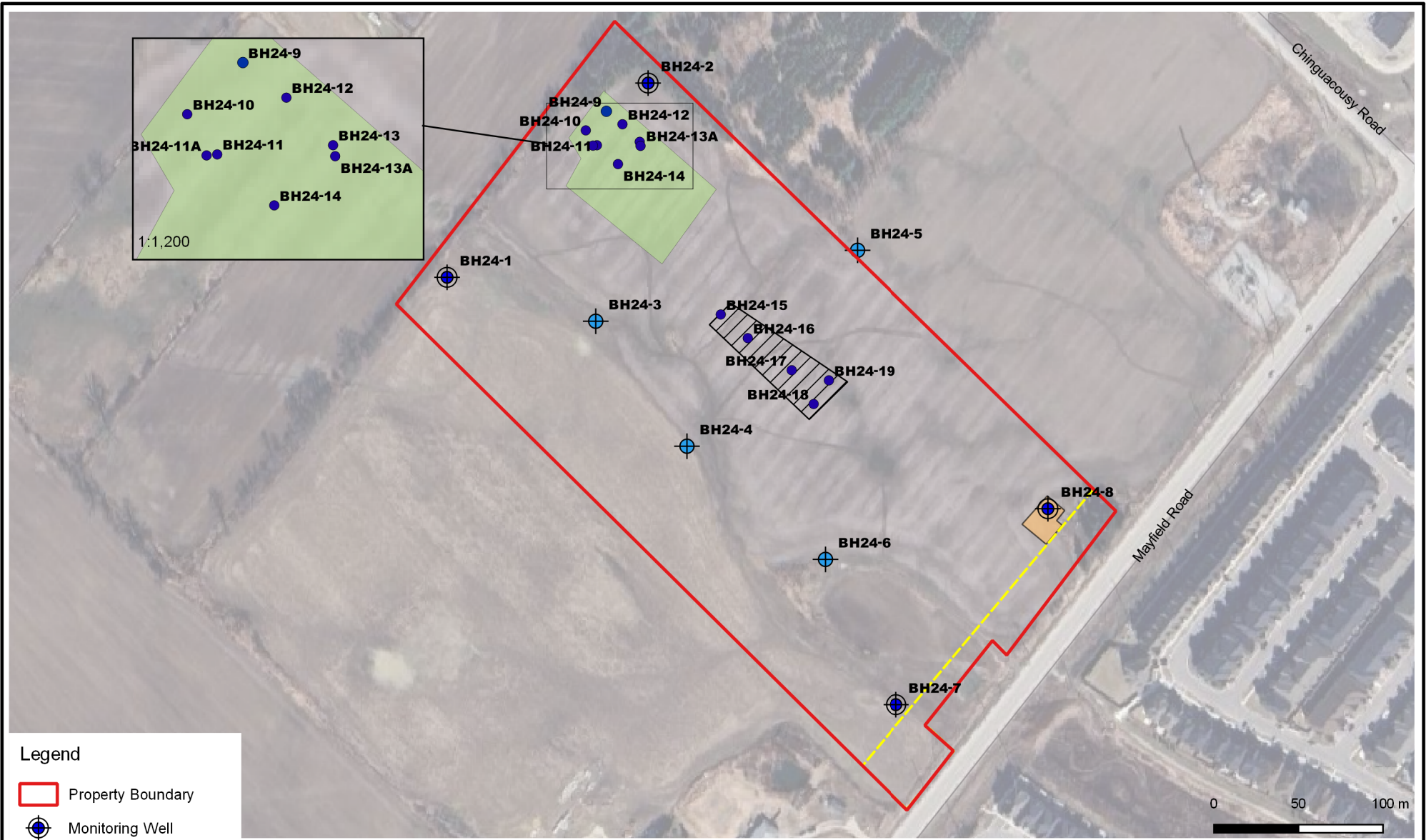
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Legend

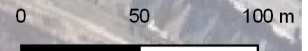
- Property Boundary
- 250m Buffer
- PCAs not contributing to APEC
- PCAs contributing to APEC
- Registered Water Well (MECP WWR)
- ➔ Inferred Groundwater Flow Direction



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	Title: PCAs WITHIN PHASE ONE STUDY AREA			
Client: ARGO MAYFIELD WEST IV LIMITED	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P	Date: September 2024
	Rev: 0	Scale: As Shown	Project No.: 24-197-100	Figure No.: 4
Image/Map Source: Esri Topo Image				



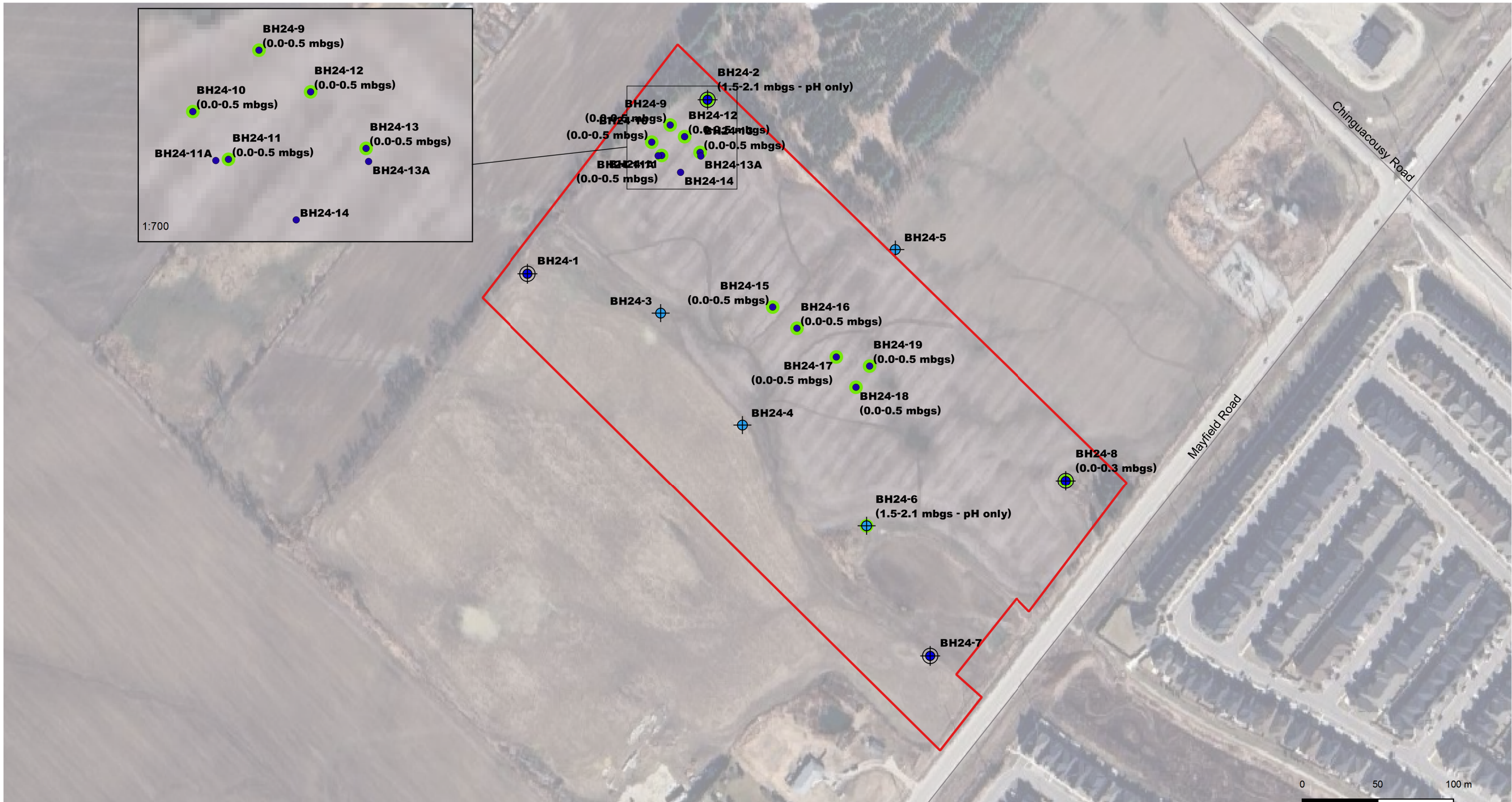
Legend

- Property Boundary
- Monitoring Well
- Borehole
- Hand Augered Borehole
- APEC-1
- APEC-2
- APEC-3
- APEC-4



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	Title: BOREHOLE LOCATION PLAN WITH APECs			
Client:	Size:	Approved By:	Drawn By:	Date:
ARGO MAYFIELD WEST IV LIMITED	8.5 x 11	R.F	P.P/S.Y	September 2024
	Rev:	Scale:	Project No.:	Figure No.:
	0	As Shown	24-197-100	5
Image/Map Source: Google Satellite Image				

J:\GIS\2024 PROJECTS\24-197-100 - 1850 & 1890 Mayfield Road, Caledon, ON\1-QGIS\Phase Two\Figure 6 - Soil Characterization - Metals.qgs Sep-20 10:24



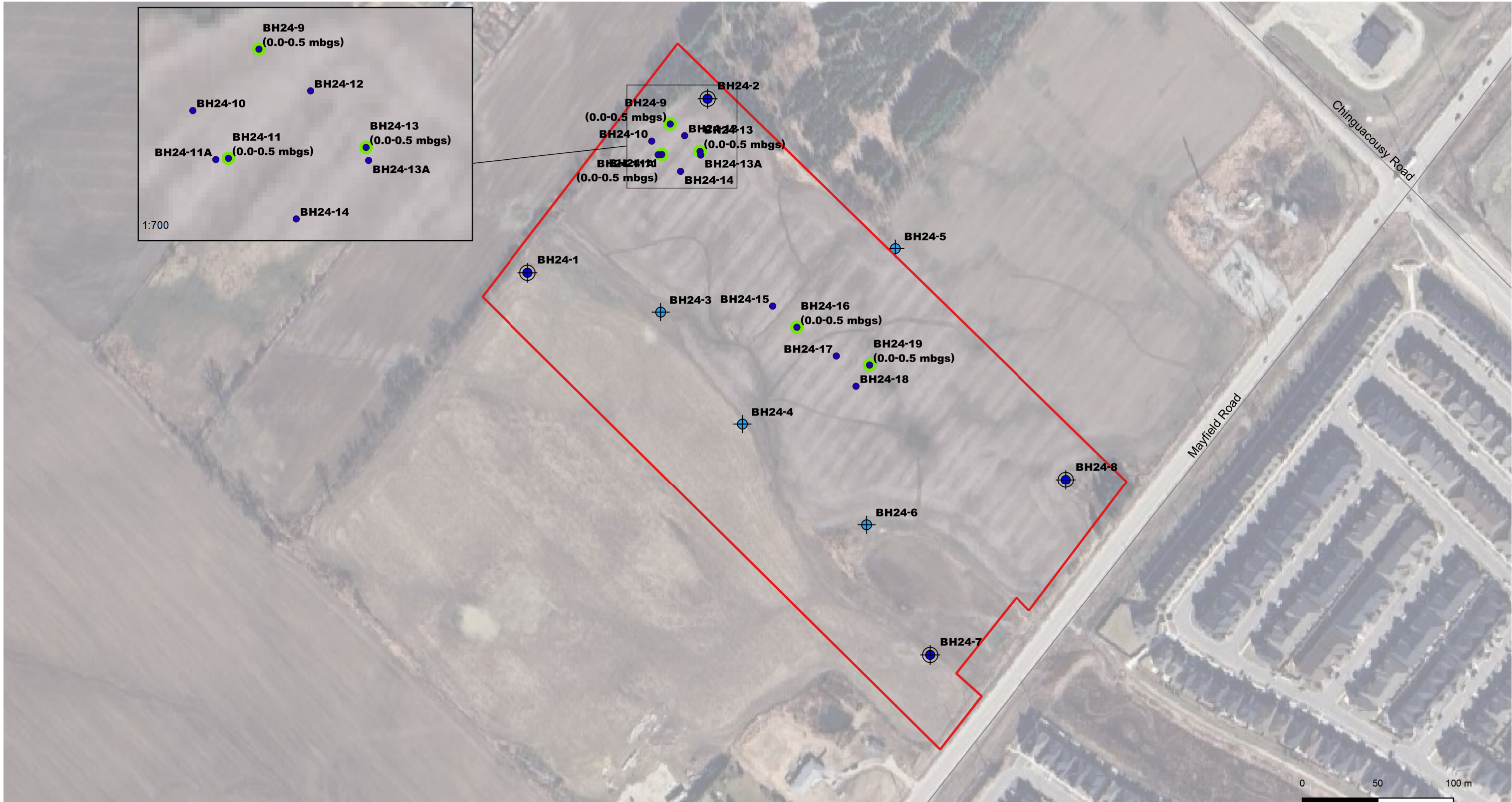
- Legend**
- Property Boundary
 - Hand Augered Borehole
 - ⊕ Monitoring Well
 - ⊕ Borehole
 - Sample Met Applicable Standards

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Client: **ARGO MAYFIELD WEST IV LIMITED**

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 1850 & 1890 Mayfield Road, Caledon, ON		N 	
Title: SOIL CHARACTERIZATION – METALS AND METALS FORMING HYDRIDES			
Size: 11x17	Approved By: R.F	Drawn By: S.Y	Date: September 2024
Rev: 0	Scale: As Shown	Project No.: 24-197-100	Figure No.: 6
Image/Map Source: Google Satellite Image			

J:\GIS\2024 PROJECTS\24-197-100 - 1850 & 1890 Mayfield Road, Caledon, ON\1-QGIS\Phase Two\Figure 7 - Soil Characterization - PHC.qgs Sep-10 09:28



- Legend**
- Property Boundary
 - Hand Augered Borehole
 - ⊕ Monitoring Well
 - ⊕ Borehole
 - Sample Met Applicable Standards

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Client: **ARGO MAYFIELD WEST IV LIMITED**

Project: **PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 1850 & 1890 Mayfield Road, Caledon, ON**

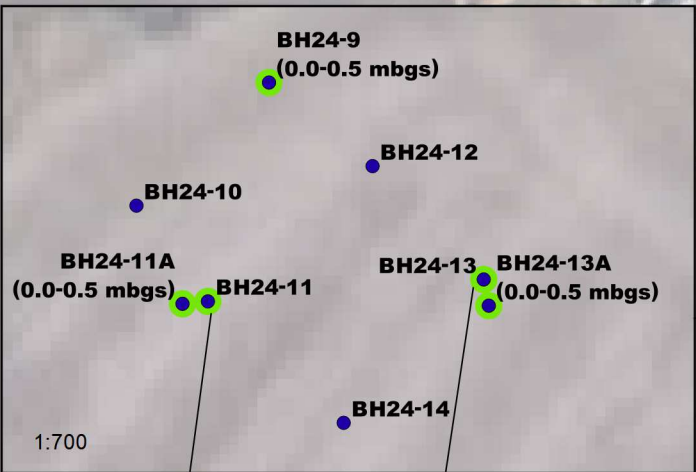
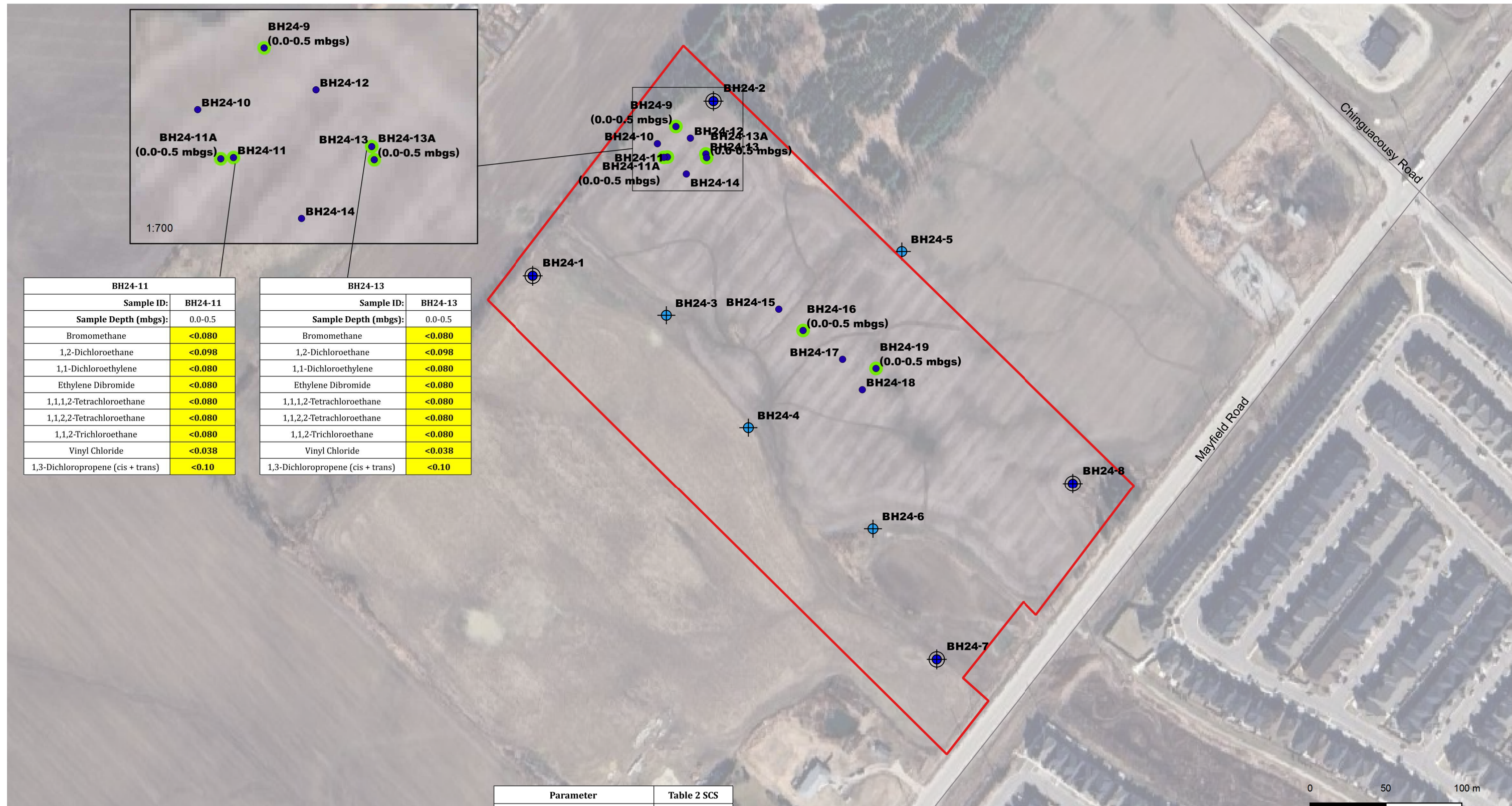
Title: **SOIL CHARACTERIZATION – PHCs AND BTEX**

Size: 11x17
 Approved By: R.F. Drawn By: S.Y. Date: September 2024

Rev: 0
 Scale: As Shown Project No.: 24-197-100 Figure No.: **7**

Image/Map Source: Google Satellite Image







BH24-11	
Sample ID:	BH24-11
Sample Depth (mbgs):	0.0-0.5
Bromomethane	<0.080
1,2-Dichloroethane	<0.098
1,1-Dichloroethylene	<0.080
Ethylene Dibromide	<0.080
1,1,1,2-Tetrachloroethane	<0.080
1,1,2,2-Tetrachloroethane	<0.080
1,1,2-Trichloroethane	<0.080
Vinyl Chloride	<0.038
1,3-Dichloropropene (cis + trans)	<0.10

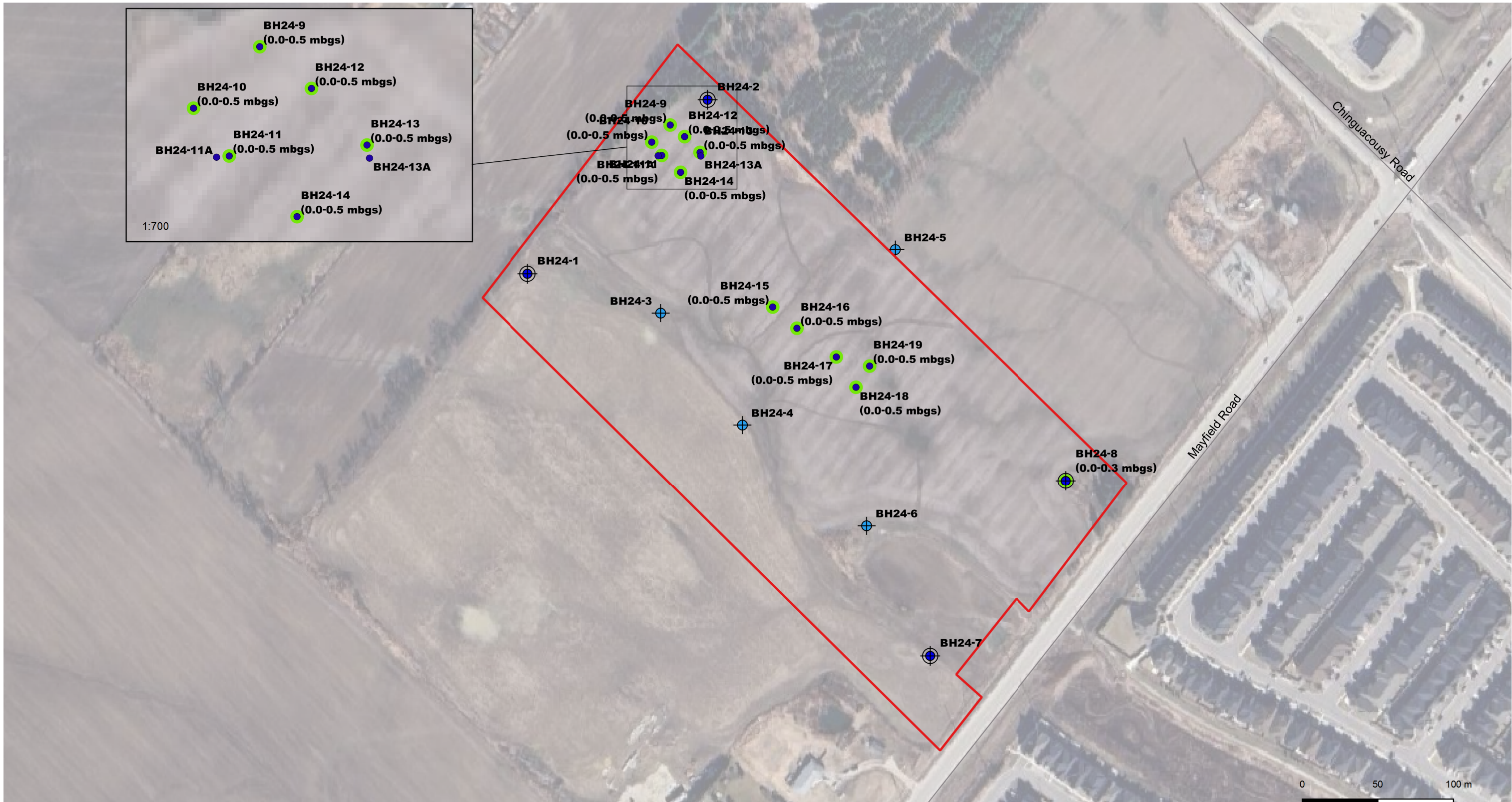
BH24-13	
Sample ID:	BH24-13
Sample Depth (mbgs):	0.0-0.5
Bromomethane	<0.080
1,2-Dichloroethane	<0.098
1,1-Dichloroethylene	<0.080
Ethylene Dibromide	<0.080
1,1,1,2-Tetrachloroethane	<0.080
1,1,2,2-Tetrachloroethane	<0.080
1,1,2-Trichloroethane	<0.080
Vinyl Chloride	<0.038
1,3-Dichloropropene (cis + trans)	<0.10

Parameter	Table 2 SCS
Bromomethane	0.05
1,2-Dichloroethane	0.05
1,1-Dichloroethylene	0.05
Ethylene Dibromide	0.05
1,1,1,2-Tetrachloroethane	0.058
1,1,2,2-Tetrachloroethane	0.05
1,1,2-Trichloroethane	0.05
Vinyl Chloride	0.022
1,3-Dichloropropene (cis + trans)	0.081
#	Detection Limit Exceeds Applicable Standards

- Legend**
- Property Boundary
 - Hand Augered Borehole
 - ⊕ Monitoring Well
 - ⊕ Borehole
 - Sample Met Applicable Standards

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	Title: SOIL CHARACTERIZATION - VOCs			
Client: ARGO MAYFIELD WEST IV LIMITED	Size: 11x17	Approved By: R.F	Drawn By: S.Y	Date: September 2024
	Rev: 0	Scale: As Shown	Project No.: 24-197-100	Figure No.: 8
Image/Map Source: Google Satellite Image				

J:\GIS\2024 PROJECTS\24-197-100 - 1850 & 1890 Mayfield Road, Caledon, ON\1-QGIS\Phase Two\Figure 9 - Soil Characterization - PAHs.qgs Sep-20 08:45



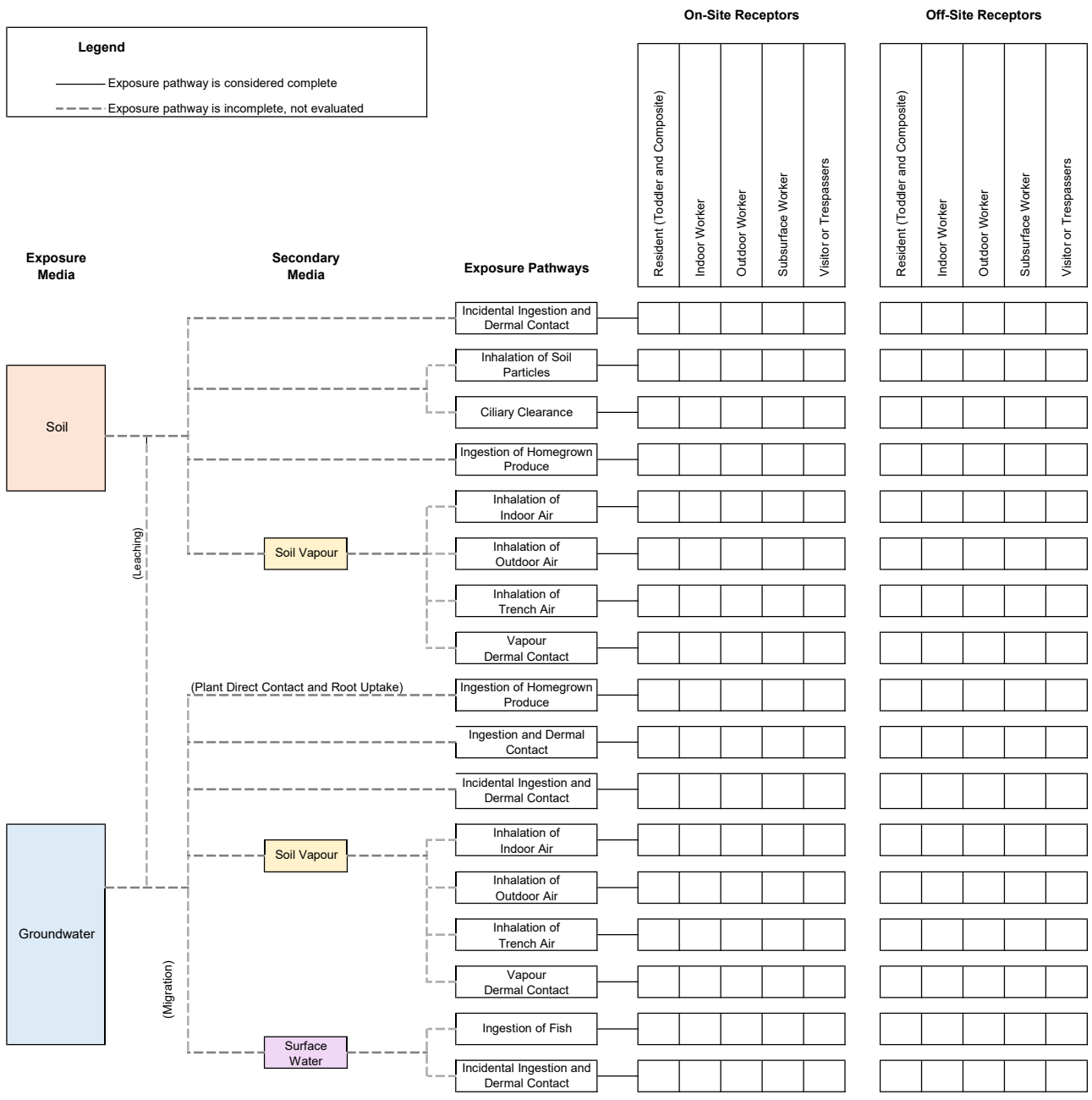
- Legend**
- Property Boundary
 - Hand Augered Borehole
 - ⊕ Monitoring Well
 - ⊕ Borehole
 - Sample Met Applicable Standards

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Client: **ARGO MAYFIELD WEST IV LIMITED**

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 1850 & 1890 Mayfield Road, Caledon, ON			
Title: SOIL CHARACTERIZATION – PAHs			
Size: 11x17	Approved By: R.F	Drawn By: S.Y	Date: September 2024
Rev: 0	Scale: As Shown	Project No.: 24-197-100	Figure No.: 9
Image/Map Source: Google Satellite Image			

Legend
 — Exposure pathway is considered complete
 - - - Exposure pathway is incomplete, not evaluated



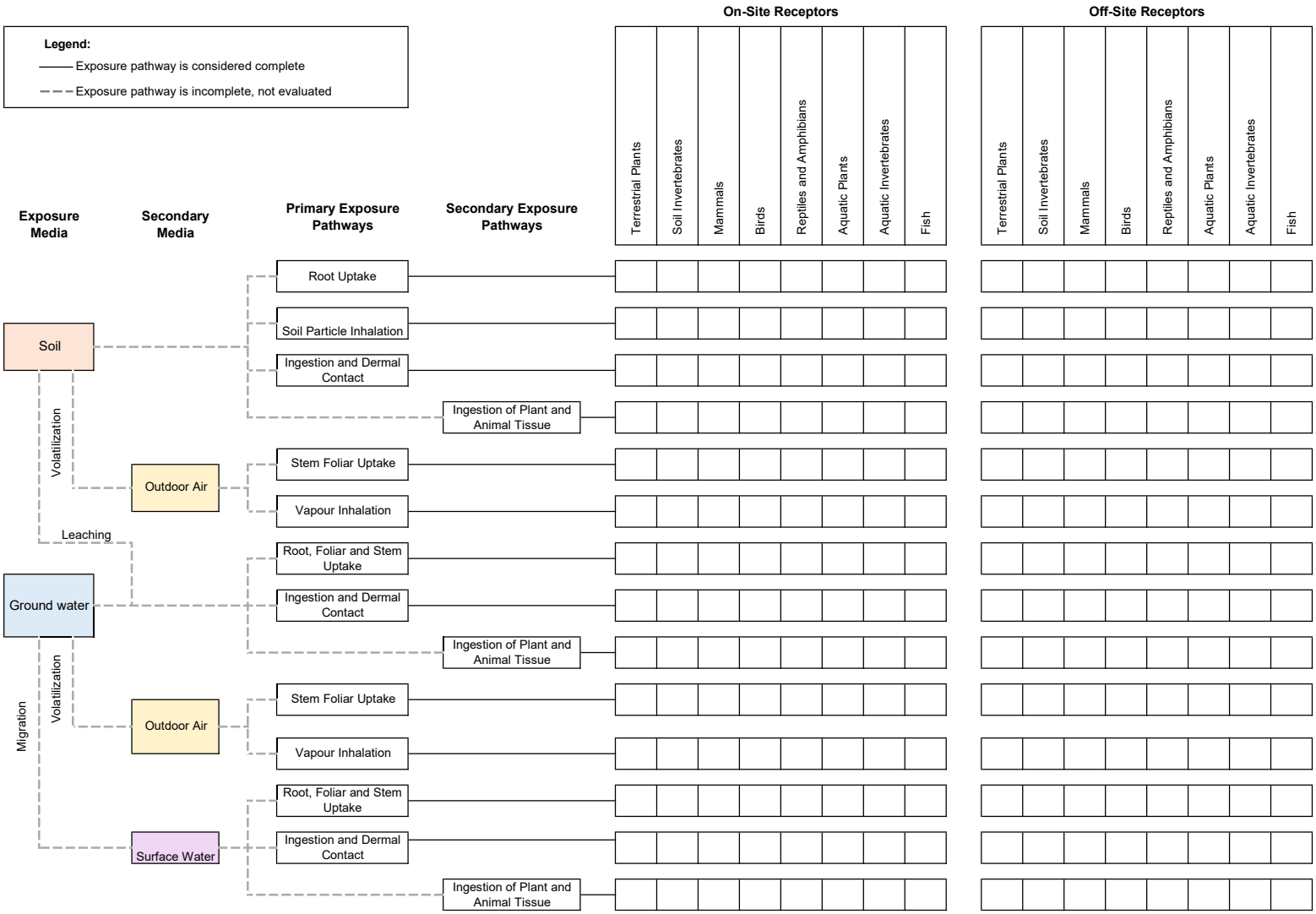
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Project: Phase Two Environmental Site Assessment
 1850 and 1890 Mayfield Road, Caledon, Ontario

Title: Contaminant Transportation Diagram

Client:	Size: 8x11	Approved by: RF	Drawn by: MB	Date: Aug-24
ARGO Mayfield West IV Limited	Rev:	Scale: N.T.S.	Project No: 24-197-100	Figure No: 10A

Legend:
 — Exposure pathway is considered complete
 - - - Exposure pathway is incomplete, not evaluated



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	Title: Contaminant Transportation Diagram			
Client: ARGO Mayfield West IV Limited	Size: 8x11	Approved by: RF	Drawn by: MB	Date: Aug-24
	Rev.	Scale: N.T.S.	Project No: 24-197-100	Figure No: 10B



Tables



Table 1: Summary of Monitoring Well Installation and Groundwater Data

Well ID		BH24-1	BH24-2	BH24-7	BH24-8	
Installed By:		DS	DS	DS	DS	
Installation Date:		8-Jul-24	8-Jul-24	9-Jul-24	8-Jul-24	
Well Status:		Active	Active	Active	Active	
EastUTM17		592375.631	592494.084	592641.997	592731.015	
NorthUTM17		4840709.464	4840824.488	4840456.585	4840572.224	
Inner Diameter	(mm)	50	50	50	50	
Surface Elevation	(masl)	258.30	259.50	255.90	257.50	
Bottom of Concrete Seal/Top of Bentonite Seal	mbgs	0.30	0.30	0.30	0.30	
	masl	258.00	259.20	255.60	257.20	
Bottom of Bentonite Seal/Top of Sand Pack	mbgs	2.60	2.60	2.60	2.60	
	masl	255.70	256.90	253.30	254.90	
Top of Well Screen	mbgs	3.00	3.00	3.00	3.00	
	masl	255.30	256.50	252.90	254.50	
Well Screen Length	m	3.10	3.10	3.10	3.10	
Bottom of Well Screen	mbgs	6.10	6.10	6.10	6.10	
	masl	252.20	253.40	249.80	251.40	
GW Monitoring						
23-Jul-24	Depth to GW	mbgs	0.70	5.00	0.50	1.30
	GW Elevation	masl	257.60	254.50	255.40	256.20

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



Table 2: Summary of Soil Samples Submitted for Chemical Analysis

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
BH24-2	SS3	1.5-2.1	Clayey Silt	pH	Not Applicable
BH24-6	SS3	1.5-2.1	Sandy Silt	pH	
BH24-8	BH24-8	0.0-0.3	Fill - Clayey Silt	Metals and ORPs, PAHs	APEC-4
BH24-9	BH24-9	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PHCs, VOCs, PAHs	APEC-3
BH24-10	BH24-10	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	
BH24-11	BH24-11	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PHCs, VOCs, PAHs	
BH24-11A	BH24-11A	0.0-0.5	Fill - Clayey Silt	VOCs	
BH24-12	BH24-12	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	
BH24-13	BH24-13	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PHCs, VOCs, PAHs	
BH24-13A	BH24-13A	0.0-0.5	Fill - Clayey Silt	VOCs	
BH24-15	BH24-15	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	APEC-1
	DUP-1	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	
BH24-16	BH24-16	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PHCs, VOCs, PAHs	
BH24-17	BH24-17	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	
BH24-18	BH24-18	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PAHs	
BH24-19	BH24-19	0.0-0.5	Fill - Clayey Silt	Metals and ORPs, PHCs, VOCs, PAHs	
				Metals and ORPs, PHCs, VOCs, PAHs	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 3: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1	Fill material stockpiled on the central portion of the Site in the aerials.	PHCs, BTEX, Metals, As, Sb, Se, B-, HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	BH24-15	BH24-15	Metals and ORPs, PAHs
					DUP-1	Metals and ORPs, PAHs
				BH24-16	BH24-16	Metals and ORPs, PHCs, VOCs, PAHs
				BH24-17	BH24-17	Metals and ORPs, PAHs
				BH24-18	BH24-18	Metals and ORPs, PAHs
APEC-3	Fill material placed on the north portion of the Site in the aerials.	PHCs, BTEX, Metals, As, Sb, Se, B-, HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil	BH24-9	BH24-9	Metals and ORPs, PHCs, VOCs, PAHs
				BH24-10	BH24-10	Metals and ORPs, PAHs
				BH24-11	BH24-11	Metals and ORPs, PHCs, VOCs, PAHs
				BH24-11A	BH24-11A	VOCs
				BH24-12	BH24-12	Metals and ORPs, PAHs
				BH24-13	BH24-13	Metals and ORPs, PHCs, VOCs, PAHs
				BH24-13A	BH24-13A	VOCs
APEC-4	Fill material was encountered in the vicinity of Former House 2.	Metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, low or high pH, PAHs	Soil	BH24-8	BH24-8	Metals and ORPs, PAHs
General Subsurface Investigation		pH	Soil	BH24-2	SS3	pH
				BH24-6	SS3	pH

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



Table 4: Summary of Metals and ORPs in Soil

Parameter	MECP Table 2 SCS	BH24-8	BH24-9	BH24-10	BH24-11	BH24-12	BH24-13	BH24-15	
Date of Collection		12-Sep-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24
Date Reported		19-Sep-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.3	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C4S5575	C4M0907	C4M0907	C4M0907	C4M0907	C4M0907	C4M0907	C4M0907
Antimony	7.5	0.43	<0.20	<0.20	0.2	<0.20	<0.20	<0.20	
Arsenic	18	5.9	3.7	3.3	3.3	3.1	4.2	4	
Barium	390	72	52	56	71	54	62	54	
Beryllium	4	0.49	0.54	0.6	0.62	0.62	0.62	0.52	
Boron	120	8.2	<5.0	<5.0	5.2	<5.0	<5.0	<5.0	
Boron (Hot Water Soluble)	1.5	0.61	0.54	0.39	0.61	0.41	0.46	0.28	
Cadmium	1.2	0.4	0.14	0.17	0.23	0.19	0.17	<0.10	
Chromium	160	18	17	18	19	19	19	23	
Chromium VI	10	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18	
Cobalt	22	6.2	7.5	7.4	7.5	7.5	8.6	10	
Copper	180	28	16	14	17	12	21	12	
Cyanide	0.051	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Lead	120	94	13	12	13	12	12	13	
Mercury	1.8	0.13	-	<0.050	-	0.051	-	-	
Molybdenum	6.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Nickel	130	15	16	16	16	16	19	15	
Selenium	2.4	0.54	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Silver	25	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Thallium	1	0.11	0.11	0.12	0.12	0.13	0.12	0.14	
Uranium	23	1	0.52	0.77	0.76	0.65	0.51	0.45	
Vanadium	86	27	28	29	30	29	30	38	
Zinc	340	110	55	54	66	72	59	73	
Electrical Conductivity (2:1)	0.7	0.31	0.19	0.1	0.19	0.1	0.2	0.079	
Sodium Adsorption Ratio	5	0.2	0.24	0.35	0.24	0.31	0.22	0.37	
pH, 2:1 CaCl2 Extraction	NV	7.4	6.61	6.09	6.51	6.1	6.54	6.17	

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



Table 4: Summary of Metals and ORPs in Soil

Parameter	MECP Table 2 SCS	DUP-1 (BH24-15)	BH24-16	BH24-17	BH24-18	BH24-19	BH24-2 SS3	BH24-6 SS3
Date of Collection		18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	25-Jul-24	25-Jul-24
Date Reported		15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	2-Aug-24	2-Aug-24
Sampling Depth (mbgs)		0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	1.5-2.1	1.5-2.1
Analytical Report Reference No.		C4M0907	C4M0907	C4M0907	C4M0907	C4M0907	C4N0189	C4N0189
Antimony	7.5	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Arsenic	18	4.1	3.6	5.2	3	3.8	-	-
Barium	390	62	55	51	59	62	-	-
Beryllium	4	0.62	0.56	0.73	0.6	0.59	-	-
Boron	120	<5.0	<5.0	<5.0	<5.0	<5.0	-	-
Boron (Hot Water Soluble)	1.5	0.21	0.16	0.52	0.4	-	-	-
Cadmium	1.2	0.11	0.15	<0.10	0.16	0.16	-	-
Chromium	160	22	18	22	19	18	-	-
Chromium VI	10	<0.18	<0.18	<0.18	<0.18	<0.18	-	-
Cobalt	22	9.7	7.3	13	7.5	7.8	-	-
Copper	180	13	17	30	15	17	-	-
Cyanide	0.051	<0.01	<0.01	<0.01	<0.01	<0.01	-	-
Lead	120	13	10	14	14	14	-	-
Mercury	1.8	<0.050	<0.050	<0.050	-	-	-	-
Molybdenum	6.9	<0.50	<0.50	<0.50	<0.50	<0.50	-	-
Nickel	130	20	23	16	16	16	-	-
Selenium	2.4	<0.50	<0.50	<0.50	<0.50	<0.50	-	-
Silver	25	<0.20	<0.20	<0.20	<0.20	<0.20	-	-
Thallium	1	0.14	0.14	0.13	0.12	0.12	-	-
Uranium	23	0.48	0.43	0.56	0.64	0.44	-	-
Vanadium	86	38	31	33	30	30	-	-
Zinc	340	72	56	55	66	60	-	-
Electrical Conductivity (2:1)	0.7	0.088	0.087	0.072	0.12	0.13	-	-
Sodium Adsorption Ratio	5	0.36	0.35	0.43	0.29	0.29	-	-
pH, 2:1 CaCl2 Extraction	NV	6.61	6.41	6.53	6.36	6.25	7.89	7.78

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section



Table 5: Summary of PHCs in Soil

Parameter	MECP Table 2 SCS	BH24-9	BH24-11	BH24-13	BH24-16	BH24-19
Date of Collection		18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24
Date Reported		15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C4M0907	C4M0907	C4M0907	C4M0907	C4M0907
Benzene	0.17	<0.020	<0.040	<0.020	<0.020	<0.0060
Ethylbenzene	1.6	<0.020	<0.040	<0.020	<0.020	<0.010
Toluene	6	<0.020	<0.040	<0.020	<0.020	<0.020
Xylenes (Total)	25	<0.040	<0.080	<0.040	<0.040	<0.020
F1 (C6-C10) -BTEX	65	<10	<20	<10	<10	<10
F2 (C10-C16)	150	<10	<10	<10	<10	10
F3 (C16-C34)	1300	<50	65	<50	<50	88
F4 (C34-C50)	5600	<50	<50	<50	<50	<50

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 6: Summary of VOCs in Soil

Parameter	MECP Table 2 SCS	BH24-9	BH24-11	BH24-11A	BH24-13
Date of Collection		18-Jul-24	18-Jul-24	12-Aug-24	18-Jul-24
Date Reported		15-Aug-24	15-Aug-24	16-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C4M0907	C4M0907	C408451	C4M0907
Acetone	28	<0.49	<0.98	<0.49	<0.98
Benzene	0.17	<0.0060	<0.012	<0.0060	<0.012
Bromodichloromethane	1.9	<0.040	<0.080	<0.040	<0.080
Bromoform	0.26	<0.040	<0.080	<0.040	<0.080
Bromomethane	0.05	<0.040	<0.080	<0.040	<0.080
Carbon Tetrachloride	0.12	<0.040	<0.080	<0.040	<0.080
Chlorobenzene	2.7	<0.040	<0.080	<0.040	<0.080
Chloroform	0.17	<0.040	<0.080	<0.040	<0.080
Dibromochloromethane	2.9	<0.040	<0.080	<0.040	<0.080
1,2-Dichlorobenzene	1.7	<0.040	<0.080	<0.040	<0.080
1,3-Dichlorobenzene	6	<0.040	<0.080	<0.040	<0.080
1,4-Dichlorobenzene	0.097	<0.040	<0.080	<0.040	<0.080
1,1-Dichloroethane	0.6	<0.040	<0.080	<0.040	<0.080
1,2-Dichloroethane	0.05	<0.049	<0.098	<0.049	<0.098
1,1-Dichloroethylene	0.05	<0.040	<0.080	<0.040	<0.080
Cis-1,2-Dichloroethylene	2.5	<0.040	<0.080	<0.040	<0.080
Trans-1,2-Dichloroethylene	0.75	<0.040	<0.080	<0.040	<0.080
1,2-Dichloropropane	0.085	<0.040	<0.080	<0.040	<0.080
Ethylbenzene	1.6	<0.010	<0.020	<0.010	<0.020
Ethylene Dibromide	0.05	<0.040	<0.080	<0.040	<0.080
Methyl Ethyl Ketone	44	<0.40	<0.80	<0.40	<0.80
Methylene Chloride	0.96	<0.049	0.76	<0.049	<0.098
Methyl Isobutyl Ketone	4.3	<0.40	<0.80	<0.40	<0.80
Methyl-t-Butyl Ether	1.4	<0.040	<0.080	<0.040	<0.080
Styrene	2.2	<0.040	<0.080	<0.040	<0.080
1,1,1,2-Tetrachloroethane	0.05	<0.040	<0.080	<0.040	<0.080
1,1,2,2-Tetrachloroethane	0.05	<0.040	<0.080	<0.040	<0.080
Toluene	6	<0.020	<0.040	<0.020	<0.040
Tetrachloroethylene	2.3	<0.040	<0.080	<0.040	<0.080
1,1,1-Trichloroethane	3.4	<0.040	<0.080	<0.040	<0.080
1,1,2-Trichloroethane	0.05	<0.040	<0.080	<0.040	<0.080
Trichloroethylene	0.52	<0.010	<0.020	<0.010	<0.020
Vinyl Chloride	0.022	<0.019	<0.038	<0.019	<0.038
Total Xylenes	25	<0.020	<0.040	<0.020	<0.040
Dichlorodifluoromethane	25	<0.040	<0.080	<0.040	<0.080
Hexane(n)	34	<0.040	0.094	<0.040	<0.080
Trichlorofluoromethane	5.8	<0.040	<0.080	<0.040	<0.080
1,3-Dichloropropene (cis + trans)	0.081	<0.050	<0.10	<0.050	<0.10

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 6: Summary of VOCs in Soil

Parameter	MECP Table 2 SCS	BH24-13A	BH24-16	BH24-19
Date of Collection		12-Aug-24	18-Jul-24	18-Jul-24
Date Reported		16-Aug-24	15-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C408451	C4M0907	C4M0907
Acetone	28	<0.49	<0.49	<0.49
Benzene	0.17	<0.0060	<0.0060	<0.0060
Bromodichloromethane	1.9	<0.040	<0.040	<0.040
Bromoform	0.26	<0.040	<0.040	<0.040
Bromomethane	0.05	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.12	<0.040	<0.040	<0.040
Chlorobenzene	2.7	<0.040	<0.040	<0.040
Chloroform	0.17	<0.040	<0.040	<0.040
Dibromochloromethane	2.9	<0.040	<0.040	<0.040
1,2-Dichlorobenzene	1.7	<0.040	<0.040	<0.040
1,3-Dichlorobenzene	6	<0.040	<0.040	<0.040
1,4-Dichlorobenzene	0.097	<0.040	<0.040	<0.040
1,1-Dichloroethane	0.6	<0.040	<0.040	<0.040
1,2-Dichloroethane	0.05	<0.049	<0.049	<0.049
1,1-Dichloroethylene	0.05	<0.040	<0.040	<0.040
Cis-1,2-Dichloroethylene	2.5	<0.040	<0.040	<0.040
Trans-1,2-Dichloroethylene	0.75	<0.040	<0.040	<0.040
1,2-Dichloropropane	0.085	<0.040	<0.040	<0.040
Ethylbenzene	1.6	<0.010	<0.010	<0.010
Ethylene Dibromide	0.05	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	44	<0.40	<0.40	<0.40
Methylene Chloride	0.96	<0.049	0.48	<0.049
Methyl Isobutyl Ketone	4.3	<0.40	<0.40	<0.40
Methyl-t-Butyl Ether	1.4	<0.040	<0.040	<0.040
Styrene	2.2	<0.040	<0.040	<0.040
1,1,1,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040
1,1,2,2-Tetrachloroethane	0.05	<0.040	<0.040	<0.040
Toluene	6	<0.020	<0.020	<0.020
Tetrachloroethylene	2.3	<0.040	<0.040	<0.040
1,1,1-Trichloroethane	3.4	<0.040	<0.040	<0.040
1,1,2-Trichloroethane	0.05	<0.040	<0.040	<0.040
Trichloroethylene	0.52	<0.010	<0.010	<0.010
Vinyl Chloride	0.022	<0.019	<0.019	<0.019
Total Xylenes	25	<0.020	<0.020	<0.020
Dichlorodifluoromethane	25	<0.040	<0.040	<0.040
Hexane(n)	34	<0.040	0.078	<0.040
Trichlorofluoromethane	5.8	<0.040	<0.040	<0.040
1,3-Dichloropropene (cis + trans)	0.081	<0.050	<0.050	<0.050

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 7: Summary of PAHs in Soil

Parameter	MECP Table 2 SCS	BH24-8	BH24-9	BH24-10	BH24-11	BH24-12	BH24-13
Date of Collection		12-Sep-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24
Date Reported		19-Sep-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.3	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C4S5575	C4M0907	C4M0907	C4M0907	C4M0907	C4M0907
Methylnaphthalene, 2-(1-)	3.4	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Acenaphthene	29	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.17	0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	0.74	0.016	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benz(a)anthracene	0.63	0.046	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	0.3	0.062	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(b+)fluoranthene	0.78	0.077	0.0066	0.0057	0.0089	0.0088	0.0054
Benzo(g,h,i)perylene	7.8	0.062	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(k)fluoranthene	0.78	0.028	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	7.8	0.041	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	0.1	0.016	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	0.092	0.0065	<0.0050	0.009	0.0071	0.005
Fluorene	69	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	0.48	0.057	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Naphthalene	0.75	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	7.8	0.046	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Pyrene	78	0.069	0.03	<0.0050	0.019	0.0066	<0.0050

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 7: Summary of PAHs in Soil

Parameter	MECP Table 2 SCS	BH24-15	DUP-1 (BH24-15)	BH24-16	BH24-17	BH24-18	BH24-19
Date of Collection		18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24	18-Jul-24
Date Reported		15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24	15-Aug-24
Sampling Depth (mbgs)		0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5	0.0-0.5
Analytical Report Reference No.		C4M0907	C4M0907	C4M0907	C4M0907	C4M0907	C4M0907
Methylnaphthalene, 2-(1-)	3.4	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071
Acenaphthene	29	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.17	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Anthracene	0.74	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benz(a)anthracene	0.63	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Benzo(a)pyrene	0.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0054
Benzo(b+)fluoranthene	0.78	0.0056	<0.0050	0.0073	<0.0050	0.0059	0.011
Benzo(g,h,i)perylene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0056
Benzo(k)fluoranthene	0.78	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Chrysene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Dibenz(a,h)anthracene	0.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	<0.0050	<0.0050	0.0076	<0.0050	0.0064	0.01
Fluorene	69	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	0.48	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0051
Naphthalene	0.75	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Phenanthrene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Pyrene	78	<0.0050	<0.0050	0.0066	<0.0050	0.0059	0.0087

For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Table 8: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	7.5	0.2	BH24-11
	Arsenic	18	5.2	BH24-17
	Barium	390	71	BH24-11
	Beryllium	4	0.73	BH24-17
	Boron	120	5.2	BH24-11
	Boron (Hot Water Soluble)	1.5	0.61	BH24-11
	Cadmium	1.2	0.23	BH24-11
	Chromium	160	23	BH24-15
	Chromium VI	10	<0.18	All Samples
	Cobalt	22	13	BH24-17
	Copper	180	30	BH24-17
	Cyanide	0.051	<0.01	All Samples
	Lead	120	14	BH24-17
	Mercury	1.8	0.051	BH24-12
	Molybdenum	6.9	<0.50	All Samples
	Nickel	130	23	BH24-16
	Selenium	2.4	<0.50	All Samples
	Silver	25	<0.20	All Samples
	Thallium	1	0.14	BH24-15
	Uranium	23	0.77	BH24-10
Vanadium	86	38	BH24-15	
Zinc	340	73	BH24-15	
Electrical Conductivity (2:1)	0.7	0.2	BH24-13	
Sodium Adsorption Ratio	5	0.43	BH24-17	
pH, 2:1 CaCl2 Extraction	NV	7.89	BH24-2 SS3	
PHCs	Benzene	0.17	<0.020	All Samples
	Ethylbenzene	1.6	<0.020	All Samples
	Toluene	6	<0.020	All Samples
	Xylenes (Total)	25	<0.040	All Samples
	F1 (C6-C10) -BTEX	65	<10	All Samples
	F2 (C10-C16)	150	10	BH24-19
	F3 (C16-C34)	1300	88	BH24-19
	F4 (C34-C50)	5600	<50	All Samples
	Acetone	28	<0.49	All Samples
	Benzene	0.17	<0.0060	All Samples
	Bromodichloromethane	1.9	<0.040	All Samples
	Bromoform	0.26	<0.040	All Samples
	Bromomethane	0.05	<0.040	All Samples
	Carbon Tetrachloride	0.12	<0.040	All Samples
	Chlorobenzene	2.7	<0.040	All Samples
	Chloroform	0.17	<0.040	All Samples
	Dibromochloromethane	2.9	<0.040	All Samples
	1,2-Dichlorobenzene	1.7	<0.040	All Samples
	1,3-Dichlorobenzene	6	<0.040	All Samples



Table 8: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
VOCs	1,4-Dichlorobenzene	0.097	<0.040	All Samples
	1,1-Dichloroethane	0.6	<0.040	All Samples
	1,2-Dichloroethane	0.05	<0.049	All Samples
	1,1-Dichloroethylene	0.05	<0.040	All Samples
	Cis-1,2-Dichloroethylene	2.5	<0.040	All Samples
	Trans-1,2-Dichloroethylene	0.75	<0.040	All Samples
	1,2-Dichloropropane	0.085	<0.040	All Samples
	Ethylbenzene	1.6	<0.010	All Samples
	Ethylene Dibromide	0.05	<0.040	All Samples
	Methyl Ethyl Ketone	44	<0.40	All Samples
	Methylene Chloride	0.96	0.76	BH24-11
	Methyl Isobutyl Ketone	4.3	<0.40	All Samples
	Methyl-t-Butyl Ether	1.4	<0.040	All Samples
	Styrene	2.2	<0.040	All Samples
	1,1,1,2-Tetrachloroethane	0.05	<0.040	All Samples
	1,1,1,2,2-Tetrachloroethane	0.05	<0.040	All Samples
	Toluene	6	<0.020	All Samples
	Tetrachloroethylene	2.3	<0.040	All Samples
	1,1,1-Trichloroethane	3.4	<0.040	All Samples
	1,1,2-Trichloroethane	0.05	<0.040	All Samples
	Trichloroethylene	0.52	<0.010	All Samples
	Vinyl Chloride	0.022	<0.019	All Samples
	Total Xylenes	25	<0.020	All Samples
	Dichlorodifluoromethane	25	<0.040	All Samples
	Hexane(n)	34	0.094	BH24-11
	Trichlorofluoromethane	5.8	<0.040	All Samples
1,3-Dichloropropene (cis + trans)	0.081	<0.050	All Samples	
PAHs	Methylnaphthalene, 2-(1-)	3.4	<0.0071	All Samples
	Acenaphthene	29	<0.0050	All Samples
	Acenaphthylene	0.17	<0.0050	All Samples
	Anthracene	0.74	<0.0050	All Samples
	Benz(a)anthracene	0.63	<0.0050	All Samples
	Benzo(a)pyrene	0.3	0.0054	BH24-19
	Benzo(b+j)fluoranthene	0.78	0.011	BH24-19
	Benzo(g,h,i)perylene	7.8	0.0056	BH24-19
	Benzo(k)fluoranthene	0.78	<0.0050	All Samples
	Chrysene	7.8	<0.0050	All Samples
	Dibenz(a,h)anthracene	0.1	<0.0050	All Samples
	Fluoranthene	0.69	0.01	BH24-19
	Fluorene	69	<0.0050	All Samples
	Indeno(1,2,3-cd)pyrene	0.48	0.0051	BH24-19
	Naphthalene	0.75	<0.0050	All Samples
	Phenanthrene	7.8	<0.0050	All Samples
Pyrene	78	0.03	BH24-9	



Table 8: Summary of Maximum Concentrations in Soil

Parameter	Standard	Maximum Concentration	Location
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For Table Notes see **Notes for Soil and Groundwater Summary Tables**, included at the end of this Section.



Notes for Soil and Groundwater Summary Tables

	For soil and groundwater analytical results, concentration exceeds the applicable Standards.
	For soil and groundwater analytical results, laboratory detection limits exceed the applicable Standards.
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
masl	Meters above sea level
MECP Table 2 SCS	Generic Condition Standards in a Potable Groundwater Condition for Use for Residential/Parkland/ Institutional Use and Medium-Fine Textured soils as contained in Table 2 of the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", published by the MECP on April 15, 2011.
mbgs	Meters below ground surface
NM	Not Monitored
NA	Not Available
OCPs	Organochlorine Pesticides
PAH	Polyaromatic Hydrocarbon
PHC	Petroleum Hydrocarbon
Units	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
Units	Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated



Appendix A



A Survey Plan was not provided during the investigation.



Appendix B

Project Number: 24-197-100

2024-07-19

**ARGO Mayfield West IV Limited
4900 Palladium Way, Unit 105
Burlington, Ontario
L7M 0W7**

Attention: Mr. Tony Vella,

**RE: Sampling and Analysis Plan
Phase Two Environmental Site Assessment
1850 & 1890 Mayfield Road, Caledon, Ontario**

1. Introduction

DS Consultants Ltd. (DS) is pleased to present the Sampling and Analysis Plan (SAP) for the proposed Phase Two Environmental Site Assessment of 1850 & 1890 Mayfield Road, Caledon, Ontario (the Site). The purpose of the proposed Phase Two ESA program is to assess the current subsurface environmental conditions in support of the proposed redevelopment of the Site.

The Phase Two ESA will involve intrusive investigation in the areas determined in the Site visit to be Areas of Potential Environmental Concern (APECs), and will be completed in general accordance with O.Reg 153/04. Based on the findings of the field and laboratory analyses, a Phase Two ESA report will be prepared.

2. Background

Based on the Phase One Environmental Site Assessment completed by DS, the Site is a 8.566-hectare (21.17 acres) parcel of land which is currently vacant. The first developed use of the Site is interpreted to be Residential based on the findings of the Phase One ESA. A total of three (3) potentially contaminating activities were identified on the Phase One Property or on neighbouring properties within the Phase One Study Area which are considered to be contributing to Areas of Potential Environmental Concern (APECs) on the Phase Two Property. A summary of the APECs identified, the potential contaminants of concern, and the media potentially impacted is presented in Table 2-1 below:

Table 2-1: Areas of Potential Environmental Concern

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Central portion of Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-5	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
				(VI), Hg, low or high pH, PAHs	
APEC-2	South portion of Property	#N/S – Seasonal De-icing Activities	Off Site PCA-6	EC, SAR	Soil
				Na, Cl-	Groundwater
APEC-3	Northeast portion of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-7	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4	Southeast portion of the Site	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-9	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil

Notes:

1. PHC = Petroleum Hydrocarbons in the F1-F4 fraction ranges
2. VOCs = Volatile Organic Compounds
3. PAHs = Polycyclic Aromatic Hydrocarbons
4. N/S = Not specified in O.Reg. 153/04

3. Site Investigation Program

The proposed field investigation will involve the advancement of boreholes. A total of 11 borehole locations have been identified. Details regarding the proposed boreholes are provided in the following table:

Table 3-1: Summary of Proposed Investigation Program

ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Purpose
BH24-9	1 m	N	N/A	Environmental Purposes
BH24-10	1 m	N	N/A	Environmental Purposes
BH24-11	1 m	N	N/A	Environmental Purposes
BH24-12	1 m	N	N/A	Environmental Purposes
BH24-13	1 m	N	N/A	Environmental Purposes
BH24-14	1 m	N	N/A	Environmental Purposes
BH24-15	1 m	N	N/A	Environmental Purposes
BH24-16	1 m	N	N/A	Environmental Purposes
BH24-17	1 m	N	N/A	Environmental Purposes
BH24-18	1 m	N	N/A	Environmental Purposes
BH24-19	1 m	N	N/A	Environmental Purposes

The Phase Two ESA involves the following principal tasks:

- Advancement of boreholes as specified in Table 3-1. The proposed boreholes will be used to facilitate the collection of representative soil samples, and to provide information regarding the Site-specific geological conditions;
- All soil samples recovered during the proposed drilling activities will be field screened for visual and olfactory evidence of deleterious impacts and for the presence of petroleum hydrocarbon (PHC) and volatile organic compound (VOC) derived vapours using either a combustible gas detector (CGD) calibrated to hexane or a photo-ionization detector (PID) calibrated to isobutylene or equivalent;
- Submit soil samples from the newly advanced boreholes as follows:

Table 3-2: Summary of proposed soil chemical analyses

Borehole	Sample Depth (mbgs)	Lab Analysis	Purpose
BH24-8	0-0.3	M&I, PAHs	Assess APEC-4 Soil Quality
BH24-9	0-1 m	M&I, PAHs, PHCs, VOCs	Assess APEC-3 Soil Quality
BH24-10	0-1 m	M&I, PAHs	
BH24-11	0-1 m	M&I, PAHs, PHCs, VOCs	
BH24-12	0-1 m	M&I, PAHs	
BH24-13	0-1 m	M&I, PAHs, PHCs, VOCs	
BH24-14	0-1 m	M&I, PAHs	
BH24-15	0-1 m	M&I, PAHs	Assess APEC-1 Soil Quality
BH24-16	0-1 m	M&I, PAHs, PHCs, VOCs	
BH24-17	0-1 m	M&I, PAHs	
BH24-18	0-1 m	M&I, PAHs	
BH24-19	0-1 m	M&I, PAHs, PHCs, VOCs	
BH24-2 SS3	1.5-2.1 m	pH	Assess subsurface pH
BH24-6 SS3	1.5-2.1 m	pH	

A summary of the proposed soil analytical program is presented in the following table:

Table Error! No text of specified style in document.-3: Summary of Soil and Groundwater Analytical Program

Soil
<ul style="list-style-type: none"> • 11 Samples for analysis of metals and inorganics • 5 Samples for analysis of PHCs • 5 Samples for analysis of VOCs • 11 Samples for analysis of PAHs • 2 Subsurface soil samples for pH analysis • 2 Duplicate samples

- A Quality Assurance and Quality Control (QAQC) program will be implemented, involving the collection and analysis of duplicate soil and groundwater samples and trip blanks at the frequency specified under O.Reg. 153/04 (as amended);
- A Phase Two ESA Report will be prepared upon receipt of all analytical results and groundwater monitoring data. The Phase Two ESA Report will be completed in general

It is assumed that the site can be accessed at our convenience, during regular business hours. Prior notice will be sent to the client and site representative.

It is noted that if the Phase Two ESA reveals parameter concentrations greater than the applicable standards set out in *Ontario Regulation 153/04*, then additional work (i.e., supplemental delineation, additional drilling, sampling, analysis, and/or site remediation activities) will be deemed necessary prior to RSC filing, should an RSC be required. The costs for any additional work, if necessary, are beyond the current scope of work.

The SAP was created based on the request to complete a Phase Two ESA in support of the proposed redevelopment of the Site. The SAP was compiled to collect data to provide information on soil quality in each APEC.

Additional delineation may be required following the implementation of this SAP to meet the requirements of O.Reg. 153/04 which requires delineation of all areas where concentrations are above the applicable SCS such as in the following conditions:

- Unexpected contamination not previously discovered, or not related to identified APECs, is discovered which will require further delineation to identify source(s); and
- If the sampling results indicate that the soil impacts are deeper than initially expected.

4. Closure

We trust that this Sampling and Analysis Plan meets the objectives of the Client. If further assistance is required on this matter please do not hesitate to contact the undersigned.

Yours Very Truly,

DS Consultants Ltd.



Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Vice President – Environmental
647-234-5131
rfioravanti@dsconsultants.ca



Appendix C

PROJECT: Geotechnical Investigation
 CLIENT: Argo Development Corporation
 PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4840709.5 E 592375.6

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Jul-08-2024
 REF. NO.: 24-197-100
 ENCL NO.: 2

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT w	LIQUID LIMIT W _L	POCKET PEN. (C _u) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40							60
0.0 258.3	TOPSOIL: 250mm															
0.3 258.1	CLAYEY SILT: trace sand, trace gravel, trace rootlets, brown, moist, firm (weathered/disturbed)		1	SS	5											
0.8 257.5	SILTY CLAY TILL: trace to some sand, trace gravel, brown to grey, moist, stiff to very stiff		2	SS	18											
			3	SS	21											
			4	SS	25											
			5	SS	16											2 16 48 34
	grey below 3.7m															
253.4 4.9	CLAYEY SILT TO SILT: trace to some sand, trace gravel, grey, very moist to moist, stiff to hard		6	SS	8											
			7	SS	54											4 12 69 15
251.6 6.7	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgf): July 23, 2024 0.7															

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GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical Investigation
 CLIENT: Argo Development Corporation
 PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4840824.5 E 592494.1

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Jul-08-2024
 REF. NO.: 24-197-100
 ENCL NO.: 3

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20	40							60
0.0	TOPSOIL: 250mm															
259.3	CLAYEY SILT: trace sand, trace gravel, trace rootlets, brown, moist, firm (weathered/disturbed)		1	SS	6											
0.3																
258.7	CLAYEY SILT TO SILTY CLAY TILL: trace to some sand, trace gravel, brown to grey, moist, stiff to very stiff		2	SS	16											
0.8																
1																
2	grey below 3.1m		3	SS	19											
2																
3																
4	grey below 3.1m		4	SS	27											
4																
5																
6	grey below 3.1m		5	SS	17											
6																
7	grey below 3.1m		6	SS	9											
7																
6.7	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbg): July 23, 2024 5.0		7	SS	11											
252.8																

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W. L. 254.5 m
Jul 23, 2024

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical Investigation
 CLIENT: Argo Development Corporation
 PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4840683.7 E 592463.6

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Jul-09-2024
 REF. NO.: 24-197-100
 ENCL NO.: 4

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)		
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)							W _p	W
257.8	TOPSOIL: 280mm															
0.0																
257.5	FILL: clayey silt, trace sand, trace gravel, trace rootlets, grey to brown, moist, firm		1	SS	4											
0.3																
1			2	SS	6											verify ss2
256.3	CLAYEY SILT TO SILTY CLAY TILL: trace to some sand, trace gravel, brown, moist, very stiff		3	SS	17											
1.5																
255.8	SILTY SAND: some clay, trace gravel, trace cobble, brown, moist to very moist, compact															
2.0																
255.3	CLAYEY SILT TO SILTY CLAY TILL: trace to some sand, trace gravel, brown to grey, moist, stiff to very stiff		4	SS	24											wet spoon
2.5																
3			5	SS	21											wet spoon
4																
6	grey below 4.6m															
6																
251.5	SANDY SILT TILL: trace clay, trace gravel, grey, moist, compact		7	SS	29											
6.3																
251.1	END OF BOREHOLE: Notes: 1) Water encountered at 2.3m during drilling.															
6.7																

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GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical Investigation
 CLIENT: Argo Development Corporation
 PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4840725.7 E 592618.2

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Jul-08-2024
 REF. NO.: 24-197-100
 ENCL NO.: 6

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)								
258.2	TOPSOIL: 250mm															
0.0 258.0	CLAYEY SILT: trace sand, trace gravel, trace rootlets, brown, moist, firm (weathered/disturbed)	[Strata Plot]	1	SS	5											
0.3																
257.4	CLAYEY SILT TO SILTY CLAY TILL: trace to some sand, trace gravel, brown to grey, moist, stiff to very stiff	[Strata Plot]	2	SS	19											
0.8																
1																
2																
3																
4	grey below 3.1m	[Strata Plot]	3	SS	24											
5																
6																
7	brownish grey at 6.1m	[Strata Plot]	4	SS	16											
8																
9		[Strata Plot]	5	SS	9											
10																
11		[Strata Plot]	6	SS	9											
12																
13		[Strata Plot]	7	SS	13											
14																
15	END OF BOREHOLE: Notes: 1) Borehole was open without water upon completion.	[Strata Plot]														
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GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ ●=3% Strain at Failure

PROJECT: Geotechnical Investigation	DRILLING DATA
CLIENT: Argo Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON	Diameter: 150mm
DATUM: Geodetic	Date: Jul-09-2024
BH LOCATION: See Drawing 1 N 4840542.5 E 592599.4	REF. NO.: 24-197-100
	ENCL NO.: 7

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT				POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			SHEAR STRENGTH (kPa)							W _p	W	W _L		
257.3	TOPSOIL: 250mm																		
0.0 257.1	FILL: clayey silt, trace sand, trace gravel, trace rootlets, brown, moist, firm	[Cross-hatched pattern]	1	SS	7														
0.3			2	SS	6														
1	SANDY SILT TILL: trace to some clay, trace gravel, trace cobble, brown, very moist, compact (verify)	[Dotted pattern]	3	SS	16														
255.8			4	SS	27														
1.5			5	SS	34														
254.5	CLAYEY SILT TO SILTY CLAY TILL: some sand, trace gravel, trace cobble, brown to grey, moist, stiff to hard grey below 3.1m	[Diagonal lines pattern]	6	SS	12														
2.8			7	SS	23														
250.6	END OF BOREHOLE: Notes: 1) Water encountered at 1.5m during drilling.																		

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<p>PROJECT: Geotechnical Investigation CLIENT: Argo Development Corporation PROJECT LOCATION: 1850 and 1890 Mayfield Rd., Caledon, ON DATUM: Geodetic BH LOCATION: See Drawing 1 N 4840572.2 E 592731</p>	<p>DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Jul-08-2024</p> <p style="text-align: right;">REF. NO.: 24-197-100 ENCL NO.: 9</p>
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	DYNAMIC CONE PENETRATION RESISTANCE PLOT		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			20 40 60 80 100	20 40 60 80 100							
257.5	FILL: silty sand, trace brick pieces, trace gravel, dark brown, moist, loose	[Cross-hatched pattern]	1	SS	5		257									
256.7			2	SS	14		257									
256.0	FILL: clayey silt, trace sand, trace gravel, trace brick pieces, brown, moist, stiff CLAYEY SILT TO SILTY CLAY TILL: some sand, trace gravel, occasional cobble, brown to grey, moist, stiff to hard	[Diagonal lines pattern]	3	SS	19		W. L. 256.2 m Jul 23, 2024	255								
1.5			4	SS	24		255									
1			5	SS	34		254									
0.8	grey below 3.1m	[Dotted pattern]	6	SS	13			253							4 25 46 25	
0			7	SS	12		252									
250.8	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbg): July 23, 2024 1.3	[Horizontal lines pattern]					251									
6.7																

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GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ = 3% Strain at Failure



Appendix D



Your Project #: 24-197-100
 Site Location: 1850 MAYFIELD RD, CALEDON
 Your C.O.C. #: N/A

Attention: Megan Bender

DS Consultants Limited
 6221 Highway 7, Unit 16
 Vaughan, ON
 CANADA L4H 0K8

Report Date: 2024/08/16
 Report #: R8279424
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C408451

Received: 2024/08/12, 14:54

Sample Matrix: Soil
 # Samples Received: 2

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
1,3-Dichloropropene Sum	2	N/A	2024/08/16		EPA 8260C m
Moisture	2	N/A	2024/08/14	CAM SOP-00445	Carter 2nd ed 70.2 m
Volatile Organic Compounds in Soil	2	N/A	2024/08/15	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.



Your Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Your C.O.C. #: N/A

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2024/08/16
Report #: R8279424
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C408451

Received: 2024/08/12, 14:54

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: ashton.gibson@bureauveritas.com
Phone# (905)817-5765

=====
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.



BUREAU
VERITAS

Bureau Veritas Job #: C408451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

O.REG 153 VOCS BY HS (SOIL)

Bureau Veritas ID			ZZF747	ZZF748		
Sampling Date			2024/08/12	2024/08/12		
COC Number			N/A	N/A		
	UNITS	Criteria	BH24-11 A	BH24-13 A	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	9572410
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.49	<0.49	0.49	9576942
Benzene	ug/g	0.21	<0.0060	<0.0060	0.0060	9576942
Bromodichloromethane	ug/g	1.5	<0.040	<0.040	0.040	9576942
Bromoform	ug/g	0.27	<0.040	<0.040	0.040	9576942
Bromomethane	ug/g	0.05	<0.040	<0.040	0.040	9576942
Carbon Tetrachloride	ug/g	0.05	<0.040	<0.040	0.040	9576942
Chlorobenzene	ug/g	2.4	<0.040	<0.040	0.040	9576942
Chloroform	ug/g	0.05	<0.040	<0.040	0.040	9576942
Dibromochloromethane	ug/g	2.3	<0.040	<0.040	0.040	9576942
1,2-Dichlorobenzene	ug/g	1.2	<0.040	<0.040	0.040	9576942
1,3-Dichlorobenzene	ug/g	4.8	<0.040	<0.040	0.040	9576942
1,4-Dichlorobenzene	ug/g	0.083	<0.040	<0.040	0.040	9576942
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.040	<0.040	0.040	9576942
1,1-Dichloroethane	ug/g	0.47	<0.040	<0.040	0.040	9576942
1,2-Dichloroethane	ug/g	0.05	<0.049	<0.049	0.049	9576942
1,1-Dichloroethylene	ug/g	0.05	<0.040	<0.040	0.040	9576942
cis-1,2-Dichloroethylene	ug/g	1.9	<0.040	<0.040	0.040	9576942
trans-1,2-Dichloroethylene	ug/g	0.084	<0.040	<0.040	0.040	9576942
1,2-Dichloropropane	ug/g	0.05	<0.040	<0.040	0.040	9576942
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	9576942
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	9576942
Ethylbenzene	ug/g	1.1	<0.010	<0.010	0.010	9576942
Ethylene Dibromide	ug/g	0.05	<0.040	<0.040	0.040	9576942
Hexane	ug/g	2.8	<0.040	<0.040	0.040	9576942
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.049	<0.049	0.049	9576942
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.40	<0.40	0.40	9576942
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition						
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil						



O.REG 153 VOCS BY HS (SOIL)

Bureau Veritas ID			ZZF747	ZZF748		
Sampling Date			2024/08/12	2024/08/12		
COC Number			N/A	N/A		
	UNITS	Criteria	BH24-11 A	BH24-13 A	RDL	QC Batch
Methyl Isobutyl Ketone	ug/g	1.7	<0.40	<0.40	0.40	9576942
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.040	<0.040	0.040	9576942
Styrene	ug/g	0.7	<0.040	<0.040	0.040	9576942
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.040	<0.040	0.040	9576942
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.040	<0.040	0.040	9576942
Tetrachloroethylene	ug/g	0.28	<0.040	<0.040	0.040	9576942
Toluene	ug/g	2.3	<0.020	<0.020	0.020	9576942
1,1,1-Trichloroethane	ug/g	0.38	<0.040	<0.040	0.040	9576942
1,1,2-Trichloroethane	ug/g	0.05	<0.040	<0.040	0.040	9576942
Trichloroethylene	ug/g	0.061	<0.010	<0.010	0.010	9576942
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.040	<0.040	0.040	9576942
Vinyl Chloride	ug/g	0.02	<0.019	<0.019	0.019	9576942
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	9576942
o-Xylene	ug/g	-	<0.020	<0.020	0.020	9576942
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	9576942
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	-	96	96		9576942
D10-o-Xylene	%	-	94	97		9576942
D4-1,2-Dichloroethane	%	-	111	111		9576942
D8-Toluene	%	-	92	92		9576942
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition						
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil						



BUREAU
VERITAS

Bureau Veritas Job #: C4O8451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZZF747	ZZF747	ZZF748		
Sampling Date		2024/08/12	2024/08/12	2024/08/12		
COC Number		N/A	N/A	N/A		
	UNITS	BH24-11 A	BH24-11 A Lab-Dup	BH24-13 A	RDL	QC Batch
Inorganics						
Moisture	%	23	23	19	1.0	9574804
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate						



BUREAU
VERITAS

Bureau Veritas Job #: C4O8451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

TEST SUMMARY

Bureau Veritas ID: ZZF747
Sample ID: BH24-11 A
Matrix: Soil

Collected: 2024/08/12
Shipped:
Received: 2024/08/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9572410	N/A	2024/08/16	Automated Statchk
Moisture	BAL	9574804	N/A	2024/08/14	Frances Gacayan
Volatile Organic Compounds in Soil	GC/MS	9576942	N/A	2024/08/15	Gabriella Morrone

Bureau Veritas ID: ZZF747 Dup
Sample ID: BH24-11 A
Matrix: Soil

Collected: 2024/08/12
Shipped:
Received: 2024/08/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9574804	N/A	2024/08/14	Frances Gacayan

Bureau Veritas ID: ZZF748
Sample ID: BH24-13 A
Matrix: Soil

Collected: 2024/08/12
Shipped:
Received: 2024/08/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9572410	N/A	2024/08/16	Automated Statchk
Moisture	BAL	9574804	N/A	2024/08/14	Frances Gacayan
Volatile Organic Compounds in Soil	GC/MS	9576942	N/A	2024/08/15	Gabriella Morrone



BUREAU
VERITAS

Bureau Veritas Job #: C4O8451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

GENERAL COMMENTS

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

Package 1	12.7°C
-----------	--------

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C408451

Report Date: 2024/08/16

QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD RD, CALEDON

Sampler Initials: AS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9576942	4-Bromofluorobenzene	2024/08/15	100	60 - 140	101	60 - 140	97	%		
9576942	D10-o-Xylene	2024/08/15	107	60 - 130	89	60 - 130	95	%		
9576942	D4-1,2-Dichloroethane	2024/08/15	102	60 - 140	106	60 - 140	103	%		
9576942	D8-Toluene	2024/08/15	103	60 - 140	101	60 - 140	94	%		
9574804	Moisture	2024/08/14							0	20
9576942	1,1,1,2-Tetrachloroethane	2024/08/15	127	60 - 140	116	60 - 130	<0.040	ug/g	NC	50
9576942	1,1,1-Trichloroethane	2024/08/15	111	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9576942	1,1,2,2-Tetrachloroethane	2024/08/15	102	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9576942	1,1,2-Trichloroethane	2024/08/15	116	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9576942	1,1-Dichloroethane	2024/08/15	112	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9576942	1,1-Dichloroethylene	2024/08/15	121	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9576942	1,2-Dichlorobenzene	2024/08/15	115	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9576942	1,2-Dichloroethane	2024/08/15	116	60 - 140	112	60 - 130	<0.049	ug/g	NC	50
9576942	1,2-Dichloropropane	2024/08/15	115	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9576942	1,3-Dichlorobenzene	2024/08/15	116	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9576942	1,4-Dichlorobenzene	2024/08/15	117	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9576942	Acetone (2-Propanone)	2024/08/15	120	60 - 140	120	60 - 140	<0.49	ug/g	NC	50
9576942	Benzene	2024/08/15	113	60 - 140	103	60 - 130	<0.0060	ug/g	NC	50
9576942	Bromodichloromethane	2024/08/15	107	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9576942	Bromoform	2024/08/15	106	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9576942	Bromomethane	2024/08/15	100	60 - 140	88	60 - 140	<0.040	ug/g	NC	50
9576942	Carbon Tetrachloride	2024/08/15	121	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
9576942	Chlorobenzene	2024/08/15	107	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9576942	Chloroform	2024/08/15	112	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9576942	cis-1,2-Dichloroethylene	2024/08/15	118	60 - 140	110	60 - 130	<0.040	ug/g	NC	50
9576942	cis-1,3-Dichloropropene	2024/08/15	105	60 - 140	102	60 - 130	<0.030	ug/g	NC	50
9576942	Dibromochloromethane	2024/08/15	115	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
9576942	Dichlorodifluoromethane (FREON 12)	2024/08/15	93	60 - 140	78	60 - 140	<0.040	ug/g	NC	50
9576942	Ethylbenzene	2024/08/15	117	60 - 140	103	60 - 130	<0.010	ug/g	NC	50
9576942	Ethylene Dibromide	2024/08/15	112	60 - 140	108	60 - 130	<0.040	ug/g	NC	50
9576942	Hexane	2024/08/15	135	60 - 140	117	60 - 130	<0.040	ug/g	NC	50



BUREAU
VERITAS

Bureau Veritas Job #: C4O8451

Report Date: 2024/08/16

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD RD, CALEDON

Sampler Initials: AS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9576942	Methyl Ethyl Ketone (2-Butanone)	2024/08/15	115	60 - 140	119	60 - 140	<0.40	ug/g	NC	50
9576942	Methyl Isobutyl Ketone	2024/08/15	109	60 - 140	115	60 - 130	<0.40	ug/g	NC	50
9576942	Methyl t-butyl ether (MTBE)	2024/08/15	109	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9576942	Methylene Chloride(Dichloromethane)	2024/08/15	111	60 - 140	103	60 - 130	<0.049	ug/g	NC	50
9576942	o-Xylene	2024/08/15	123	60 - 140	110	60 - 130	<0.020	ug/g	NC	50
9576942	p+m-Xylene	2024/08/15	114	60 - 140	101	60 - 130	<0.020	ug/g	NC	50
9576942	Styrene	2024/08/15	118	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9576942	Tetrachloroethylene	2024/08/15	113	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9576942	Toluene	2024/08/15	114	60 - 140	101	60 - 130	<0.020	ug/g	NC	50
9576942	Total Xylenes	2024/08/15					<0.020	ug/g	NC	50
9576942	trans-1,2-Dichloroethylene	2024/08/15	121	60 - 140	109	60 - 130	<0.040	ug/g	NC	50
9576942	trans-1,3-Dichloropropene	2024/08/15	117	60 - 140	113	60 - 130	<0.040	ug/g	NC	50
9576942	Trichloroethylene	2024/08/15	118	60 - 140	107	60 - 130	<0.010	ug/g	NC	50
9576942	Trichlorofluoromethane (FREON 11)	2024/08/15	117	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9576942	Vinyl Chloride	2024/08/15	111	60 - 140	98	60 - 130	<0.019	ug/g	NC	50

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

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

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

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

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

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



BUREAU
VERITAS

Bureau Veritas Job #: C4O8451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

VALIDATION SIGNATURE PAGE

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

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

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



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CHAIN OF CUSTODY RECORD
ENV COC - 00014v5

Invoice Information		Invoice to (requires report) <input type="checkbox"/>		Report Information (if differs from invoice)										Project Information																	
Company: DS Consultants		Company: DS Consultants		Contact Name: Bindu Goel		Contact Name: Megan Bender		Quotation #:		P.O. #/ AFE#:		Project #:		Site #:																	
Street Address: 6221 Highway 7, Unit 11		Street Address: 125 McGovern Dr. Unit 34		City: Cambridge		City: Cambridge		Project #:		Site #:		Site Location: Caledon		Site Location: Caledon																	
Phone:		Phone: 519-588-9513		Province: ON		Province: ON		Site Location:		Site Location:		Province: ON		Province: ON																	
Email: accounting@dsconsultants.ca		Email: mbender@dsconsultants.ca		Copies: a.sharif@dsconsultants.ca		Copies: a.sharif@dsconsultants.ca		Sampled By: Aisha Sharif		Sampled By: Aisha Sharif		Sampled By: Aisha Sharif		Sampled By: Aisha Sharif																	
REG 153		Regulatory Criteria		1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22										Regular Turnaround Time (TAT)																	
<input type="checkbox"/> Table 1 <input checked="" type="checkbox"/> Table 2 <input type="checkbox"/> Table 3 <input type="checkbox"/> Table		<input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Agri/other		<input type="checkbox"/> Med/Fine <input type="checkbox"/> Coarse <input type="checkbox"/> For RSC		<input type="checkbox"/> CCME <input type="checkbox"/> Reg 558* <input type="checkbox"/> *min 3 day TAT <input type="checkbox"/> MISA <input type="checkbox"/> PWQO		<input type="checkbox"/> Reg 406, Table: <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> Municipality <input type="checkbox"/> Other:		FIELD FILTERED FIELD PRESERVED LAB FILTRATION REQUIRED BTEX/F1 F2 - F4 VOCs Reg 153 metals and inorganics Reg 153 ICPMS metals Reg 153 metals (Hr, Cr, V), ICPMS metals, HWS - B)										<input checked="" type="checkbox"/> 7 Day <input type="checkbox"/> 10 Day Rush Turnaround Time (TAT) Surcharges apply <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 4 Day											
Include Criteria on Certificate of Analysis (check if yes): <input checked="" type="checkbox"/>				SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS																											
Sample Identification (Please print or Type)		Date Sampled			Time (24hr)		Matrix												# OF CONTAINERS SUBMITTED		Date Required: YYYY MM DD										
1 BH24-11 A		2024 08 12			12		Soil												3												
2 BH24-13 A		2024 08 12			12		Soil												3												
3																															
4																															
5																															
6																															
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9																															
10																															
11																															
12																															
*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY																															
LAB USE ONLY		Yes No		Seal present		Seal intact		Cooling media present		LAB USE ONLY		Yes No		Seal present		Seal intact		Cooling media present		LAB USE ONLY		Yes No		Seal present		Seal intact		Cooling media present		Temperature reading by:	
		✓		✓		✓		✓																							
Relinquished by: (Signature/ Print)		Date			Time		Received by: (Signature/ Print)		Date			Time		Special instructions																	
Aisha Sharif		2024 08 12			02 51		Aisha Sharif		2024 08 12			14 54																			



NONT-2024-08-2443



**BUREAU
VERITAS**

Bureau Veritas Job #: C408451
Report Date: 2024/08/16

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD RD, CALEDON
Sampler Initials: AS

**Exceedance Summary Table – Reg153/04 T2-Soil/Res-C
Result Exceedances**

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your Project #: 24-197-100
 Site Location: 1850 & 1890 MAYFIELD RD
 Your C.O.C. #: N/A

Attention: Megan Bender

DS Consultants Limited
 6221 Highway 7, Unit 16
 Vaughan, ON
 CANADA L4H 0K8

Report Date: 2024/09/19
 Report #: R8326705
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4S5575

Received: 2024/09/12, 13:15

Sample Matrix: Soil
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum	1	N/A	2024/09/18	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2024/09/17	2024/09/17	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	1	2024/09/18	2024/09/18	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2024/09/17	2024/09/17	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2024/09/17	2024/09/18	CAM SOP-00436	EPA 3060A/7199 m
Acid Extractable Metals by ICPMS	1	2024/09/17	2024/09/17	CAM SOP-00447	EPA 6020B m
Moisture	1	N/A	2024/09/13	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2024/09/17	2024/09/18	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	1	2024/09/17	2024/09/18	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2024/09/18	CAM SOP-00102	EPA 6010C

Remarks:

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

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

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



Your Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Your C.O.C. #: N/A

Attention: Megan Bender

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2024/09/19
Report #: R8326705
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4S5575

Received: 2024/09/12, 13:15

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

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:

Ashton Gibson, Project Manager
Email: ashton.gibson@bureauveritas.com
Phone# (905)817-5765

=====

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BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID			ACRB14		
Sampling Date			2024/09/12		
COC Number			N/A		
	UNITS	Criteria	BH24-8	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0	0.20		9634633
Inorganics					
Conductivity	mS/cm	0.7	0.31	0.002	9642955
Available (CaCl2) pH	pH	-	7.40		9643590
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	9645209
Chromium (VI)	ug/g	8	<0.18	0.18	9643082
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	0.61	0.050	9643108
Acid Extractable Antimony (Sb)	ug/g	7.5	0.43	0.20	9643200
Acid Extractable Arsenic (As)	ug/g	18	5.9	1.0	9643200
Acid Extractable Barium (Ba)	ug/g	390	72	0.50	9643200
Acid Extractable Beryllium (Be)	ug/g	4	0.49	0.20	9643200
Acid Extractable Boron (B)	ug/g	120	8.2	5.0	9643200
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.40	0.10	9643200
Acid Extractable Chromium (Cr)	ug/g	160	18	1.0	9643200
Acid Extractable Cobalt (Co)	ug/g	22	6.2	0.10	9643200
Acid Extractable Copper (Cu)	ug/g	140	28	0.50	9643200
Acid Extractable Lead (Pb)	ug/g	120	94	1.0	9643200
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	9643200
Acid Extractable Nickel (Ni)	ug/g	100	15	0.50	9643200
Acid Extractable Selenium (Se)	ug/g	2.4	0.54	0.50	9643200
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	9643200
Acid Extractable Thallium (Tl)	ug/g	1	0.11	0.050	9643200
Acid Extractable Uranium (U)	ug/g	23	1.0	0.050	9643200
Acid Extractable Vanadium (V)	ug/g	86	27	5.0	9643200
Acid Extractable Zinc (Zn)	ug/g	340	110	5.0	9643200
Acid Extractable Mercury (Hg)	ug/g	0.27	0.13	0.050	9643200
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

O.REG 153 PAHS (SOIL)

Bureau Veritas ID			ACRB14		
Sampling Date			2024/09/12		
COC Number			N/A		
	UNITS	Criteria	BH24-8	RDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/g	-	<0.0071	0.0071	9643589
Polyaromatic Hydrocarbons					
Acenaphthene	ug/g	7.9	<0.0050	0.0050	9643589
Acenaphthylene	ug/g	0.15	0.017	0.0050	9643589
Anthracene	ug/g	0.67	0.016	0.0050	9643589
Benzo(a)anthracene	ug/g	0.5	0.046	0.0050	9643589
Benzo(a)pyrene	ug/g	0.3	0.062	0.0050	9643589
Benzo(b/j)fluoranthene	ug/g	0.78	0.077	0.0050	9643589
Benzo(g,h,i)perylene	ug/g	6.6	0.062	0.0050	9643589
Benzo(k)fluoranthene	ug/g	0.78	0.028	0.0050	9643589
Chrysene	ug/g	7	0.041	0.0050	9643589
Dibenzo(a,h)anthracene	ug/g	0.1	0.016	0.0050	9643589
Fluoranthene	ug/g	0.69	0.092	0.0050	9643589
Fluorene	ug/g	62	<0.0050	0.0050	9643589
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.057	0.0050	9643589
1-Methylnaphthalene	ug/g	0.99	<0.0050	0.0050	9643589
2-Methylnaphthalene	ug/g	0.99	<0.0050	0.0050	9643589
Naphthalene	ug/g	0.6	<0.0050	0.0050	9643589
Phenanthrene	ug/g	6.2	0.046	0.0050	9643589
Pyrene	ug/g	78	0.069	0.0050	9643589
Surrogate Recovery (%)					
D10-Anthracene	%	-	88		9643589
D14-Terphenyl (FS)	%	-	92		9643589
D8-Acenaphthylene	%	-	81		9643589
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition					
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil					



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ACRB14		
Sampling Date		2024/09/12		
COC Number		N/A		
	UNITS	BH24-8	RDL	QC Batch
Inorganics				
Moisture	%	17	1.0	9637472
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

TEST SUMMARY

Bureau Veritas ID: ACRB14
Sample ID: BH24-8
Matrix: Soil

Collected: 2024/09/12
Shipped:
Received: 2024/09/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9635324	N/A	2024/09/18	Automated Statchk
Hot Water Extractable Boron	ICP	9643108	2024/09/17	2024/09/17	Japneet Gill
Free (WAD) Cyanide	TECH	9645209	2024/09/18	2024/09/18	Prgya Panchal
Conductivity	AT	9642955	2024/09/17	2024/09/17	Nachiketa Gohil
Hexavalent Chromium in Soil by IC	IC/SPEC	9643082	2024/09/17	2024/09/18	Violeta Porcila
Acid Extractable Metals by ICPMS	ICP/MS	9643200	2024/09/17	2024/09/17	Daniel Teclu
Moisture	BAL	9637472	N/A	2024/09/13	Jeremy Apoon
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9643589	2024/09/17	2024/09/18	Jiaxuan (Simon) Xi
pH CaCl2 EXTRACT	AT	9643590	2024/09/17	2024/09/18	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	9634633	N/A	2024/09/18	Automated Statchk



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

GENERAL COMMENTS

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

Package 1	6.7°C
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Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575

Report Date: 2024/09/19

QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 & 1890 MAYFIELD RD

Sampler Initials: AS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9643589	D10-Anthracene	2024/09/18	93	50 - 130	95	50 - 130	103	%		
9643589	D14-Terphenyl (FS)	2024/09/18	99	50 - 130	96	50 - 130	93	%		
9643589	D8-Acenaphthylene	2024/09/18	87	50 - 130	91	50 - 130	86	%		
9637472	Moisture	2024/09/13							7.1	20
9642955	Conductivity	2024/09/17			104	90 - 110	<0.002	mS/cm	3.1	10
9643082	Chromium (VI)	2024/09/18	60 (1)	70 - 130	93	80 - 120	<0.18	ug/g	NC	35
9643108	Hot Water Ext. Boron (B)	2024/09/17	NC	75 - 125	106	75 - 125	<0.050	ug/g	5.8	40
9643200	Acid Extractable Antimony (Sb)	2024/09/17	110	75 - 125	115	80 - 120	<0.20	ug/g	NC	30
9643200	Acid Extractable Arsenic (As)	2024/09/17	102	75 - 125	106	80 - 120	<1.0	ug/g	2.0	30
9643200	Acid Extractable Barium (Ba)	2024/09/17	91	75 - 125	100	80 - 120	<0.50	ug/g	2.7	30
9643200	Acid Extractable Beryllium (Be)	2024/09/17	96	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
9643200	Acid Extractable Boron (B)	2024/09/17	92	75 - 125	99	80 - 120	<5.0	ug/g	NC	30
9643200	Acid Extractable Cadmium (Cd)	2024/09/17	97	75 - 125	101	80 - 120	<0.10	ug/g	NC	30
9643200	Acid Extractable Chromium (Cr)	2024/09/17	NC	75 - 125	104	80 - 120	<1.0	ug/g	7.6	30
9643200	Acid Extractable Cobalt (Co)	2024/09/17	100	75 - 125	105	80 - 120	<0.10	ug/g	5.5	30
9643200	Acid Extractable Copper (Cu)	2024/09/17	96	75 - 125	102	80 - 120	<0.50	ug/g	11	30
9643200	Acid Extractable Lead (Pb)	2024/09/17	98	75 - 125	102	80 - 120	<1.0	ug/g	6.6	30
9643200	Acid Extractable Mercury (Hg)	2024/09/17	104	75 - 125	111	80 - 120	<0.050	ug/g		
9643200	Acid Extractable Molybdenum (Mo)	2024/09/17	96	75 - 125	97	80 - 120	<0.50	ug/g	8.5	30
9643200	Acid Extractable Nickel (Ni)	2024/09/17	101	75 - 125	104	80 - 120	<0.50	ug/g	6.6	30
9643200	Acid Extractable Selenium (Se)	2024/09/17	96	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
9643200	Acid Extractable Silver (Ag)	2024/09/17	98	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
9643200	Acid Extractable Thallium (Tl)	2024/09/17	99	75 - 125	103	80 - 120	<0.050	ug/g	0.070	30
9643200	Acid Extractable Uranium (U)	2024/09/17	100	75 - 125	102	80 - 120	<0.050	ug/g	0.14	30
9643200	Acid Extractable Vanadium (V)	2024/09/17	99	75 - 125	107	80 - 120	<5.0	ug/g	4.9	30
9643200	Acid Extractable Zinc (Zn)	2024/09/17	100	75 - 125	104	80 - 120	<5.0	ug/g	9.8	30
9643589	1-Methylnaphthalene	2024/09/18	72	50 - 130	71	50 - 130	<0.0050	ug/g	NC	40
9643589	2-Methylnaphthalene	2024/09/18	72	50 - 130	71	50 - 130	<0.0050	ug/g	NC	40
9643589	Acenaphthene	2024/09/18	86	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
9643589	Acenaphthylene	2024/09/18	83	50 - 130	83	50 - 130	<0.0050	ug/g	NC	40
9643589	Anthracene	2024/09/18	87	50 - 130	82	50 - 130	<0.0050	ug/g	NC	40



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575

Report Date: 2024/09/19

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 & 1890 MAYFIELD RD

Sampler Initials: AS

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9643589	Benzo(a)anthracene	2024/09/18	93	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9643589	Benzo(a)pyrene	2024/09/18	89	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
9643589	Benzo(b/j)fluoranthene	2024/09/18	84	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9643589	Benzo(g,h,i)perylene	2024/09/18	88	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9643589	Benzo(k)fluoranthene	2024/09/18	86	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
9643589	Chrysene	2024/09/18	78	50 - 130	77	50 - 130	<0.0050	ug/g	NC	40
9643589	Dibenzo(a,h)anthracene	2024/09/18	86	50 - 130	65	50 - 130	<0.0050	ug/g	NC	40
9643589	Fluoranthene	2024/09/18	92	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9643589	Fluorene	2024/09/18	88	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
9643589	Indeno(1,2,3-cd)pyrene	2024/09/18	88	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9643589	Naphthalene	2024/09/18	81	50 - 130	82	50 - 130	<0.0050	ug/g	NC	40
9643589	Phenanthrene	2024/09/18	84	50 - 130	83	50 - 130	<0.0050	ug/g	NC	40
9643589	Pyrene	2024/09/18	88	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9643590	Available (CaCl2) pH	2024/09/18			100	97 - 103			0.55	N/A
9645209	WAD Cyanide (Free)	2024/09/18	84	75 - 125	93	80 - 120	<0.01	ug/g	NC	35

N/A = Not Applicable

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

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

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

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

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

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

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

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



BUREAU
VERITAS

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

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.



**BUREAU
VERITAS**

Bureau Veritas Job #: C4S5575
Report Date: 2024/09/19

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 & 1890 MAYFIELD RD
Sampler Initials: AS

**Exceedance Summary Table – Reg153/04 T2-Soil/Res-C
Result Exceedances**

Sample ID	Bureau Veritas ID	Parameter	Criteria	Result	DL	UNITS
No Exceedances						
The exceedance summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.						



Your Project #: 24-197-100
 Site Location: 1850 MAYFIELD
 Your C.O.C. #: N/A

Attention: Keith Clarke

DS Consultants Limited
 6221 Highway 7, Unit 16
 Vaughan, ON
 CANADA L4H 0K8

Report Date: 2024/08/15
 Report #: R8278705
 Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4M0907

Received: 2024/07/18, 17:18

Sample Matrix: Soil
 # Samples Received: 11

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum	6	N/A	2024/07/25	CAM SOP-00301	EPA 8270D m
Methylnaphthalene Sum	5	N/A	2024/08/06	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2024/07/25	2024/07/25	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	5	2024/08/15	2024/08/15	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	5	2024/08/06	2024/08/06	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	1	N/A	2024/07/26		EPA 8260C m
1,3-Dichloropropene Sum	4	N/A	2024/08/06		EPA 8260C m
Free (WAD) Cyanide	1	2024/07/24	2024/07/24	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	5	2024/08/13	2024/08/13	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	5	2024/08/06	2024/08/06	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2024/07/25	2024/07/25	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	5	2024/08/13	2024/08/13	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	5	2024/08/06	2024/08/06	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2024/07/25	2024/07/25	CAM SOP-00436	EPA 3060A/7199 m
Hexavalent Chromium in Soil by IC (1)	5	2024/08/14	2024/08/14	CAM SOP-00436	EPA 3060A/7199 m
Hexavalent Chromium in Soil by IC (1)	5	2024/08/03	2024/08/06	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2024/07/24	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	4	N/A	2024/07/25	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	1	2024/07/24	2024/07/24	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	5	2024/07/24	2024/07/25	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	6	2024/07/25	2024/07/25	CAM SOP-00447	EPA 6020B m
Acid Extractable Metals by ICPMS	5	2024/08/06	2024/08/06	CAM SOP-00447	EPA 6020B m
Moisture	6	N/A	2024/07/24	CAM SOP-00445	Carter 2nd ed 70.2 m
Moisture	5	N/A	2024/08/02	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2024/07/24	2024/07/24	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	5	2024/07/24	2024/07/25	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM)	5	2024/08/03	2024/08/03	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT	1	2024/07/24	2024/07/24	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	5	2024/08/13	2024/08/13	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	5	2024/08/06	2024/08/06	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2024/07/26	CAM SOP-00102	EPA 6010C



Your Project #: 24-197-100
 Site Location: 1850 MAYFIELD
 Your C.O.C. #: N/A

Attention: Keith Clarke

DS Consultants Limited
 6221 Highway 7, Unit 16
 Vaughan, ON
 CANADA L4H 0K8

Report Date: 2024/08/15
 Report #: R8278705
 Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4M0907

Received: 2024/07/18, 17:18

Sample Matrix: Soil
 # Samples Received: 11

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Sodium Adsorption Ratio (SAR)	5	N/A	2024/08/13	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	5	N/A	2024/08/06	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2024/07/25	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Soil	4	N/A	2024/08/04	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.

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

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

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

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

(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated 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 #: 24-197-100
Site Location: 1850 MAYFIELD
Your C.O.C. #: N/A

Attention: Keith Clarke

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2024/08/15
Report #: R8278705
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C4M0907

Received: 2024/07/18, 17:18

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: ashton.gibson@bureauveritas.com
Phone# (905)817-5765

=====

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BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 ICPMS METALS (SOIL)

Bureau Veritas ID		ZTR131	ZTR133	ZTR135	ZTR138	ZTR141		
Sampling Date		2024/07/18	2024/07/18	2024/07/18	2024/07/18	2024/07/18		
COC Number		N/A	N/A	N/A	N/A	N/A		
	UNITS	BH24-9	BH24-11	BH24-13	BH24-16	BH24-19	RDL	QC Batch
Metals								
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	<0.20	<0.20	<0.20	0.20	9537692
Acid Extractable Arsenic (As)	ug/g	3.7	3.3	4.2	3.6	3.8	1.0	9537692
Acid Extractable Barium (Ba)	ug/g	52	71	62	55	62	0.50	9537692
Acid Extractable Beryllium (Be)	ug/g	0.54	0.62	0.62	0.56	0.59	0.20	9537692
Acid Extractable Boron (B)	ug/g	<5.0	5.2	<5.0	<5.0	<5.0	5.0	9537692
Acid Extractable Cadmium (Cd)	ug/g	0.14	0.23	0.17	0.15	0.16	0.10	9537692
Acid Extractable Chromium (Cr)	ug/g	17	19	19	18	18	1.0	9537692
Acid Extractable Cobalt (Co)	ug/g	7.5	7.5	8.6	7.3	7.8	0.10	9537692
Acid Extractable Copper (Cu)	ug/g	16	17	21	17	17	0.50	9537692
Acid Extractable Lead (Pb)	ug/g	13	13	12	13	14	1.0	9537692
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9537692
Acid Extractable Nickel (Ni)	ug/g	16	16	19	15	16	0.50	9537692
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	9537692
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	9537692
Acid Extractable Thallium (Tl)	ug/g	0.11	0.12	0.12	0.14	0.12	0.050	9537692
Acid Extractable Uranium (U)	ug/g	0.52	0.76	0.51	0.43	0.44	0.050	9537692
Acid Extractable Vanadium (V)	ug/g	28	30	30	31	30	5.0	9537692
Acid Extractable Zinc (Zn)	ug/g	55	66	59	56	60	5.0	9537692
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



BUREAU VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZTR131			ZTR132			ZTR133		
Sampling Date		2024/07/18			2024/07/18			2024/07/18		
COC Number		N/A			N/A			N/A		
	UNITS	BH24-9	RDL	QC Batch	BH24-10	RDL	QC Batch	BH24-11	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	0.24 (1)		9566237	0.35 (1)		9555442	0.24 (1)		9566237
Inorganics										
Conductivity	mS/cm	0.19	0.002	9572208	0.10	0.002	9557958	0.19	0.002	9572208
Available (CaCl2) pH	pH	6.61		9573049	6.09		9558079	6.51		9573049
WAD Cyanide (Free)	ug/g	<0.01	0.01	9572025	<0.01	0.01	9557933	<0.01	0.01	9572025
Chromium (VI)	ug/g	<0.18	0.18	9574976	<0.18	0.18	9556679	<0.18	0.18	9574976
Metals										
Hot Water Ext. Boron (B)	ug/g	0.54	0.050	9578041	0.39	0.050	9558141	0.61	0.050	9577807
Acid Extractable Antimony (Sb)	ug/g				<0.20	0.20	9558028			
Acid Extractable Arsenic (As)	ug/g				3.3	1.0	9558028			
Acid Extractable Barium (Ba)	ug/g				56	0.50	9558028			
Acid Extractable Beryllium (Be)	ug/g				0.60	0.20	9558028			
Acid Extractable Boron (B)	ug/g				<5.0	5.0	9558028			
Acid Extractable Cadmium (Cd)	ug/g				0.17	0.10	9558028			
Acid Extractable Chromium (Cr)	ug/g				18	1.0	9558028			
Acid Extractable Cobalt (Co)	ug/g				7.4	0.10	9558028			
Acid Extractable Copper (Cu)	ug/g				14	0.50	9558028			
Acid Extractable Lead (Pb)	ug/g				12	1.0	9558028			
Acid Extractable Molybdenum (Mo)	ug/g				<0.50	0.50	9558028			
Acid Extractable Nickel (Ni)	ug/g				16	0.50	9558028			
Acid Extractable Selenium (Se)	ug/g				<0.50	0.50	9558028			
Acid Extractable Silver (Ag)	ug/g				<0.20	0.20	9558028			
Acid Extractable Thallium (Tl)	ug/g				0.12	0.050	9558028			
Acid Extractable Uranium (U)	ug/g				0.77	0.050	9558028			
Acid Extractable Vanadium (V)	ug/g				29	5.0	9558028			
Acid Extractable Zinc (Zn)	ug/g				54	5.0	9558028			
Acid Extractable Mercury (Hg)	ug/g				<0.050	0.050	9558028			
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.										



BUREAU VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZTR134			ZTR135			ZTR137		
Sampling Date		2024/07/18			2024/07/18			2024/07/18		
COC Number		N/A			N/A			N/A		
	UNITS	BH24-12	RDL	QC Batch	BH24-13	RDL	QC Batch	BH24-15	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	0.31 (1)		9555442	0.22 (1)		9566237	0.37 (1)		9555442
Inorganics										
Conductivity	mS/cm	0.10	0.002	9557958	0.20	0.002	9572208	0.079	0.002	9557958
Available (CaCl2) pH	pH	6.10		9558079	6.54		9573049	6.17		9558079
WAD Cyanide (Free)	ug/g	<0.01	0.01	9557933	<0.01	0.01	9572025	<0.01	0.01	9557933
Chromium (VI)	ug/g	<0.18	0.18	9556679	<0.18	0.18	9574976	<0.18	0.18	9556679
Metals										
Hot Water Ext. Boron (B)	ug/g	0.41	0.050	9558141	0.46	0.050	9578041	0.21	0.050	9558141
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	9558028				<0.20	0.20	9558028
Acid Extractable Arsenic (As)	ug/g	3.1	1.0	9558028				4.0	1.0	9558028
Acid Extractable Barium (Ba)	ug/g	54	0.50	9558028				54	0.50	9558028
Acid Extractable Beryllium (Be)	ug/g	0.62	0.20	9558028				0.52	0.20	9558028
Acid Extractable Boron (B)	ug/g	<5.0	5.0	9558028				<5.0	5.0	9558028
Acid Extractable Cadmium (Cd)	ug/g	0.19	0.10	9558028				<0.10	0.10	9558028
Acid Extractable Chromium (Cr)	ug/g	19	1.0	9558028				23	1.0	9558028
Acid Extractable Cobalt (Co)	ug/g	7.5	0.10	9558028				10	0.10	9558028
Acid Extractable Copper (Cu)	ug/g	12	0.50	9558028				12	0.50	9558028
Acid Extractable Lead (Pb)	ug/g	12	1.0	9558028				13	1.0	9558028
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	9558028				<0.50	0.50	9558028
Acid Extractable Nickel (Ni)	ug/g	16	0.50	9558028				20	0.50	9558028
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	9558028				<0.50	0.50	9558028
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	9558028				<0.20	0.20	9558028
Acid Extractable Thallium (Tl)	ug/g	0.13	0.050	9558028				0.14	0.050	9558028
Acid Extractable Uranium (U)	ug/g	0.65	0.050	9558028				0.45	0.050	9558028
Acid Extractable Vanadium (V)	ug/g	29	5.0	9558028				38	5.0	9558028
Acid Extractable Zinc (Zn)	ug/g	72	5.0	9558028				73	5.0	9558028
Acid Extractable Mercury (Hg)	ug/g	0.051	0.050	9558028				<0.050	0.050	9558028
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.										



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Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZTR137			ZTR138			ZTR139	ZTR140		
Sampling Date		2024/07/18			2024/07/18			2024/07/18	2024/07/18		
COC Number		N/A			N/A			N/A	N/A		
	UNITS	BH24-15 Lab-Dup	RDL	QC Batch	BH24-16	RDL	QC Batch	BH24-17	BH24-18	RDL	QC Batch

Calculated Parameters											
Sodium Adsorption Ratio	N/A				0.35 (1)		9566237	0.43 (1)	0.29 (1)		955444
Inorganics											
Conductivity	mS/cm				0.087	0.002	9572208	0.072	0.12	0.002	9557958
Available (CaCl2) pH	pH				6.41		9573049	6.53	6.36		9558079
WAD Cyanide (Free)	ug/g				<0.01	0.01	9572025	<0.01	<0.01	0.01	9557933
Chromium (VI)	ug/g				<0.18	0.18	9574976	<0.18	<0.18	0.18	9556679
Metals											
Hot Water Ext. Boron (B)	ug/g				0.28	0.050	9578041	0.16	0.52	0.050	9558141
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	9558028				<0.20	<0.20	0.20	9558028
Acid Extractable Arsenic (As)	ug/g	3.7	1.0	9558028				5.2	3.0	1.0	9558028
Acid Extractable Barium (Ba)	ug/g	56	0.50	9558028				51	59	0.50	9558028
Acid Extractable Beryllium (Be)	ug/g	0.55	0.20	9558028				0.73	0.60	0.20	9558028
Acid Extractable Boron (B)	ug/g	<5.0	5.0	9558028				<5.0	<5.0	5.0	9558028
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	9558028				<0.10	0.16	0.10	9558028
Acid Extractable Chromium (Cr)	ug/g	23	1.0	9558028				22	19	1.0	9558028
Acid Extractable Cobalt (Co)	ug/g	9.9	0.10	9558028				13	7.5	0.10	9558028
Acid Extractable Copper (Cu)	ug/g	12	0.50	9558028				30	15	0.50	9558028
Acid Extractable Lead (Pb)	ug/g	13	1.0	9558028				10	14	1.0	9558028
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	9558028				<0.50	<0.50	0.50	9558028
Acid Extractable Nickel (Ni)	ug/g	20	0.50	9558028				23	16	0.50	9558028
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	9558028				<0.50	<0.50	0.50	9558028
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	9558028				<0.20	<0.20	0.20	9558028
Acid Extractable Thallium (Tl)	ug/g	0.15	0.050	9558028				0.14	0.13	0.050	9558028
Acid Extractable Uranium (U)	ug/g	0.45	0.050	9558028				0.56	0.64	0.050	9558028
Acid Extractable Vanadium (V)	ug/g	37	5.0	9558028				33	30	5.0	9558028
Acid Extractable Zinc (Zn)	ug/g	73	5.0	9558028				55	66	5.0	9558028
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	9558028				<0.050	<0.050	0.050	9558028

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 Lab-Dup = Laboratory Initiated Duplicate
 (1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.



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Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 METALS & INORGANICS PKG (SOIL)

Bureau Veritas ID		ZTR141			ZUP002		
Sampling Date		2024/07/18			2024/07/18		
COC Number		N/A			N/A		
	UNITS	BH24-19	RDL	QC Batch	DUP-1	RDL	QC Batch
Calculated Parameters							
Sodium Adsorption Ratio	N/A	0.29 (1)		9566237	0.36 (1)		9533007
Inorganics							
Conductivity	mS/cm	0.13	0.002	9572208	0.088	0.002	9537036
Available (CaCl2) pH	pH	6.25		9573049	6.61		9535223
WAD Cyanide (Free)	ug/g	<0.01	0.01	9572025	<0.01	0.01	9534051
Chromium (VI)	ug/g	<0.18	0.18	9574976	<0.18	0.18	9536965
Metals							
Hot Water Ext. Boron (B)	ug/g	0.40	0.050	9578041	0.28	0.050	9537133
Acid Extractable Antimony (Sb)	ug/g				<0.20	0.20	9537093
Acid Extractable Arsenic (As)	ug/g				4.1	1.0	9537093
Acid Extractable Barium (Ba)	ug/g				62	0.50	9537093
Acid Extractable Beryllium (Be)	ug/g				0.62	0.20	9537093
Acid Extractable Boron (B)	ug/g				<5.0	5.0	9537093
Acid Extractable Cadmium (Cd)	ug/g				0.11	0.10	9537093
Acid Extractable Chromium (Cr)	ug/g				22	1.0	9537093
Acid Extractable Cobalt (Co)	ug/g				9.7	0.10	9537093
Acid Extractable Copper (Cu)	ug/g				13	0.50	9537093
Acid Extractable Lead (Pb)	ug/g				14	1.0	9537093
Acid Extractable Molybdenum (Mo)	ug/g				0.52	0.50	9537093
Acid Extractable Nickel (Ni)	ug/g				18	0.50	9537093
Acid Extractable Selenium (Se)	ug/g				<0.50	0.50	9537093
Acid Extractable Silver (Ag)	ug/g				<0.20	0.20	9537093
Acid Extractable Thallium (Tl)	ug/g				0.16	0.050	9537093
Acid Extractable Uranium (U)	ug/g				0.48	0.050	9537093
Acid Extractable Vanadium (V)	ug/g				38	5.0	9537093
Acid Extractable Zinc (Zn)	ug/g				72	5.0	9537093
Acid Extractable Mercury (Hg)	ug/g				<0.050	0.050	9537093
RDL = Reportable Detection Limit QC Batch = Quality Control Batch (1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.							



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Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZTR131		ZTR132		ZTR133		ZTR134		
Sampling Date		2024/07/18		2024/07/18		2024/07/18		2024/07/18		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	BH24-9	QC Batch	BH24-10	QC Batch	BH24-11	QC Batch	BH24-12	RDL	QC Batch
Calculated Parameters										
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	9527160	<0.0071	9555438	<0.0071	9527160	<0.0071	0.0071	9555438
Polyaromatic Hydrocarbons										
Acenaphthene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Acenaphthylene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(a)anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(a)pyrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(b,j)fluoranthene	ug/g	0.0066	9535616	0.0057	9556535	0.0089	9535616	0.0088	0.0050	9556535
Benzo(g,h,i)perylene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(k)fluoranthene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Chrysene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Dibenzo(a,h)anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Fluoranthene	ug/g	0.0065	9535616	<0.0050	9556535	0.0090	9535616	0.0071	0.0050	9556535
Fluorene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
1-Methylnaphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
2-Methylnaphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Naphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Phenanthrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Pyrene	ug/g	0.030	9535616	<0.0050	9556535	0.019	9535616	0.0066	0.0050	9556535
Surrogate Recovery (%)										
D10-Anthracene	%	105	9535616	91	9556535	108	9535616	92		9556535
D14-Terphenyl (FS)	%	105	9535616	89	9556535	111	9535616	90		9556535
D8-Acenaphthylene	%	97	9535616	84	9556535	97	9535616	84		9556535
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										



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Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZTR135		ZTR137		ZTR138		ZTR139		
Sampling Date		2024/07/18		2024/07/18		2024/07/18		2024/07/18		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	BH24-13	QC Batch	BH24-15	QC Batch	BH24-16	QC Batch	BH24-17	RDL	QC Batch
Calculated Parameters										
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	9527160	<0.0071	9555438	<0.0071	9527160	<0.0071	0.0071	9555438
Polyaromatic Hydrocarbons										
Acenaphthene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Acenaphthylene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(a)anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(a)pyrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(b/j)fluoranthene	ug/g	0.0054	9535616	0.0056	9556535	0.0073	9535616	<0.0050	0.0050	9556535
Benzo(g,h,i)perylene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Benzo(k)fluoranthene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Chrysene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Dibenzo(a,h)anthracene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Fluoranthene	ug/g	0.0050	9535616	<0.0050	9556535	0.0076	9535616	<0.0050	0.0050	9556535
Fluorene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
1-Methylnaphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
2-Methylnaphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Naphthalene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Phenanthrene	ug/g	<0.0050	9535616	<0.0050	9556535	<0.0050	9535616	<0.0050	0.0050	9556535
Pyrene	ug/g	<0.0050	9535616	<0.0050	9556535	0.0066	9535616	<0.0050	0.0050	9556535
Surrogate Recovery (%)										
D10-Anthracene	%	106	9535616	91	9556535	106	9535616	89		9556535
D14-Terphenyl (FS)	%	108	9535616	89	9556535	109	9535616	87		9556535
D8-Acenaphthylene	%	96	9535616	82	9556535	94	9535616	81		9556535
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										



BUREAU VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZTR140			ZTR140			ZTR141		
Sampling Date		2024/07/18			2024/07/18			2024/07/18		
COC Number		N/A			N/A			N/A		
	UNITS	BH24-18	RDL	QC Batch	BH24-18 Lab-Dup	RDL	QC Batch	BH24-19	RDL	QC Batch

Calculated Parameters

Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	9555438				<0.0071	0.0071	9527160
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Polyaromatic Hydrocarbons

Acenaphthene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Acenaphthylene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Anthracene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Benzo(a)anthracene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Benzo(a)pyrene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	0.0054	0.0050	9535616
Benzo(b/j)fluoranthene	ug/g	0.0059	0.0050	9556535	0.0063	0.0050	9556535	0.011	0.0050	9535616
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	0.0056	0.0050	9535616
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Chrysene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Fluoranthene	ug/g	0.0064	0.0050	9556535	0.0061	0.0050	9556535	0.010	0.0050	9535616
Fluorene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	0.0051	0.0050	9535616
1-Methylnaphthalene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
2-Methylnaphthalene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Naphthalene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Phenanthrene	ug/g	<0.0050	0.0050	9556535	<0.0050	0.0050	9556535	<0.0050	0.0050	9535616
Pyrene	ug/g	0.0059	0.0050	9556535	0.0057	0.0050	9556535	0.0087	0.0050	9535616

Surrogate Recovery (%)

D10-Anthracene	%	91		9556535	92		9556535	110		9535616
D14-Terphenyl (FS)	%	88		9556535	92		9556535	111		9535616
D8-Acenaphthylene	%	81		9556535	84		9556535	99		9535616

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate



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VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 PAHS (SOIL)

Bureau Veritas ID		ZUP002		
Sampling Date		2024/07/18		
COC Number		N/A		
	UNITS	DUP-1	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	9532998
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.0050	0.0050	9536105
Acenaphthylene	ug/g	<0.0050	0.0050	9536105
Anthracene	ug/g	<0.0050	0.0050	9536105
Benzo(a)anthracene	ug/g	<0.0050	0.0050	9536105
Benzo(a)pyrene	ug/g	<0.0050	0.0050	9536105
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	9536105
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	9536105
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	9536105
Chrysene	ug/g	<0.0050	0.0050	9536105
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	9536105
Fluoranthene	ug/g	<0.0050	0.0050	9536105
Fluorene	ug/g	<0.0050	0.0050	9536105
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	9536105
1-Methylnaphthalene	ug/g	<0.0050	0.0050	9536105
2-Methylnaphthalene	ug/g	<0.0050	0.0050	9536105
Naphthalene	ug/g	<0.0050	0.0050	9536105
Phenanthrene	ug/g	<0.0050	0.0050	9536105
Pyrene	ug/g	<0.0050	0.0050	9536105
Surrogate Recovery (%)				
D10-Anthracene	%	109		9536105
D14-Terphenyl (FS)	%	104		9536105
D8-Acenaphthylene	%	93		9536105
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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

Bureau Veritas ID		ZTR131		ZTR133		ZTR135	ZTR138		ZUP002		
Sampling Date		2024/07/18		2024/07/18		2024/07/18	2024/07/18		2024/07/18		
COC Number		N/A		N/A		N/A	N/A		N/A		
	UNITS	BH24-9	RDL	BH24-11	RDL	BH24-13	BH24-16	QC Batch	DUP-1	RDL	QC Batch
BTEX & F1 Hydrocarbons											
Benzene	ug/g	<0.020	0.020	<0.040	0.040	<0.020	<0.020	9536805	<0.020	0.020	9533807
Toluene	ug/g	<0.020	0.020	<0.040	0.040	<0.020	<0.020	9536805	<0.020	0.020	9533807
Ethylbenzene	ug/g	<0.020	0.020	<0.040	0.040	<0.020	<0.020	9536805	<0.020	0.020	9533807
o-Xylene	ug/g	<0.020	0.020	<0.040	0.040	<0.020	<0.020	9536805	<0.020	0.020	9533807
p+m-Xylene	ug/g	<0.040	0.040	<0.080	0.080	<0.040	<0.040	9536805	<0.040	0.040	9533807
Total Xylenes	ug/g	<0.040	0.040	<0.080	0.080	<0.040	<0.040	9536805	<0.040	0.040	9533807
F1 (C6-C10)	ug/g	<10	10	<20	20	<10	<10	9536805	<10	10	9533807
F1 (C6-C10) - BTEX	ug/g	<10	10	<20	20	<10	<10	9536805	<10	10	9533807
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	<10	10	<10	<10	9535282	<10	10	9536324
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	65	50	<50	<50	9535282	<50	50	9536324
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	<50	50	<50	<50	9535282	<50	50	9536324
Reached Baseline at C50	ug/g	Yes		Yes		Yes	Yes	9535282	Yes		9536324
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	103		110		106	104	9536805	101		9533807
4-Bromofluorobenzene	%	96		93		95	95	9536805	106		9533807
D10-o-Xylene	%	107		111		109	111	9536805	109		9533807
D4-1,2-Dichloroethane	%	110		102		110	105	9536805	104		9533807
o-Terphenyl	%	89		90		92	91	9535282	92		9536324
RDL = Reportable Detection Limit QC Batch = Quality Control Batch											



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

Bureau Veritas ID		ZTR141		
Sampling Date		2024/07/18		
COC Number		N/A		
	UNITS	BH24-19	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	9532426
Volatile Organics				
Acetone (2-Propanone)	ug/g	<0.49	0.49	9535197
Benzene	ug/g	<0.0060	0.0060	9535197
Bromodichloromethane	ug/g	<0.040	0.040	9535197
Bromoform	ug/g	<0.040	0.040	9535197
Bromomethane	ug/g	<0.040	0.040	9535197
Carbon Tetrachloride	ug/g	<0.040	0.040	9535197
Chlorobenzene	ug/g	<0.040	0.040	9535197
Chloroform	ug/g	<0.040	0.040	9535197
Dibromochloromethane	ug/g	<0.040	0.040	9535197
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9535197
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9535197
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9535197
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9535197
1,1-Dichloroethane	ug/g	<0.040	0.040	9535197
1,2-Dichloroethane	ug/g	<0.049	0.049	9535197
1,1-Dichloroethylene	ug/g	<0.040	0.040	9535197
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9535197
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9535197
1,2-Dichloropropane	ug/g	<0.040	0.040	9535197
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9535197
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9535197
Ethylbenzene	ug/g	<0.010	0.010	9535197
Ethylene Dibromide	ug/g	<0.040	0.040	9535197
Hexane	ug/g	<0.040	0.040	9535197
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9535197
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	9535197
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9535197
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9535197
Styrene	ug/g	<0.040	0.040	9535197
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9535197
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

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

Bureau Veritas ID		ZTR141		
Sampling Date		2024/07/18		
COC Number		N/A		
	UNITS	BH24-19	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9535197
Tetrachloroethylene	ug/g	<0.040	0.040	9535197
Toluene	ug/g	<0.020	0.020	9535197
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9535197
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9535197
Trichloroethylene	ug/g	<0.010	0.010	9535197
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9535197
Vinyl Chloride	ug/g	<0.019	0.019	9535197
p+m-Xylene	ug/g	<0.020	0.020	9535197
o-Xylene	ug/g	<0.020	0.020	9535197
Total Xylenes	ug/g	<0.020	0.020	9535197
F1 (C6-C10)	ug/g	<10	10	9535197
F1 (C6-C10) - BTEX	ug/g	<10	10	9535197
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	10	10	9535282
F3 (C16-C34 Hydrocarbons)	ug/g	88	50	9535282
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	9535282
Reached Baseline at C50	ug/g	Yes		9535282
Surrogate Recovery (%)				
o-Terphenyl	%	90		9535282
4-Bromofluorobenzene	%	89		9535197
D10-o-Xylene	%	89		9535197
D4-1,2-Dichloroethane	%	99		9535197
D8-Toluene	%	100		9535197
RDL = Reportable Detection Limit QC Batch = Quality Control Batch				



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VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
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O.REG 153 VOCs BY HS (SOIL)

Bureau Veritas ID		ZTR131			ZTR131			ZTR133		
Sampling Date		2024/07/18			2024/07/18			2024/07/18		
COC Number		N/A			N/A			N/A		
	UNITS	BH24-9	RDL	QC Batch	BH24-9 Lab-Dup	RDL	QC Batch	BH24-11	RDL	QC Batch

Calculated Parameters										
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	9554650				<0.10	0.10	9554650
Volatile Organics										
Acetone (2-Propanone)	ug/g	<0.49	0.49	9555822	<0.49	0.49	9555822	<0.98	0.98	9555822
Benzene	ug/g	<0.0060	0.0060	9555822	<0.0060	0.0060	9555822	<0.012	0.012	9555822
Bromodichloromethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Bromoform	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Bromomethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Carbon Tetrachloride	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Chlorobenzene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Chloroform	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Dibromochloromethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,1-Dichloroethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,2-Dichloroethane	ug/g	<0.049	0.049	9555822	<0.049	0.049	9555822	<0.098	0.098	9555822
1,1-Dichloroethylene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,2-Dichloropropane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9555822	<0.030	0.030	9555822	<0.060	0.060	9555822
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Ethylbenzene	ug/g	<0.010	0.010	9555822	<0.010	0.010	9555822	<0.020	0.020	9555822
Ethylene Dibromide	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Hexane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	0.094	0.080	9555822
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9555822	<0.049	0.049	9555822	0.76	0.098	9555822
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	9555822	<0.40	0.40	9555822	<0.80	0.80	9555822
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9555822	<0.40	0.40	9555822	<0.80	0.80	9555822
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Styrene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch
 Lab-Dup = Laboratory Initiated Duplicate



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VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 VOCs BY HS (SOIL)

Bureau Veritas ID		ZTR131			ZTR131			ZTR133		
Sampling Date		2024/07/18			2024/07/18			2024/07/18		
COC Number		N/A			N/A			N/A		
	UNITS	BH24-9	RDL	QC Batch	BH24-9 Lab-Dup	RDL	QC Batch	BH24-11	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Tetrachloroethylene	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Toluene	ug/g	<0.020	0.020	9555822	<0.020	0.020	9555822	<0.040	0.040	9555822
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Trichloroethylene	ug/g	<0.010	0.010	9555822	<0.010	0.010	9555822	<0.020	0.020	9555822
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9555822	<0.040	0.040	9555822	<0.080	0.080	9555822
Vinyl Chloride	ug/g	<0.019	0.019	9555822	<0.019	0.019	9555822	<0.038	0.038	9555822
p+m-Xylene	ug/g	<0.020	0.020	9555822	<0.020	0.020	9555822	<0.040	0.040	9555822
o-Xylene	ug/g	<0.020	0.020	9555822	<0.020	0.020	9555822	<0.040	0.040	9555822
Total Xylenes	ug/g	<0.020	0.020	9555822	<0.020	0.020	9555822	<0.040	0.040	9555822
Surrogate Recovery (%)										
4-Bromofluorobenzene	%	99		9555822	99		9555822	98		9555822
D10-o-Xylene	%	89		9555822	91		9555822	89		9555822
D4-1,2-Dichloroethane	%	103		9555822	101		9555822	101		9555822
D8-Toluene	%	95		9555822	95		9555822	95		9555822
RDL = Reportable Detection Limit QC Batch = Quality Control Batch Lab-Dup = Laboratory Initiated Duplicate										



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VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 VOCs BY HS (SOIL)

Bureau Veritas ID		ZTR135		ZTR138		
Sampling Date		2024/07/18		2024/07/18		
COC Number		N/A		N/A		
	UNITS	BH24-13	RDL	BH24-16	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.10	0.10	<0.050	0.050	9554650
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.98	0.98	<0.49	0.49	9555822
Benzene	ug/g	<0.012	0.012	<0.0060	0.0060	9555822
Bromodichloromethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
Bromoform	ug/g	<0.080	0.080	<0.040	0.040	9555822
Bromomethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
Carbon Tetrachloride	ug/g	<0.080	0.080	<0.040	0.040	9555822
Chlorobenzene	ug/g	<0.080	0.080	<0.040	0.040	9555822
Chloroform	ug/g	<0.080	0.080	<0.040	0.040	9555822
Dibromochloromethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,2-Dichlorobenzene	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,3-Dichlorobenzene	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,4-Dichlorobenzene	ug/g	<0.080	0.080	<0.040	0.040	9555822
Dichlorodifluoromethane (FREON 12)	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,1-Dichloroethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,2-Dichloroethane	ug/g	<0.098	0.098	<0.049	0.049	9555822
1,1-Dichloroethylene	ug/g	<0.080	0.080	<0.040	0.040	9555822
cis-1,2-Dichloroethylene	ug/g	<0.080	0.080	<0.040	0.040	9555822
trans-1,2-Dichloroethylene	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,2-Dichloropropane	ug/g	<0.080	0.080	<0.040	0.040	9555822
cis-1,3-Dichloropropene	ug/g	<0.060	0.060	<0.030	0.030	9555822
trans-1,3-Dichloropropene	ug/g	<0.080	0.080	<0.040	0.040	9555822
Ethylbenzene	ug/g	<0.020	0.020	<0.010	0.010	9555822
Ethylene Dibromide	ug/g	<0.080	0.080	<0.040	0.040	9555822
Hexane	ug/g	<0.080	0.080	0.078	0.040	9555822
Methylene Chloride(Dichloromethane)	ug/g	<0.098	0.098	0.48	0.049	9555822
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.80	0.80	<0.40	0.40	9555822
Methyl Isobutyl Ketone	ug/g	<0.80	0.80	<0.40	0.40	9555822
Methyl t-butyl ether (MTBE)	ug/g	<0.080	0.080	<0.040	0.040	9555822
Styrene	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,1,1,2-Tetrachloroethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

O.REG 153 VOCs BY HS (SOIL)

Bureau Veritas ID		ZTR135		ZTR138		
Sampling Date		2024/07/18		2024/07/18		
COC Number		N/A		N/A		
	UNITS	BH24-13	RDL	BH24-16	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
Tetrachloroethylene	ug/g	<0.080	0.080	<0.040	0.040	9555822
Toluene	ug/g	<0.040	0.040	<0.020	0.020	9555822
1,1,1-Trichloroethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
1,1,2-Trichloroethane	ug/g	<0.080	0.080	<0.040	0.040	9555822
Trichloroethylene	ug/g	<0.020	0.020	<0.010	0.010	9555822
Trichlorofluoromethane (FREON 11)	ug/g	<0.080	0.080	<0.040	0.040	9555822
Vinyl Chloride	ug/g	<0.038	0.038	<0.019	0.019	9555822
p+m-Xylene	ug/g	<0.040	0.040	<0.020	0.020	9555822
o-Xylene	ug/g	<0.040	0.040	<0.020	0.020	9555822
Total Xylenes	ug/g	<0.040	0.040	<0.020	0.020	9555822
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	98		99		9555822
D10-o-Xylene	%	98		100		9555822
D4-1,2-Dichloroethane	%	102		100		9555822
D8-Toluene	%	95		95		9555822
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU VERITAS

Bureau Veritas Job #: C4M0907
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Site Location: 1850 MAYFIELD
Sampler Initials: MB

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZTR131		ZTR132		ZTR133		ZTR134		
Sampling Date		2024/07/18		2024/07/18		2024/07/18		2024/07/18		
COC Number		N/A		N/A		N/A		N/A		
	UNITS	BH24-9	QC Batch	BH24-10	QC Batch	BH24-11	QC Batch	BH24-12	RDL	QC Batch
Inorganics										
Moisture	%	22	9534286	21	9555530	34	9534286	20	1.0	9555530
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

Bureau Veritas ID		ZTR135		ZTR137		ZTR138		ZTR139	ZTR140		
Sampling Date		2024/07/18		2024/07/18		2024/07/18		2024/07/18	2024/07/18		
COC Number		N/A		N/A		N/A		N/A	N/A		
	UNITS	BH24-13	QC Batch	BH24-15	QC Batch	BH24-16	QC Batch	BH24-17	BH24-18	RDL	QC Batch
Inorganics											
Moisture	%	27	9534286	21	9555530	24	9534286	18	28	1.0	9555530
RDL = Reportable Detection Limit QC Batch = Quality Control Batch											

Bureau Veritas ID		ZTR141		ZUP002		
Sampling Date		2024/07/18		2024/07/18		
COC Number		N/A		N/A		
	UNITS	BH24-19	QC Batch	DUP-1	RDL	QC Batch
Inorganics						
Moisture	%	26	9534286	23	1.0	9534193
RDL = Reportable Detection Limit QC Batch = Quality Control Batch						



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: ZTR131
Sample ID: BH24-9
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9527160	N/A	2024/07/25	Automated Statchk
Hot Water Extractable Boron	ICP	9578041	2024/08/15	2024/08/15	Suban Kanapathipplai
1,3-Dichloropropene Sum	CALC	9554650	N/A	2024/08/06	Automated Statchk
Free (WAD) Cyanide	TECH	9572025	2024/08/13	2024/08/13	Prgya Panchal
Conductivity	AT	9572208	2024/08/13	2024/08/13	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9574976	2024/08/14	2024/08/14	Harpuneet Kaur
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9536805	N/A	2024/07/25	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9535282	2024/07/24	2024/07/25	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537692	2024/07/25	2024/07/25	Daniel Teclu
Moisture	BAL	9534286	N/A	2024/07/24	Frances Gacayan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9535616	2024/07/24	2024/07/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9573049	2024/08/13	2024/08/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9566237	N/A	2024/08/13	Automated Statchk
Volatile Organic Compounds in Soil	GC/MS	9555822	N/A	2024/08/04	Narayan Ghimire

Bureau Veritas ID: ZTR131 Dup
Sample ID: BH24-9
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Soil	GC/MS	9555822	N/A	2024/08/04	Narayan Ghimire

Bureau Veritas ID: ZTR132
Sample ID: BH24-10
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9555438	N/A	2024/08/06	Automated Statchk
Hot Water Extractable Boron	ICP	9558141	2024/08/06	2024/08/06	Suban Kanapathipplai
Free (WAD) Cyanide	TECH	9557933	2024/08/06	2024/08/06	Prgya Panchal
Conductivity	AT	9557958	2024/08/06	2024/08/06	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9556679	2024/08/03	2024/08/06	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu
Moisture	BAL	9555530	N/A	2024/08/02	Raj Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9558079	2024/08/06	2024/08/06	Gurpartee K AUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9555442	N/A	2024/08/06	Automated Statchk

Bureau Veritas ID: ZTR133
Sample ID: BH24-11
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9527160	N/A	2024/07/25	Automated Statchk



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: ZTR133
Sample ID: BH24-11
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9577807	2024/08/15	2024/08/15	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9554650	N/A	2024/08/06	Automated Statchk
Free (WAD) Cyanide	TECH	9572025	2024/08/13	2024/08/13	Prgya Panchal
Conductivity	AT	9572208	2024/08/13	2024/08/13	Gurparteeek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9574976	2024/08/14	2024/08/14	Harpuneet Kaur
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9536805	N/A	2024/07/25	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9535282	2024/07/24	2024/07/25	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537692	2024/07/25	2024/07/25	Daniel Teclu
Moisture	BAL	9534286	N/A	2024/07/24	Frances Gacayan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9535616	2024/07/24	2024/07/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9573049	2024/08/13	2024/08/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9566237	N/A	2024/08/13	Automated Statchk
Volatile Organic Compounds in Soil	GC/MS	9555822	N/A	2024/08/04	Narayan Ghimire

Bureau Veritas ID: ZTR134
Sample ID: BH24-12
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9555438	N/A	2024/08/06	Automated Statchk
Hot Water Extractable Boron	ICP	9558141	2024/08/06	2024/08/06	Suban Kanapathipplai
Free (WAD) Cyanide	TECH	9557933	2024/08/06	2024/08/06	Prgya Panchal
Conductivity	AT	9557958	2024/08/06	2024/08/06	Gurparteeek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9556679	2024/08/03	2024/08/06	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu
Moisture	BAL	9555530	N/A	2024/08/02	Raj Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9558079	2024/08/06	2024/08/06	Gurparteeek KAUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9555442	N/A	2024/08/06	Automated Statchk

Bureau Veritas ID: ZTR135
Sample ID: BH24-13
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9527160	N/A	2024/07/25	Automated Statchk
Hot Water Extractable Boron	ICP	9578041	2024/08/15	2024/08/15	Suban Kanapathipplai
1,3-Dichloropropene Sum	CALC	9554650	N/A	2024/08/06	Automated Statchk
Free (WAD) Cyanide	TECH	9572025	2024/08/13	2024/08/13	Prgya Panchal
Conductivity	AT	9572208	2024/08/13	2024/08/13	Gurparteeek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9574976	2024/08/14	2024/08/14	Harpuneet Kaur
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9536805	N/A	2024/07/25	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9535282	2024/07/24	2024/07/25	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537692	2024/07/25	2024/07/25	Daniel Teclu



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: ZTR135
Sample ID: BH24-13
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9534286	N/A	2024/07/24	Frances Gacayan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9535616	2024/07/24	2024/07/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9573049	2024/08/13	2024/08/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9566237	N/A	2024/08/13	Automated Statchk
Volatile Organic Compounds in Soil	GC/MS	9555822	N/A	2024/08/04	Narayan Ghimire

Bureau Veritas ID: ZTR137
Sample ID: BH24-15
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9555438	N/A	2024/08/06	Automated Statchk
Hot Water Extractable Boron	ICP	9558141	2024/08/06	2024/08/06	Suban Kanapathipplai
Free (WAD) Cyanide	TECH	9557933	2024/08/06	2024/08/06	Prgya Panchal
Conductivity	AT	9557958	2024/08/06	2024/08/06	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9556679	2024/08/03	2024/08/06	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu
Moisture	BAL	9555530	N/A	2024/08/02	Raj Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9558079	2024/08/06	2024/08/06	Gurpartee K AUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9555442	N/A	2024/08/06	Automated Statchk

Bureau Veritas ID: ZTR137 Dup
Sample ID: BH24-15
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu

Bureau Veritas ID: ZTR138
Sample ID: BH24-16
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9527160	N/A	2024/07/25	Automated Statchk
Hot Water Extractable Boron	ICP	9578041	2024/08/15	2024/08/15	Suban Kanapathipplai
1,3-Dichloropropene Sum	CALC	9554650	N/A	2024/08/06	Automated Statchk
Free (WAD) Cyanide	TECH	9572025	2024/08/13	2024/08/13	Prgya Panchal
Conductivity	AT	9572208	2024/08/13	2024/08/13	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9574976	2024/08/14	2024/08/14	Harpuneet Kaur
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9536805	N/A	2024/07/25	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9535282	2024/07/24	2024/07/25	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537692	2024/07/25	2024/07/25	Daniel Teclu
Moisture	BAL	9534286	N/A	2024/07/24	Frances Gacayan



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: ZTR138
Sample ID: BH24-16
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9535616	2024/07/24	2024/07/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9573049	2024/08/13	2024/08/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9566237	N/A	2024/08/13	Automated Statchk
Volatile Organic Compounds in Soil	GC/MS	9555822	N/A	2024/08/04	Narayan Ghimire

Bureau Veritas ID: ZTR139
Sample ID: BH24-17
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9555438	N/A	2024/08/06	Automated Statchk
Hot Water Extractable Boron	ICP	9558141	2024/08/06	2024/08/06	Suban Kanapathipplai
Free (WAD) Cyanide	TECH	9557933	2024/08/06	2024/08/06	Prgya Panchal
Conductivity	AT	9557958	2024/08/06	2024/08/06	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9556679	2024/08/03	2024/08/06	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu
Moisture	BAL	9555530	N/A	2024/08/02	Raj Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9558079	2024/08/06	2024/08/06	Gurpartee K AUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9555444	N/A	2024/08/06	Automated Statchk

Bureau Veritas ID: ZTR140
Sample ID: BH24-18
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9555438	N/A	2024/08/06	Automated Statchk
Hot Water Extractable Boron	ICP	9558141	2024/08/06	2024/08/06	Suban Kanapathipplai
Free (WAD) Cyanide	TECH	9557933	2024/08/06	2024/08/06	Prgya Panchal
Conductivity	AT	9557958	2024/08/06	2024/08/06	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9556679	2024/08/03	2024/08/06	Rupinder Sihota
Acid Extractable Metals by ICPMS	ICP/MS	9558028	2024/08/06	2024/08/06	Daniel Teclu
Moisture	BAL	9555530	N/A	2024/08/02	Raj Patel
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9558079	2024/08/06	2024/08/06	Gurpartee K AUR
Sodium Adsorption Ratio (SAR)	CALC/MET	9555444	N/A	2024/08/06	Automated Statchk

Bureau Veritas ID: ZTR140 Dup
Sample ID: BH24-18
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9556535	2024/08/03	2024/08/03	Jonghan Yoon



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

TEST SUMMARY

Bureau Veritas ID: ZTR141
Sample ID: BH24-19
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9527160	N/A	2024/07/25	Automated Statchk
Hot Water Extractable Boron	ICP	9578041	2024/08/15	2024/08/15	Suban Kanapathipplai
1,3-Dichloropropene Sum	CALC	9532426	N/A	2024/07/26	Automated Statchk
Free (WAD) Cyanide	TECH	9572025	2024/08/13	2024/08/13	Prgya Panchal
Conductivity	AT	9572208	2024/08/13	2024/08/13	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9574976	2024/08/14	2024/08/14	Harpuneet Kaur
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9535282	2024/07/24	2024/07/25	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537692	2024/07/25	2024/07/25	Daniel Teclu
Moisture	BAL	9534286	N/A	2024/07/24	Frances Gacayan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9535616	2024/07/24	2024/07/25	Jonghan Yoon
pH CaCl2 EXTRACT	AT	9573049	2024/08/13	2024/08/13	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9566237	N/A	2024/08/13	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9535197	N/A	2024/07/25	Denis Reid

Bureau Veritas ID: ZUP002
Sample ID: DUP-1
Matrix: Soil

Collected: 2024/07/18
Shipped:
Received: 2024/07/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9532998	N/A	2024/07/25	Automated Statchk
Hot Water Extractable Boron	ICP	9537133	2024/07/25	2024/07/25	Japneet Gill
Free (WAD) Cyanide	TECH	9534051	2024/07/24	2024/07/24	Prgya Panchal
Conductivity	AT	9537036	2024/07/25	2024/07/25	Gurparteek KAUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9536965	2024/07/25	2024/07/25	Rupinder Sihota
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	9533807	N/A	2024/07/24	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9536324	2024/07/24	2024/07/24	Mohammed Abdul Nafay Shoeb
Acid Extractable Metals by ICPMS	ICP/MS	9537093	2024/07/25	2024/07/25	Viviana Canzonieri
Moisture	BAL	9534193	N/A	2024/07/24	Joe Thomas
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	9536105	2024/07/24	2024/07/24	Jiaxuan (Simon) Xi
pH CaCl2 EXTRACT	AT	9535223	2024/07/24	2024/07/24	Kien Tran
Sodium Adsorption Ratio (SAR)	CALC/MET	9533007	N/A	2024/07/26	Automated Statchk



GENERAL COMMENTS

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

Package 1	18.0°C
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Revised Report[8/15/2024]: Inorganics added to samples BH24-9, BH24-11, BH24-13, BH24-16, and BH24-19

Sample ZTR131 [BH24-9] : VOC Analysis: The sample extract was transferred from the soil before 14 days. Analysis was completed within the 40 day specified hold time.

Sample ZTR133 [BH24-11] : F1/BTEX Analysis: Detection limits were adjusted for high moisture content and sample weight.
VOC Analysis: The sample extract was transferred from the soil before 14 days. Analysis was completed within the 40 day specified hold time.

Sample ZTR133 [BH24-11] : VOC Analysis: Detection limits were raised due to high moisture content and/or low weight of soil provided.

Sample ZTR135 [BH24-13] : VOC Analysis: The sample extract was transferred from the soil before 14 days. Analysis was completed within the 40 day specified hold time.

Sample ZTR135 [BH24-13] : VOC Analysis: Detection limits were raised due to high moisture content and/or low weight of soil provided.

Sample ZTR138 [BH24-16] : VOC Analysis: The sample extract was transferred from the soil before 14 days. Analysis was completed within the 40 day specified hold time.

Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9533807	1,4-Difluorobenzene	2024/07/24	96	60 - 140	94	60 - 140	104	%		
9533807	4-Bromofluorobenzene	2024/07/24	93	60 - 140	95	60 - 140	111	%		
9533807	D10-o-Xylene	2024/07/24	104	60 - 140	118	60 - 140	98	%		
9533807	D4-1,2-Dichloroethane	2024/07/24	93	60 - 140	96	60 - 140	107	%		
9535197	4-Bromofluorobenzene	2024/07/25	92	60 - 140	94	60 - 140	90	%		
9535197	D10-o-Xylene	2024/07/25	97	60 - 130	90	60 - 130	91	%		
9535197	D4-1,2-Dichloroethane	2024/07/25	96	60 - 140	100	60 - 140	97	%		
9535197	D8-Toluene	2024/07/25	107	60 - 140	104	60 - 140	101	%		
9535282	o-Terphenyl	2024/07/25	92	60 - 130	88	60 - 130	92	%		
9535616	D10-Anthracene	2024/07/24	122	50 - 130	102	50 - 130	103	%		
9535616	D14-Terphenyl (FS)	2024/07/24	108	50 - 130	106	50 - 130	103	%		
9535616	D8-Acenaphthylene	2024/07/24	99	50 - 130	97	50 - 130	92	%		
9536105	D10-Anthracene	2024/07/24	98	50 - 130	114	50 - 130	114	%		
9536105	D14-Terphenyl (FS)	2024/07/24	97	50 - 130	109	50 - 130	104	%		
9536105	D8-Acenaphthylene	2024/07/24	91	50 - 130	101	50 - 130	98	%		
9536324	o-Terphenyl	2024/07/24	97	60 - 130	91	60 - 130	92	%		
9536805	1,4-Difluorobenzene	2024/07/25	101	60 - 140	105	60 - 140	104	%		
9536805	4-Bromofluorobenzene	2024/07/25	100	60 - 140	98	60 - 140	93	%		
9536805	D10-o-Xylene	2024/07/25	104	60 - 140	103	60 - 140	102	%		
9536805	D4-1,2-Dichloroethane	2024/07/25	103	60 - 140	105	60 - 140	110	%		
9555822	4-Bromofluorobenzene	2024/08/04	101	60 - 140	101	60 - 140	99	%		
9555822	D10-o-Xylene	2024/08/04	103	60 - 130	99	60 - 130	92	%		
9555822	D4-1,2-Dichloroethane	2024/08/04	102	60 - 140	103	60 - 140	99	%		
9555822	D8-Toluene	2024/08/04	101	60 - 140	100	60 - 140	97	%		
9556535	D10-Anthracene	2024/08/03	82	50 - 130	92	50 - 130	94	%		
9556535	D14-Terphenyl (FS)	2024/08/03	83	50 - 130	90	50 - 130	90	%		
9556535	D8-Acenaphthylene	2024/08/03	77	50 - 130	87	50 - 130	86	%		
9533807	Benzene	2024/07/24	78	50 - 140	90	50 - 140	<0.020	ug/g	NC	50
9533807	Ethylbenzene	2024/07/24	91	50 - 140	102	50 - 140	<0.020	ug/g	NC	50
9533807	F1 (C6-C10) - BTEX	2024/07/24					<10	ug/g	NC	30
9533807	F1 (C6-C10)	2024/07/24	91	60 - 140	102	80 - 120	<10	ug/g	NC	30



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9533807	o-Xylene	2024/07/24	91	50 - 140	103	50 - 140	<0.020	ug/g	NC	50
9533807	p+m-Xylene	2024/07/24	90	50 - 140	100	50 - 140	<0.040	ug/g	NC	50
9533807	Toluene	2024/07/24	80	50 - 140	91	50 - 140	<0.020	ug/g	NC	50
9533807	Total Xylenes	2024/07/24					<0.040	ug/g	NC	50
9534051	WAD Cyanide (Free)	2024/07/24	107	75 - 125	105	80 - 120	<0.01	ug/g	NC	35
9534193	Moisture	2024/07/24							7.0	20
9534286	Moisture	2024/07/24							1.9	20
9535197	1,1,1,2-Tetrachloroethane	2024/07/25	102	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9535197	1,1,1-Trichloroethane	2024/07/25	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9535197	1,1,2,2-Tetrachloroethane	2024/07/25	100	60 - 140	107	60 - 130	<0.040	ug/g	NC	50
9535197	1,1,2-Trichloroethane	2024/07/25	98	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9535197	1,1-Dichloroethane	2024/07/25	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9535197	1,1-Dichloroethylene	2024/07/25	97	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9535197	1,2-Dichlorobenzene	2024/07/25	93	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9535197	1,2-Dichloroethane	2024/07/25	90	60 - 140	95	60 - 130	<0.049	ug/g	NC	50
9535197	1,2-Dichloropropane	2024/07/25	97	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9535197	1,3-Dichlorobenzene	2024/07/25	100	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9535197	1,4-Dichlorobenzene	2024/07/25	98	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9535197	Acetone (2-Propanone)	2024/07/25	88	60 - 140	93	60 - 140	<0.49	ug/g	NC	50
9535197	Benzene	2024/07/25	96	60 - 140	96	60 - 130	<0.0060	ug/g	NC	50
9535197	Bromodichloromethane	2024/07/25	98	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9535197	Bromoform	2024/07/25	104	60 - 140	114	60 - 130	<0.040	ug/g	NC	50
9535197	Bromomethane	2024/07/25	83	60 - 140	80	60 - 140	<0.040	ug/g	NC	50
9535197	Carbon Tetrachloride	2024/07/25	102	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9535197	Chlorobenzene	2024/07/25	95	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9535197	Chloroform	2024/07/25	97	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9535197	cis-1,2-Dichloroethylene	2024/07/25	96	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9535197	cis-1,3-Dichloropropene	2024/07/25	93	60 - 140	92	60 - 130	<0.030	ug/g	NC	50
9535197	Dibromochloromethane	2024/07/25	105	60 - 140	111	60 - 130	<0.040	ug/g	NC	50
9535197	Dichlorodifluoromethane (FREON 12)	2024/07/25	69	60 - 140	68	60 - 140	<0.040	ug/g	NC	50
9535197	Ethylbenzene	2024/07/25	97	60 - 140	94	60 - 130	<0.010	ug/g	NC	50



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9535197	Ethylene Dibromide	2024/07/25	95	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9535197	F1 (C6-C10) - BTEX	2024/07/25					<10	ug/g	NC	30
9535197	F1 (C6-C10)	2024/07/25	100	60 - 140	94	80 - 120	<10	ug/g	NC	30
9535197	Hexane	2024/07/25	98	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9535197	Methyl Ethyl Ketone (2-Butanone)	2024/07/25	90	60 - 140	98	60 - 140	<0.40	ug/g	NC	50
9535197	Methyl Isobutyl Ketone	2024/07/25	86	60 - 140	94	60 - 130	<0.40	ug/g	NC	50
9535197	Methyl t-butyl ether (MTBE)	2024/07/25	84	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9535197	Methylene Chloride(Dichloromethane)	2024/07/25	105	60 - 140	107	60 - 130	<0.049	ug/g	NC	50
9535197	o-Xylene	2024/07/25	95	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
9535197	p+m-Xylene	2024/07/25	94	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
9535197	Styrene	2024/07/25	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9535197	Tetrachloroethylene	2024/07/25	96	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9535197	Toluene	2024/07/25	98	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
9535197	Total Xylenes	2024/07/25					<0.020	ug/g	NC	50
9535197	trans-1,2-Dichloroethylene	2024/07/25	97	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9535197	trans-1,3-Dichloropropene	2024/07/25	100	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9535197	Trichloroethylene	2024/07/25	90	60 - 140	90	60 - 130	<0.010	ug/g	NC	50
9535197	Trichlorofluoromethane (FREON 11)	2024/07/25	96	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9535197	Vinyl Chloride	2024/07/25	90	60 - 140	89	60 - 130	<0.019	ug/g	NC	50
9535223	Available (CaCl2) pH	2024/07/24			100	97 - 103			0.12	N/A
9535282	F2 (C10-C16 Hydrocarbons)	2024/07/25	93	60 - 140	88	80 - 120	<10	ug/g	NC	30
9535282	F3 (C16-C34 Hydrocarbons)	2024/07/25	96	60 - 140	91	80 - 120	<50	ug/g	21	30
9535282	F4 (C34-C50 Hydrocarbons)	2024/07/25	97	60 - 140	91	80 - 120	<50	ug/g	NC	30
9535616	1-Methylnaphthalene	2024/07/24	97	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9535616	2-Methylnaphthalene	2024/07/24	96	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9535616	Acenaphthene	2024/07/24	88	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9535616	Acenaphthylene	2024/07/24	98	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9535616	Anthracene	2024/07/24	92	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9535616	Benzo(a)anthracene	2024/07/24	89	50 - 130	98	50 - 130	<0.0050	ug/g	20	40
9535616	Benzo(a)pyrene	2024/07/24	87	50 - 130	90	50 - 130	<0.0050	ug/g	16	40
9535616	Benzo(b/j)fluoranthene	2024/07/24	89	50 - 130	91	50 - 130	<0.0050	ug/g	15	40



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9535616	Benzo(g,h,i)perylene	2024/07/24	91	50 - 130	88	50 - 130	<0.0050	ug/g	5.6	40
9535616	Benzo(k)fluoranthene	2024/07/24	82	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9535616	Chrysene	2024/07/24	87	50 - 130	96	50 - 130	<0.0050	ug/g	14	40
9535616	Dibenzo(a,h)anthracene	2024/07/24	100	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
9535616	Fluoranthene	2024/07/24	81	50 - 130	97	50 - 130	<0.0050	ug/g	10	40
9535616	Fluorene	2024/07/24	93	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9535616	Indeno(1,2,3-cd)pyrene	2024/07/24	92	50 - 130	89	50 - 130	<0.0050	ug/g	11	40
9535616	Naphthalene	2024/07/24	85	50 - 130	80	50 - 130	<0.0050	ug/g	NC	40
9535616	Phenanthrene	2024/07/24	77	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
9535616	Pyrene	2024/07/24	90	50 - 130	96	50 - 130	<0.0050	ug/g	6.8	40
9536105	1-Methylnaphthalene	2024/07/24	85	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
9536105	2-Methylnaphthalene	2024/07/24	82	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9536105	Acenaphthene	2024/07/24	94	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
9536105	Acenaphthylene	2024/07/24	90	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
9536105	Anthracene	2024/07/24	97	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
9536105	Benzo(a)anthracene	2024/07/24	89	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
9536105	Benzo(a)pyrene	2024/07/24	83	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9536105	Benzo(b/j)fluoranthene	2024/07/24	90	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9536105	Benzo(g,h,i)perylene	2024/07/24	79	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
9536105	Benzo(k)fluoranthene	2024/07/24	89	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
9536105	Chrysene	2024/07/24	92	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9536105	Dibenzo(a,h)anthracene	2024/07/24	80	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
9536105	Fluoranthene	2024/07/24	90	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40
9536105	Fluorene	2024/07/24	91	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
9536105	Indeno(1,2,3-cd)pyrene	2024/07/24	86	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
9536105	Naphthalene	2024/07/24	78	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9536105	Phenanthrene	2024/07/24	92	50 - 130	107	50 - 130	<0.0050	ug/g	NC	40
9536105	Pyrene	2024/07/24	99	50 - 130	114	50 - 130	<0.0050	ug/g	NC	40
9536324	F2 (C10-C16 Hydrocarbons)	2024/07/24	94	60 - 140	89	80 - 120	<10	ug/g	NC	30
9536324	F3 (C16-C34 Hydrocarbons)	2024/07/24	105	60 - 140	100	80 - 120	<50	ug/g	NC	30
9536324	F4 (C34-C50 Hydrocarbons)	2024/07/24	107	60 - 140	103	80 - 120	<50	ug/g	NC	30



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9536805	Benzene	2024/07/25	89	50 - 140	99	50 - 140	<0.020	ug/g	NC	50
9536805	Ethylbenzene	2024/07/25	93	50 - 140	99	50 - 140	<0.020	ug/g	NC	50
9536805	F1 (C6-C10) - BTEX	2024/07/25					<10	ug/g	NC	30
9536805	F1 (C6-C10)	2024/07/25	93	60 - 140	103	80 - 120	<10	ug/g	NC	30
9536805	o-Xylene	2024/07/25	89	50 - 140	98	50 - 140	<0.020	ug/g	NC	50
9536805	p+m-Xylene	2024/07/25	93	50 - 140	101	50 - 140	<0.040	ug/g	NC	50
9536805	Toluene	2024/07/25	86	50 - 140	94	50 - 140	<0.020	ug/g	NC	50
9536805	Total Xylenes	2024/07/25					<0.040	ug/g	NC	50
9536965	Chromium (VI)	2024/07/25	86	70 - 130	92	80 - 120	<0.18	ug/g	NC	35
9537036	Conductivity	2024/07/25			101	90 - 110	<0.002	mS/cm	2.7	10
9537093	Acid Extractable Antimony (Sb)	2024/07/25	85	75 - 125	95	80 - 120	<0.20	ug/g	9.9	30
9537093	Acid Extractable Arsenic (As)	2024/07/25	99	75 - 125	94	80 - 120	<1.0	ug/g	2.0	30
9537093	Acid Extractable Barium (Ba)	2024/07/25	NC	75 - 125	95	80 - 120	<0.50	ug/g	3.1	30
9537093	Acid Extractable Beryllium (Be)	2024/07/25	95	75 - 125	94	80 - 120	<0.20	ug/g	7.1	30
9537093	Acid Extractable Boron (B)	2024/07/25	81	75 - 125	100	80 - 120	<5.0	ug/g	3.7	30
9537093	Acid Extractable Cadmium (Cd)	2024/07/25	94	75 - 125	89	80 - 120	<0.10	ug/g	2.1	30
9537093	Acid Extractable Chromium (Cr)	2024/07/25	NC	75 - 125	93	80 - 120	<1.0	ug/g	5.3	30
9537093	Acid Extractable Cobalt (Co)	2024/07/25	NC	75 - 125	94	80 - 120	<0.10	ug/g	3.2	30
9537093	Acid Extractable Copper (Cu)	2024/07/25	NC	75 - 125	91	80 - 120	<0.50	ug/g	4.2	30
9537093	Acid Extractable Lead (Pb)	2024/07/25	NC	75 - 125	94	80 - 120	<1.0	ug/g	14	30
9537093	Acid Extractable Mercury (Hg)	2024/07/25	103	75 - 125	99	80 - 120	<0.050	ug/g	4.9	30
9537093	Acid Extractable Molybdenum (Mo)	2024/07/25	91	75 - 125	87	80 - 120	<0.50	ug/g	8.2	30
9537093	Acid Extractable Nickel (Ni)	2024/07/25	NC	75 - 125	96	80 - 120	<0.50	ug/g	2.9	30
9537093	Acid Extractable Selenium (Se)	2024/07/25	95	75 - 125	94	80 - 120	<0.50	ug/g	NC	30
9537093	Acid Extractable Silver (Ag)	2024/07/25	96	75 - 125	91	80 - 120	<0.20	ug/g	NC	30
9537093	Acid Extractable Thallium (Tl)	2024/07/25	98	75 - 125	96	80 - 120	<0.050	ug/g	5.5	30
9537093	Acid Extractable Uranium (U)	2024/07/25	100	75 - 125	96	80 - 120	<0.050	ug/g	4.1	30
9537093	Acid Extractable Vanadium (V)	2024/07/25	NC	75 - 125	95	80 - 120	<5.0	ug/g	1.5	30
9537093	Acid Extractable Zinc (Zn)	2024/07/25	NC	75 - 125	95	80 - 120	<5.0	ug/g	2.4	30
9537133	Hot Water Ext. Boron (B)	2024/07/25	114	75 - 125	105	75 - 125	<0.050	ug/g	3.8	40
9537692	Acid Extractable Antimony (Sb)	2024/07/25	125	75 - 125	118	80 - 120	<0.20	ug/g	NC	30



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9537692	Acid Extractable Arsenic (As)	2024/07/25	106	75 - 125	100	80 - 120	<1.0	ug/g	4.6	30
9537692	Acid Extractable Barium (Ba)	2024/07/25	NC	75 - 125	100	80 - 120	<0.50	ug/g	1.8	30
9537692	Acid Extractable Beryllium (Be)	2024/07/25	106	75 - 125	99	80 - 120	<0.20	ug/g	2.4	30
9537692	Acid Extractable Boron (B)	2024/07/25	99	75 - 125	96	80 - 120	<5.0	ug/g	NC	30
9537692	Acid Extractable Cadmium (Cd)	2024/07/25	105	75 - 125	97	80 - 120	<0.10	ug/g	NC	30
9537692	Acid Extractable Chromium (Cr)	2024/07/25	109	75 - 125	99	80 - 120	<1.0	ug/g	0.49	30
9537692	Acid Extractable Cobalt (Co)	2024/07/25	106	75 - 125	100	80 - 120	<0.10	ug/g	1.9	30
9537692	Acid Extractable Copper (Cu)	2024/07/25	102	75 - 125	98	80 - 120	<0.50	ug/g	1.2	30
9537692	Acid Extractable Lead (Pb)	2024/07/25	104	75 - 125	100	80 - 120	<1.0	ug/g	2.3	30
9537692	Acid Extractable Molybdenum (Mo)	2024/07/25	106	75 - 125	99	80 - 120	<0.50	ug/g	0.68	30
9537692	Acid Extractable Nickel (Ni)	2024/07/25	106	75 - 125	102	80 - 120	<0.50	ug/g	1.6	30
9537692	Acid Extractable Selenium (Se)	2024/07/25	110	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
9537692	Acid Extractable Silver (Ag)	2024/07/25	104	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
9537692	Acid Extractable Thallium (Tl)	2024/07/25	104	75 - 125	100	80 - 120	<0.050	ug/g	8.7	30
9537692	Acid Extractable Uranium (U)	2024/07/25	108	75 - 125	102	80 - 120	<0.050	ug/g	1.7	30
9537692	Acid Extractable Vanadium (V)	2024/07/25	111	75 - 125	103	80 - 120	<5.0	ug/g	0.56	30
9537692	Acid Extractable Zinc (Zn)	2024/07/25	106	75 - 125	102	80 - 120	<5.0	ug/g	0.74	30
9555530	Moisture	2024/08/02							6.3	20
9555822	1,1,1,2-Tetrachloroethane	2024/08/04	89	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9555822	1,1,1-Trichloroethane	2024/08/04	92	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9555822	1,1,2,2-Tetrachloroethane	2024/08/04	84	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9555822	1,1,2-Trichloroethane	2024/08/04	88	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
9555822	1,1-Dichloroethane	2024/08/04	90	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9555822	1,1-Dichloroethylene	2024/08/04	94	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9555822	1,2-Dichlorobenzene	2024/08/04	90	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9555822	1,2-Dichloroethane	2024/08/04	93	60 - 140	91	60 - 130	<0.049	ug/g	NC	50
9555822	1,2-Dichloropropane	2024/08/04	88	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9555822	1,3-Dichlorobenzene	2024/08/04	93	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9555822	1,4-Dichlorobenzene	2024/08/04	90	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
9555822	Acetone (2-Propanone)	2024/08/04	95	60 - 140	93	60 - 140	<0.49	ug/g	NC	50
9555822	Benzene	2024/08/04	90	60 - 140	87	60 - 130	<0.0060	ug/g	NC	50



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VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9555822	Bromodichloromethane	2024/08/04	89	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	Bromoform	2024/08/04	84	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9555822	Bromomethane	2024/08/04	81	60 - 140	76	60 - 140	<0.040	ug/g	NC	50
9555822	Carbon Tetrachloride	2024/08/04	91	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	Chlorobenzene	2024/08/04	90	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9555822	Chloroform	2024/08/04	91	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	cis-1,2-Dichloroethylene	2024/08/04	90	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9555822	cis-1,3-Dichloropropene	2024/08/04	91	60 - 140	91	60 - 130	<0.030	ug/g	NC	50
9555822	Dibromochloromethane	2024/08/04	88	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
9555822	Dichlorodifluoromethane (FREON 12)	2024/08/04	76	60 - 140	70	60 - 140	<0.040	ug/g	NC	50
9555822	Ethylbenzene	2024/08/04	92	60 - 140	88	60 - 130	<0.010	ug/g	NC	50
9555822	Ethylene Dibromide	2024/08/04	90	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	Hexane	2024/08/04	96	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9555822	Methyl Ethyl Ketone (2-Butanone)	2024/08/04	92	60 - 140	94	60 - 140	<0.40	ug/g	NC	50
9555822	Methyl Isobutyl Ketone	2024/08/04	87	60 - 140	91	60 - 130	<0.40	ug/g	NC	50
9555822	Methyl t-butyl ether (MTBE)	2024/08/04	89	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	Methylene Chloride(Dichloromethane)	2024/08/04	84	60 - 140	81	60 - 130	<0.049	ug/g	NC	50
9555822	o-Xylene	2024/08/04	92	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
9555822	p+m-Xylene	2024/08/04	92	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
9555822	Styrene	2024/08/04	93	60 - 140	89	60 - 130	<0.040	ug/g	NC	50
9555822	Tetrachloroethylene	2024/08/04	93	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9555822	Toluene	2024/08/04	90	60 - 140	86	60 - 130	<0.020	ug/g	NC	50
9555822	Total Xylenes	2024/08/04					<0.020	ug/g	NC	50
9555822	trans-1,2-Dichloroethylene	2024/08/04	92	60 - 140	88	60 - 130	<0.040	ug/g	NC	50
9555822	trans-1,3-Dichloropropene	2024/08/04	94	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9555822	Trichloroethylene	2024/08/04	91	60 - 140	88	60 - 130	<0.010	ug/g	NC	50
9555822	Trichlorofluoromethane (FREON 11)	2024/08/04	96	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9555822	Vinyl Chloride	2024/08/04	87	60 - 140	82	60 - 130	<0.019	ug/g	NC	50
9556535	1-Methylnaphthalene	2024/08/03	85	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9556535	2-Methylnaphthalene	2024/08/03	85	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9556535	Acenaphthene	2024/08/03	82	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9556535	Acenaphthylene	2024/08/03	78	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9556535	Anthracene	2024/08/03	79	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
9556535	Benzo(a)anthracene	2024/08/03	93	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
9556535	Benzo(a)pyrene	2024/08/03	87	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
9556535	Benzo(b,j)fluoranthene	2024/08/03	82	50 - 130	91	50 - 130	<0.0050	ug/g	5.9	40
9556535	Benzo(g,h,i)perylene	2024/08/03	85	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9556535	Benzo(k)fluoranthene	2024/08/03	87	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
9556535	Chrysene	2024/08/03	88	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
9556535	Dibenzo(a,h)anthracene	2024/08/03	92	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
9556535	Fluoranthene	2024/08/03	85	50 - 130	92	50 - 130	<0.0050	ug/g	5.2	40
9556535	Fluorene	2024/08/03	83	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
9556535	Indeno(1,2,3-cd)pyrene	2024/08/03	86	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
9556535	Naphthalene	2024/08/03	80	50 - 130	88	50 - 130	<0.0050	ug/g	NC	40
9556535	Phenanthrene	2024/08/03	81	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
9556535	Pyrene	2024/08/03	83	50 - 130	90	50 - 130	<0.0050	ug/g	2.2	40
9556679	Chromium (VI)	2024/08/06	0.0000 (1)	70 - 130	95	80 - 120	<0.18	ug/g	NC	35
9557933	WAD Cyanide (Free)	2024/08/06	100	75 - 125	107	80 - 120	<0.01	ug/g	NC	35
9557958	Conductivity	2024/08/06			102	90 - 110	<0.002	mS/cm	1.7	10
9558028	Acid Extractable Antimony (Sb)	2024/08/06	88	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
9558028	Acid Extractable Arsenic (As)	2024/08/06	97	75 - 125	97	80 - 120	<1.0	ug/g	5.5	30
9558028	Acid Extractable Barium (Ba)	2024/08/06	NC	75 - 125	91	80 - 120	<0.50	ug/g	4.0	30
9558028	Acid Extractable Beryllium (Be)	2024/08/06	96	75 - 125	95	80 - 120	<0.20	ug/g	5.4	30
9558028	Acid Extractable Boron (B)	2024/08/06	79	75 - 125	93	80 - 120	<5.0	ug/g	NC	30
9558028	Acid Extractable Cadmium (Cd)	2024/08/06	93	75 - 125	95	80 - 120	<0.10	ug/g	NC	30
9558028	Acid Extractable Chromium (Cr)	2024/08/06	98	75 - 125	97	80 - 120	<1.0	ug/g	0.63	30
9558028	Acid Extractable Cobalt (Co)	2024/08/06	103	75 - 125	103	80 - 120	<0.10	ug/g	3.4	30
9558028	Acid Extractable Copper (Cu)	2024/08/06	94	75 - 125	95	80 - 120	<0.50	ug/g	0.73	30
9558028	Acid Extractable Lead (Pb)	2024/08/06	100	75 - 125	102	80 - 120	<1.0	ug/g	0.98	30
9558028	Acid Extractable Mercury (Hg)	2024/08/06	107	75 - 125	104	80 - 120	<0.050	ug/g	NC	30
9558028	Acid Extractable Molybdenum (Mo)	2024/08/06	90	75 - 125	93	80 - 120	<0.50	ug/g	NC	30
9558028	Acid Extractable Nickel (Ni)	2024/08/06	102	75 - 125	105	80 - 120	<0.50	ug/g	0.92	30



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907

Report Date: 2024/08/15

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 24-197-100

Site Location: 1850 MAYFIELD

Sampler Initials: MB

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9558028	Acid Extractable Selenium (Se)	2024/08/06	100	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
9558028	Acid Extractable Silver (Ag)	2024/08/06	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
9558028	Acid Extractable Thallium (Tl)	2024/08/06	103	75 - 125	103	80 - 120	<0.050	ug/g	2.1	30
9558028	Acid Extractable Uranium (U)	2024/08/06	104	75 - 125	104	80 - 120	<0.050	ug/g	0.55	30
9558028	Acid Extractable Vanadium (V)	2024/08/06	NC	75 - 125	101	80 - 120	<5.0	ug/g	1.9	30
9558028	Acid Extractable Zinc (Zn)	2024/08/06	NC	75 - 125	102	80 - 120	<5.0	ug/g	0.78	30
9558079	Available (CaCl2) pH	2024/08/06			100	97 - 103			0.35	N/A
9558141	Hot Water Ext. Boron (B)	2024/08/06	103	75 - 125	105	75 - 125	<0.050	ug/g	14	40
9572025	WAD Cyanide (Free)	2024/08/13	104	75 - 125	100	80 - 120	<0.01	ug/g	NC	35
9572208	Conductivity	2024/08/13			102	90 - 110	<0.002	mS/cm	0.88	10
9573049	Available (CaCl2) pH	2024/08/13			100	97 - 103			0.62	N/A
9574976	Chromium (VI)	2024/08/14	81	70 - 130	90	80 - 120	<0.18	ug/g	NC	35
9577807	Hot Water Ext. Boron (B)	2024/08/15	105	75 - 125	105	75 - 125	<0.050	ug/g	15	40
9578041	Hot Water Ext. Boron (B)	2024/08/15	108	75 - 125	96	75 - 125	<0.050	ug/g	1.7	40

N/A = Not Applicable

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

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

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

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

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

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

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

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



BUREAU
VERITAS

Bureau Veritas Job #: C4M0907
Report Date: 2024/08/15

DS Consultants Limited
Client Project #: 24-197-100
Site Location: 1850 MAYFIELD
Sampler Initials: MB

VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Supervisor-Afternoon Shift

Cristina Carriere, Senior Scientific Specialist

Louise Harding, Team Lead

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.

C4M0907
2024/07/18 17:18



6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

CHAIN OF CUSTODY RECORD
ENV COC - 00014v5



NONT-2024-07-2472

Invoice Information		Report Information (if differs from invoice)		Project Information	
Company:	AS	Company:		Quotation #:	
Contact Name:	Accounting	Contact Name:		P.O. #/ AFER:	
Street Address:		Street Address:		Project #:	24-1947-300
City:		City:	Cambridge	Site #:	
Prov:		Prov:	ON	Site Location:	1850 Mayfield
Postal Code:		Postal Code:		Site Location Province:	ON
Phone:		Phone:		Sampled By:	Megan + Isabel
Email:		Email:	K.clarke@diconsult		
Copies:		Copies:	mberde c		
Regulatory Criteria <input checked="" type="checkbox"/> Table 1 <input type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine <input checked="" type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agr/other <input type="checkbox"/> For RSC <input type="checkbox"/> Table _____ Include Criteria on Certificate of Analysis (check if yes): <u>BY</u> SAMPLES MUST BE KEPT COOL (-10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS		<input type="checkbox"/> CCME <input type="checkbox"/> Reg 406, Table: <input type="checkbox"/> Reg 558* <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> *min 3 day TAT <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> MISA <input type="checkbox"/> Municipality <input type="checkbox"/> PWQO <input type="checkbox"/> Other:		Regular Turnaround Time (TAT) <input checked="" type="checkbox"/> 5 to 7 Day <input type="checkbox"/> 10 Day Rush Turnaround Time (TAT) Surcharges apply <input type="checkbox"/> Same Day <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Day <input type="checkbox"/> 3 Day <input type="checkbox"/> 4 Day	
Sample Identification (Please print or Type) Date Sampled: YYYY MM DD Time (24hr): HH MM Matrix:		1 FIELD FILTERED 2 FIELD PRESERVED 3 LAB FILTRATION REQUIRED 4 BTEX/F1 5 P2 - F4 6 VOCs 7 Reg 153 metals and inorganics 8 Reg 153 (CPMS) metals 9 Reg 153 metals (Hg, Cr VI, CPMS metals, HWS - B) 10 SPAN 11 12		# OF CONTAINERS SUBMITTED HOLD - DO NOT ANALYZE Date Required: YYYY MM DD Comments:	
1 BH24-9		2024 07 18 PM		Soil	
2 " -10					
3 " -11					
4 " -12					
5 " -13					
6 " -14					
7 " -15					
8 " -16					
9 " -17					
10 " -18					
11 " -19					
12 "					
*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY					
LAB USE ONLY Seal present: Yes No Seal intact: Yes No Cooling media present: Yes No		18 17 19 °C		LAB USE ONLY Seal present: Yes No Seal intact: Yes No Cooling media present: Yes No	
Relinquished by: (Signature/ Print) Isabel Bouies		Date: YYYY MM DD 2024 07 18 PM		Received by: (Signature/ Print) [Signature]	
Relinquished by: (Signature/ Print) [Signature]		Date: YYYY MM DD 2024 07 18 PM		Received by: (Signature/ Print) [Signature]	
				Special Instructions 	



Your Project #: 24-197-100
 Site Location: MAYFIELD
 Your C.O.C. #: N/A

Attention: Keith Clarke

DS Consultants Limited
 6221 Highway 7, Unit 16
 Vaughan, ON
 CANADA L4H 0K8

Report Date: 2024/08/02
 Report #: R8261452
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4N0189

Received: 2024/07/26, 14:57

Sample Matrix: Soil
 # Samples Received: 2

Analyses	Date		Laboratory Method	Analytical Method
	Quantity Extracted	Analyzed		
pH CaCl2 EXTRACT	2	2024/08/01	2024/08/01	CAM SOP-00413 EPA 9045 D m

Remarks:

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

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

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

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

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

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.



Your Project #: 24-197-100
Site Location: MAYFIELD
Your C.O.C. #: N/A

Attention: Keith Clarke

DS Consultants Limited
6221 Highway 7, Unit 16
Vaughan, ON
CANADA L4H 0K8

Report Date: 2024/08/02
Report #: R8261452
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4N0189

Received: 2024/07/26, 14:57

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Ashton Gibson, Project Manager
Email: ashton.gibson@bureauveritas.com
Phone# (905)817-5765

=====
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.



**BUREAU
VERITAS**

Bureau Veritas Job #: C4N0189
Report Date: 2024/08/02

DS Consultants Limited
Client Project #: 24-197-100
Site Location: MAYFIELD

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ZV0042	ZV0043	
Sampling Date		2024/07/25	2024/07/25	
COC Number		N/A	N/A	
	UNITS	BH24-2 SS3	BH24-6 SS3	QC Batch
Inorganics				
Available (CaCl2) pH	pH	7.89	7.78	9551961
QC Batch = Quality Control Batch				



**BUREAU
VERITAS**

Bureau Veritas Job #: C4N0189
Report Date: 2024/08/02

DS Consultants Limited
Client Project #: 24-197-100
Site Location: MAYFIELD

TEST SUMMARY

Bureau Veritas ID: ZVO042
Sample ID: BH24-2 SS3
Matrix: Soil

Collected: 2024/07/25
Shipped:
Received: 2024/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9551961	2024/08/01	2024/08/01	Kien Tran

Bureau Veritas ID: ZVO043
Sample ID: BH24-6 SS3
Matrix: Soil

Collected: 2024/07/25
Shipped:
Received: 2024/07/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	9551961	2024/08/01	2024/08/01	Kien Tran



BUREAU
VERITAS

Bureau Veritas Job #: C4N0189
Report Date: 2024/08/02

DS Consultants Limited
Client Project #: 24-197-100
Site Location: MAYFIELD

GENERAL COMMENTS

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

Package 1	2.0°C
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Results relate only to the items tested.



BUREAU
VERITAS

Bureau Veritas Job #: C4N0189
Report Date: 2024/08/02

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 24-197-100
Site Location: MAYFIELD

QC Batch	Parameter	Date	SPIKED BLANK		RPD	
			% Recovery	QC Limits	Value (%)	QC Limits
9551961	Available (CaCl2) pH	2024/08/01	100	97 - 103	0.95	N/A

N/A = Not Applicable

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

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



BUREAU
VERITAS

Bureau Veritas Job #: C4N0189
Report Date: 2024/08/02

DS Consultants Limited
Client Project #: 24-197-100
Site Location: MAYFIELD

VALIDATION SIGNATURE PAGE

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

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

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



NONT-2024-07-4622

Invoice Information Invoice to (requires report) <input type="checkbox"/>			Report Information (if differs from invoice)			Project Information		
Company: DS			Company: DS			Quotation #:		
Contact Name: Accounting			Contact Name: Keith Clarke			P.O. #/ AFEM:		
Street Address:			Street Address: ku			Project #: 24-197-100		
City: Prov: Postal Code:			City: Cambridge Prov: ON Postal Code:			Site #:		
Phone:			Phone:			Site Location: Mayfield		
Email:			Email: kclarke@dsconsultants.ca			Site Location Province: ON		
Copies:			Copies: mbende@			Sampled By: Unknown		

Regulatory Criteria				Regular Turnaround Time (TAT)																						
REG 153				Regular Turnaround Time (TAT)																						
<input type="checkbox"/> Table 1	<input type="checkbox"/> Res/Park	<input type="checkbox"/> Med/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Reg 406, Table:																						
<input checked="" type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558*	<input type="checkbox"/> Sanitary Sewer Bylaw																						
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/other	<input type="checkbox"/> For RSC	<input type="checkbox"/> *min 3 day TAT	<input type="checkbox"/> Storm Sewer Bylaw																						
<input type="checkbox"/> Table			<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality																						
				<input type="checkbox"/> PWQO	<input type="checkbox"/> Other:																					
Include Criteria on Certificate of Analysis (check if yes): <input checked="" type="checkbox"/>																										
SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS																										
Sample Identification		Date Sampled			Time (24hr)		Matrix																			
print or Type		YYYY	MM	DD	HH	MM																				
1	BH24-2 SS3	2024	07	25			Soil																			
2	BH24-6 SS3																									
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										

*UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS AND CONDITIONS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/TERMS-AND-CONDITIONS OR BY CALLING THE LABORATORY LISTED ABOVE TO OBTAIN A COPY

LAB USE ONLY			Yes	No	°C	LAB USE ONLY			Yes	No	°C	LAB USE ONLY			Yes	No	°C	Temperature reading by:			
Seal present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Seal present			<input type="checkbox"/>	<input type="checkbox"/>	Seal present				<input type="checkbox"/>	<input type="checkbox"/>	Seal present					<input type="checkbox"/>	<input type="checkbox"/>	
Seal intact	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Seal intact			<input type="checkbox"/>	<input type="checkbox"/>	Seal intact				<input type="checkbox"/>	<input type="checkbox"/>	Seal intact					<input type="checkbox"/>	<input type="checkbox"/>	
Cooling media present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	2	3	Cooling media present			1	2	3	Cooling media present			1	2	3				
Relinquished by: (Signature/ Print)		Date			Time		Received by: (Signature/ Print)		Date			Time		Special Instructions							
Sabir Bowers		YYYY	MM	DD	HH	MM			YYYY	MM	DD	HH	MM								
SA		2024	07	25					2024	07	26	14	57								



Appendix E



Phase Two Conceptual Site Model

This Phase Two Conceptual Site Model has been prepared for the property comprised of 1850 and 1890 Mayfield Road, Caledon, Ontario, herein referred to as the “Site”. This Phase Two CSM was developed through a synthesis of the information obtained through the completion of the Phase One ESA, and the data collected as part of the Phase Two ESA. The Phase Two CSM is comprised of the following Figures and text.

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Phase One Property Site Plan

Figure 3 – Phase One Study Area

Figure 4 – PCA within Phase One Study Area

Figure 5 – Borehole/Monitoring Well Locations Plan with APECs

Figure 6 – Soil Characterization – Metals and ORPs

Figure 7 – Soil Characterization – PHCs and BTEX

Figure 8 – Soil Characterization – VOCs

Figure 9 – Soil Characterization – PAHs

Figure 10A – Contaminant Transport Diagram

Figure 10B – Contaminant Transport Diagram

The Phase One Property is an 8.566-hectare (21.17 acres) parcel of land situated within a rural neighbourhood in the Town of Caledon, Ontario. The Phase One Property is located approximately 255 m southwest of the intersection of Mayfield Road and Chinguacousy Road and was occupied by agricultural fields at the time of this investigation.

The Phase One ESA completed in July 2024 indicated that the Phase Two Property was first developed for residential purposes between 1954 and 1965. The residential houses were demolished between October 2019 and July 2020 and has been used for agricultural purposes. A total of eight (8) Potentially Contaminating Activities (PCAs) were identified in the Phase One ESA, which were considered to be contributing to three (3) APECs on the Phase Two Property, associated with the following uses:

- ♦ According to the 2009 aerial imagery, fill materials may have been placed on the central portion of the Phase One Property, along the eastern limit of 1850 Mayfield Road; and



-
- ♦ Evidence of potential placement of fill material is visible in satellite imagery from June 2015 in the northeast corner of 1890 Mayfield Road.
 - ♦ A small stockpile of yard waste and building demolition rubble was observed on the Phase One Property. The potential for adverse impact to the underlying soils is considered to be low, however this material will require disposal in the future.
 - ♦ Fill material was encountered in the vicinity of Former House 2.
 - ♦ The neighbouring properties within the Phase One Study Area appear to have been used for residential purposes since the 1960s. Mayfield road has been present to the east of the Site since the 1860s and is likely subject to seasonal de-icing activities.

The Phase Two ESA was completed concurrently with the geotechnical investigation. The Geotechnical investigation involved the advancement of eight (8) boreholes, to a maximum depth of 6.7 mbgs which were completed between July 8 and 9, 2024, and the environmental investigation included an additional 16 shallow boreholes to a depth of 0.5 mbgs on July 18, 2024 and August 12, 2024 under the supervision of DS personnel. Groundwater monitoring wells were installed in four (4) of the boreholes for the assessment of groundwater flow direction. The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes in accordance with the requirements of O.Reg. 153/04 (as amended). Soil samples were collected and submitted for analysis of all PCOCs, including: metals, As, Sb, Se, B-HWS, CN-, Cr(VI), Hg, pH, EC, SAR, PHCs, VOCs, and PAHs.

The soil analytical results were compared to the “Table 2: Full Depth Generic Site Condition Standards for Residential/Parkland/Institutional Use” provided in the MECP document entitled, “*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*” dated April 15, 2011 (Table 2 Standards) for medium and fine-textured soils and residential/parkland/institutional property use.

The results of the chemical analyses for soil indicated that the reported detection limit for VOCs exceeded the SCS for BH24-11 and BH24-13. Two (2) additional samples were collected from within 0.5 m of the original borehole and submitted for analysis of VOCs to confirm the results. The results indicated that the samples met the MECP Table 2 SCS, however the reported laboratory detection limits were elevated in two soil samples shown below:



Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH24-11	0.0-0.5	Bromomethane	ug/g	0.05	<0.080
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
		1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080
		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
		1,2-Dichloropropene	ug/g	0.081	<0.10
BH24-13	0.0-0.5	Bromomethane	ug/g	0.05	<0.080
		1,2-Dichloroethane	ug/g	0.05	<0.098
		1,1-Dichloroethylene	ug/g	0.05	<0.080
		Ethylene Dibromide	ug/g	0.05	<0.080
		1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.080
		1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.080
		1,1,2-Trichloroethane	ug/g	0.05	<0.080
		Vinyl Chloride	ug/g	0.022	<0.038
		1,2-Dichloropropene	ug/g	0.081	<0.10

Notes:

- Sample exceeds Table 2 SCS

- Detection limit exceeds Table 2 SCS

Two (2) additional samples, BH24-11A and BH24-13A, were collected from within 0.5 m of the original boreholes and submitted for VOCs. The results indicated that the samples met the MECP Table 2 SCS.

It is the opinion of the QP_{ESA} that the applicable SCS for the soil and groundwater at the Phase Two Property have been met as of the Certification Date of September 12, 2024. No further sub-surface investigation is required regarding the environmental quality of the soil and groundwater at the Phase Two Property.



I. Description and Assessment of:

A. Areas where potentially contaminating activity has occurred

A total of eight (8) PCAs were identified in the Phase One ESA. A summary of the PCAs considered to be contributing to APECs on the Phase Two Property is provided in the table below.

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-5	#30 – Importation of Fill Material of Unknown Quality	According to the 2009 aerial imagery, fill materials may have been placed on the central portion of the Phase One Property, along the eastern limit of 1850 Mayfield Road.	Yes – APEC-1
PCA-6	#N/S – Seasonal De-icing Activities	The adjacent roadway, Mayfield Road, is likely subject to seasonal de-icing activities.	Yes – APEC-2
PCA-7	#30 – Importation of Fill Material of Unknown Quality	Evidence of potential placement of fill material is visible in satellite imagery from June 2015 in the northeast corner of 1890 Mayfield Road.	Yes – APEC-3
PCA-9	#30 – Importation of Fill Material of Unknown Quality	Fill material was encountered in the vicinity of Former House 2.	Yes – APEC-4

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

B. Areas of potential environmental concern

A total of three (3) APECs were identified to be present on the Phase Two Property through the completion of the Phase One ESA. A summary of the APECs identified, and the associated PCOCs is provided in the table below.

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Central portion of Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-5	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil



Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-2	South portion of Property	#N/S – Seasonal De-icing Activities	Off Site PCA-6	EC, SAR	Soil
				Na, Cl-	Groundwater
APEC-3	Northeast portion of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-7	PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil
APEC-4	Southeast portion of the Property	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-9	Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Hg, low or high pH, PAHs	Soil

N/S - not specified in Table 2, Schedule D, of O.Reg. 153/04

C. Any subsurface structures and utilities on, in or under the Phase Two Property that may affect contaminant distribution and transport

The groundwater table was encountered at depths ranging from 0.5 to 1.3 mbgs on the Phase Two Property. No buried utility services are present on the Phase Two Property and are therefore not considered to be a potential preferential pathway for contaminant migration in groundwater.

II. Description of, and as appropriate, figures illustrating, the physical setting of the Phase Two Property and any areas under it including:

A. Stratigraphy from ground surface to the deepest aquifer or aquitard investigated

A surficial layer of topsoil approximately 250 to 280 mm in thickness was encountered in all of the boreholes advanced with the exception of BH24-8 which encountered fill material of silty sand at the surface to a depth of 0.8 mbgs. Reworked native clayey silt was encountered in all boreholes and was 0.5 to 1.2 m in thickness. The native overburden material encountered below the fill material consisted of clayey silt to silty clay till, with trace



amounts of sand and gravel. The clayey silt till unit extended to borehole termination at 6.7 mbgs. A seam of silty sand was encountered in BH24-3 with a thickness of 0.5 m and BH24-6 with a thickness of 1.3 m. BH24-3 encountered sandy silt till below the clayey silt till with a thickness of 0.4 m. Bedrock was not encountered at this time.

The borehole locations are depicted on Figure 5. A visual representation of the stratigraphy investigated is presented on the borehole logs in Appendix C.

B. Hydrogeological Characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients

The groundwater table was encountered in a clayey silt to silty clay till unit, which is considered to be an unconfined aquifer.

Based on the groundwater elevations, the groundwater flow direction is interpreted to be southerly towards the Credit River. The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on July 23, 2024.

Table 5-1: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – (clayey silt to silty clay till)	Minimum: 0.00375 Average: 0.00492 Maximum: 0.00592

The vertical hydraulic gradient was not calculated, as no groundwater impacts were identified on the Phase Two Property.

C. Depth to bedrock

Bedrock was not encountered during this investigation. Based on a review of MECP Well Records, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 19 to 32 mbgs.

D. Approximate depth to water table

The depth to groundwater was found to range between 0.5 to 1.3 mbgs on July 23, 2024.



E. Any respect in which sections 35, 41 or 43.1 of the regulation applies to the property

Section 35

Section 35 is not applicable as the Town of Caledon relies on groundwater for potable water.

Section 41

The pH values measured for both surface and sub-surface soil samples were within the acceptable limits for non-sensitive sites. There are no areas of natural significance on the Phase Two Property, or within 30 m of the Phase Two Property. As such the Phase Two Property is not considered to be environmentally sensitive as defined by Section 41.

Section 43.1

The Phase Two Property is not considered a shallow soil property, nor are there any bodies of water within 30m of the Phase Two Property. Section 43.1 is not applicable.

F. Areas on, in or under the Phase Two Property where excess soil is finally placed

According to the 2009 aerial imagery, fill materials may have been placed on the central portion of the Phase One Property, along the eastern limit of 1850 Mayfield Road. Evidence of potential placement of fill material is visible in satellite imagery from June 2015 in the northeast corner of 1890 Mayfield Road. Fill material was also encountered in the vicinity of Former House 2.

G. Approximate locations, if known, of any proposed buildings and other structures

It is our understanding that redevelopment of the Site for residential purposes has been proposed, and that the development will feature a low-rise residential community.

III. Where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, identification of

A. Each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable SCS



All of the soil samples analyzed met the MECP Table 2 SCS. Plans depicting the sample locations and chemical analyses are provided in Figures 6 to 9.

B. The contaminants associated with each of the areas

All of the soil samples analyzed met the MECP Table 2 SCS.

C. Medium that contaminants were identified in

All of the soil samples analyzed met the MECP Table 2 SCS.

D. Description and assessment of what is know about each of the areas

APEC-1 and APEC-3 are associated with the importation of fill material on the central and north portions of the Phase Two Property. The soil quality was demonstrated to meet the MECP Table 2 SCS.

APEC-2 is associated with seasonal de-icing activities which are exempt under Section 49.1 (1) of O.Reg. 153/04.

APEC-4 is associated with the fill material in the vicinity of Former House 2. The soil quality was demonstrated to meet the MECP Table 2 SCS.

E. Distribution in which the areas of each contaminant is present in the area at a concentration greater than the applicable SCS, for each medium in which the contaminant is present, together with figures showing the distribution

Not applicable – all of the soil samples analyzed met the MECP Table 2 SCS.

F. Anything know about the reason for the discharge of the contaminants present on, in or under the Phase Two Property at a concentrations greater than the applicable SCS

APEC-1 and APEC-3 are associated with the importation of fill material on the central and north portions of the Phase Two Property. The soil quality was demonstrated to meet the MECP Table 2 SCS.

APEC-4 is associated with the fill material in the vicinity of Former House 2. The soil quality was demonstrated to meet the MECP Table 2 SCS.



G. Anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable SCS away from any area of potential environmental concern, including the identification of any preferential pathways

Not applicable - contaminant concentrations were below the MECP Table 2 SCS. Contaminant migration is not considered to be an issue of concern with respect to soil quality at the Site.

H. Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in groundwater levels

The groundwater level was measured on July 23, 2024. The groundwater levels were found to range from 0.5 to 5.00 mbgs, however soil impacts were not identified on the Phase Two Property.

I. Information concerning soil vapour intrusion of the contaminants into buildings

No volatile parameters were identified at concentrations greater than the applicable SCS, therefore vapour intrusion is not considered to be an exposure pathway at this time.

IV. Where contaminants on, in or under the Phase Two Property are present at concentrations greater than the applicable SCS, one or more cross-sections showing

- A. The lateral and vertical distribution of a contaminant in each area where the contaminants are present at concentrations greater than the applicable SCS in soil, groundwater and sediment**
- B. Approximate depth to water table**
- C. Stratigraphy from ground surface to the deepest aquifer or aquitard investigated**
- D. Any subsurface structures and utilities that may affect contaminants distribution and transport**

Contaminants were not identified at levels in excess of the applicable MECP Table 2 SCS.



- V. For each area where a contaminant is present on, in or under the property at a concentration greater than the applicable SCS for the contaminant, a diagram identifying, with narrative explanatory notes**
- A. The release mechanisms**
 - B. Contaminant transport pathway**
 - C. The human and ecological receptors located on, in or under the phase two property**
 - D. Receptor exposure points**
 - E. Routes of exposure**

Refer to Figure 10A and 10B.