

Phase Two Environmental Site Assessment

Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10,
20R16040 and 3278 Regional Road 25

Oakville, Ontario

Prepared For:

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DS Project No: 19-323-100

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Executive Summary

DS Consultants Ltd. (DS) was retained by Palermo Village Corp (PVC) (the “Client”) to conduct a Phase Two Environmental Site Assessment (ESA) of the Property described as Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, Ontario, herein referred to as the “Phase Two Property”. DS understands that this Phase Two ESA has been requested in support of future re-zoning and site plan approval applications. It is further understood that the intended future use of the Site would be for mixed residential and commercial purposes.

The Phase Two ESA was completed in general accordance with 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 Two Property is an irregular shaped parcel of land located at the northwest corner of the intersection of Dundas Street West and Bronte Road (Regional Road 25) with an approximately 56.4 -hectares (139.3 acres) in area. The Phase Two Property is situated within a mixed residential, commercial, institutional and agricultural neighbourhood in the Town of Oakville, Ontario.

Four (4) rectangular structures (Site Building A, B, E and F) are present on the Phase Two Property. Site Building A and Site Building B are located within the southern portion of the Site, whilst Site Building E and Site Building F are located at 3278 Regional Road 25, within the northeastern portion of the Site. Site Building A consisted of an abandoned square structure which was utilised for storage of construction materials (bricks) and soil. Site Building B was vacant and abandoned. Site Building E is a single storey residential dwelling containing one (1) level of basement and was occupied by the property owner during this assessment. Site Building F is a single storey single vehicle garage which was used for general storage.

The Site was historically used for residential and agricultural purposes. An orchard historically cultivated in the southwest corner of the Phase One Property from at least 1877 to the early-mid 1900s. The orchard was removed by 1954. The remainder of the Site appears to have been used for agricultural purposes from the late 1800s until present day. Historically, four structures (Site Buildings A to D) were present within the southern portion of the Site, as depicted on an Aerial Photograph from 1934. Based on the building locations

and footprints, it is inferred that Site Building A would have been utilised for residential purposes, whilst Site Buildings B, C, and D were likely utilised to support the agricultural activities taking place on the Site. By the mid 1990s, the southern portion of Site Building A appears to have been demolished, whilst the entirety of Site Buildings C and D appear to have been demolished. Site Building E and F were constructed between 1954 and 1974. According to historical records, Roni Excavating operated on 3278 Regional Road 25 between 1992 and 2001. The Phase One Interview confirmed that the 3278 Regional Road 25 is currently used for residential and commercial purposes as a staging area for the owners' excavating company.

A total of twenty-three (23) potentially contaminating activities (PCAs) were identified on the Phase Two Property based on the historical land use. 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 in conjunction with the geotechnical assessments and involved the advancement of forty-five (45) boreholes (BH21-2 to BH21-15, BH/MW21B-1, BH/MW21B-2, BH/MW21B-3, BH22-1 to BH22-18, GS1 to GS10) between February 2021 to March 2022. The boreholes were advanced to a maximum depth of 12.0 metres below ground surface (mbgs) under the supervision of DS personnel. Groundwater monitoring wells were installed in twenty-two (22) of the boreholes (BH21-2, BH21-3, BH21-4, BH21-5, BH21-6, BH21-7, BH21-8, BH21-15, BH21-30, BH21-36, BH21-68, BH/MW21B-1, BH/MW21B-2, BH/MW21B-3, MW22-2, MW22-6, MW22-7, MW22-9, MW22-14, MW22-16, MW22-17 and MW22-18) and were utilized to facilitate the collection of groundwater samples and the assessment of groundwater flow direction. In addition, twelve (12) boreholes were advanced in the vicinity of BH21-10 and BH21-11, to a maximum depth of 2.1 mbgs on April 6, 2021. Ten (10) boreholes (B-GS1 to B-GS10) were hand augured on June 30, 2021.

The borehole locations were determined based on the findings of the Phase One ESA. All APECs were investigated with boreholes and/or monitoring wells in accordance with the requirements of O.Reg. 153/04 (as amended). Soil and groundwater samples were collected and submitted for analysis of all COPCs, as follows:

Soil Samples Submitted for Analysis:

- ◆ Twenty-four (24) samples for analysis of Metals and As, Sb, Se, B-HWS, electrical conductivity, Cr (VI), Hg, SAR and pH (Other Regulated Parameters, ORPs). An additional three (3) samples were submitted for analysis of pH only.
- ◆ Nineteen (19) samples (including 3 field duplicates for QA/QC purposes) for analysis of Metals.
- ◆ Nineteen (19) samples (including 6 field duplicates for QA/QC purposes) for analysis of petroleum hydrocarbons (PHCs).
- ◆ Fourteen (14) samples (including 4 field duplicates for QA/QC purposes) for analysis of volatile organic compounds (VOCs), including Benzene, Toluene, Ethylbenzene and Xylene (BTEX).
- ◆ Nine (9) samples for analysis of polycyclic aromatic hydrocarbons (PAHs).
- ◆ Eleven (11) samples (including 1 field duplicate for QA/QC purposes) for analysis of organochlorine pesticides (OCPs).

Groundwater Samples Submitted for Analysis:

- ◆ Seven (7) samples were submitted for analysis of Metals and ORPs, including one (1) field duplicate for QA/QC purposes.
- ◆ Seven (7) samples (including 2 field duplicates for QA/QC purposes) for analysis of PHCs.
- ◆ Six (6) samples (including 1 field duplicate for QA/QC purposes) were submitted for analysis of VOCs and BTEX.
- ◆ Five (5) samples for analysis of polycyclic aromatic hydrocarbons (PAHs).

The soil and groundwater analytical results were compared to the “Table 1 SCS: Full Depth Background Site Condition Standards for all property uses other than agricultural (Table 1 SCS)” 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 1 Standards) for coarse-textured soils and residential/ parkland/ institutional /industrial/ commercial/ community property use.

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

- ◆ A surficial layer of topsoil, varying from 50 to 280 mm in thickness, was present at the surface of all the boreholes except BH/MW21B-1. BH/MW21B-2, BH/MW21B-3, B-GS3 to B-GS6, B-GS8 to B-GS10. A surficial layer of fill consisting of sandy silt, clayey silt and silty clay was encountered below topsoil in all the boreholes except GS1 and GS7, extending to depths ranging from 0.7 to 1.5 mbgs. The fill material consisted of

some to trace of topsoil, organics, rootlets and gravel. Brick fragments and concrete pieces were observed in the fill material associated with B-GS6, B-GS10, MW21B-2 and MW21B-3. Below the fill, clayey silt till deposit was encountered in all the boreholes, overlying till/shale complex, to an approximate depth of 4.6 mbgs. Below the clayey silt till in all boreholes, a deposit of clayey silt till/shale complex was found overlying shale bedrock, at approximate depth of 4.6 m and extending to an approximate depth of 6.0m. This deposit generally consisted of clayey silt till mixed with highly weathered shale. Shale bedrock of Queenston Formation was encountered at depths ranging from 3.1 to 13.7 below the existing grade.

- ◆ The depth to groundwater was measured in all monitoring wells installed during the course of this investigation except MW/BH21-3. MW/BH21B-3 was dry at the time of this investigation. The monitoring wells were screened to intercept the groundwater water table. The groundwater levels were found to range between 0.98 and 15.06 mbgs with corresponding elevations of 151.89 to 137.36 metres above sea level (masl). 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 southwest towards a tributary of the Fourteen Mile Creek, located to the west of the Site. 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.
- ◆ The results of the chemical analyses conducted indicated the following exceedances of the Table 1 Standards:

Table E-1: Summary of Soil Impacts Identified

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 Standard	Analytical Result
BH21-10/SS2	0.8-1.4	F4 (C34-C50)	µg/g	120	138
BH21-11/SS1	0-0.6	Zinc	µg/g	290	710
BH21-11/SS1 (re-test)	0-0.6	Copper	µg/g	92	120
		Lead	µg/g	120	150
		Zinc	µg/g	290	1600
BH21-11A/SS1	0-0.6	Zinc	µg/g	290	390
BH21-11S/SS1	0-0.6	Zinc	µg/g	290	428

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 Standard	Analytical Result
BH21-11SE/SS1	0-0.6	Zinc	µg/g	290	548
MW/BH21B-1 SS1	0-0.6	Chromium VI	µg/g	0.66	2.7
MW/BH21B-1 SS2	0.8-1.4	EC	mS/cm	0.57	1.1
		SAR	N/A	2.4	2.8
MW/BH21B-2 SS1	0-0.6	Barium	µg/g	220	630
		SAR	N/A	2.4	3.1
B-GS4	0-0.6	SAR	N/A	2.4	3.6
		Zinc	µg/g	290	330
B-GS6	0-0.6	EC	mS/cm	0.57	0.99
B-GS8	0-0.6	Arsenic	µg/g	18	19
B-GS10	0-0.6	Chromium Total	µg/g	70	94
		Chromium VI	µg/g	0.66	3.8
		Copper	µg/g	92	110
		Molybdenum	µg/g	2	2.3
		Zinc	µg/g	290	450

Notes for Reported Value:

Red – Result exceed applicable Table 1 SCS.

- ◆ The results of the groundwater chemical analyses conducted indicated the following exceedances of the Table 1 Standards:

Table E-2: Summary of Groundwater Impacts Identified

Sample ID	Well Screen Interval	Parameter	Units	Table 1 Standard	Analytical Result
MW/BH21B-1	2.7-5.8	Chloride	µg /L	790000	830000
		Uranium	µg /L	8.9	18.4
MW/BH21B-2	2.7-5.8	Uranium	µg /L	8.9	14.6
MW21-3	4.6-6.1	Uranium	µg /L	8.9	17.8
	4.6-6.1	Uranium	µg /L	8.9	18
Dup02 (MW21-3)	4.6-6.1	Uranium	µg /L	8.9	18.8

Notes for Reported Value:

Red – Result exceed applicable Table 1 SCS.

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

- ◆ The results of the soil chemical analyses identified elevated levels of EC and SAR associated with boreholes (MW/BH21B-1/SS2, MW/BH21B-2/SS1, B-GS4 and B-GS6) located within the asphalt paved area present on-Site at 3278 Regional Road 25, and are inferred to be linked to the application of de-icing agents. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”: “...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site Condition Standards (SCS) for EC and SAR are deemed not to be exceeded for the purposes of filing a RSC. It should be noted that disposal premiums may still be incurred for the off-site disposal of EC/SAR impacted soils at the time of construction.
- ◆ Soil containing elevated concentrations of Metals above the SCS were present within 3278 Regional Road 25, in the vicinity of where miscellaneous construction debris and material stored. Metals impacts in soil were also identified in the southern portion of the Site, in the vicinity of where unknown source of fill material has applied to the vicinity of former buildings. The vertical extent of the Metals impacts was found to be less than 0.8 mbgs. It is anticipated that bulk excavation associated with the redevelopment of the Site will facilitate the complete removal (remediation) of the metal impacted soil at the Site. Verification sampling should be completed upon removal of metals impacted soil at the Site. Upon successful completion of the post remediation soil verification sampling, the RSC filing process may commence.
- ◆ Soil containing elevated concentrations of PHCs F4 (C34 to C50) above the SCS were present within BH21-10 located in the vicinity of former site buildings, within southern portion of the Site. Per Section 48(2) of O.Reg. 153/04: *“If two or more samples of soil or sediment are taken from sampling points at the same sampling location that are at the same depth on, in or under the property, the property meets a standard mentioned in subsection (1) if the average of the sampling results meets the standard and in no other circumstances”*. For the purposes of averaging, One (1) additional borehole was advanced immediate next to BH21-10. Soil samples, including one (1) field duplicate for QA/QC purpose were collected and submitted for

analysis of PHCs within the same depth that BH21-10/SS2 had been collected (0.8-1.4 mbgs). The average of the above listed analyses, including the result of the initial exceedance for BH21-10/SS2, was 79 µg/g, which meets the Table 1 SCS for 120 µg/g for PHC F4 (C34-C50). As such, the concentration of PHC F4 at BH21-10 is considered to meet the Table 1 SCS.

- ◆ The results of the chemical analyses indicated that the concentration of chloride in MW/BH21B-1 on June 16, 2021 exceeded the applicable Table 1 SCS. MW/BH21B-1 is located within the asphalt paved driveway present on the Site. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable Site condition standard is exceeded at a property solely because of one of the following reasons, the applicable Site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”*: *“...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site condition standards for chloride in groundwater are deemed not to be exceeded.
- ◆ Elevated concentrations of uranium were identified in monitoring wells MW/BH21B-1, MW/BH21B-2 and MW21-3. It is noted that these monitoring wells are screened within or just above the shale bedrock. Surficial soil sampling associated with fill material at each of the impacted wells indicated low concentrations of uranium present, and all surficial soil samples met the MECP Table 1 SCS for the concentration of uranium in soil. Based on the aforementioned considerations the elevated concentrations of uranium are inferred to be the result of the natural background conditions associated with the bedrock geology, and not contamination as defined under the EPA.
- ◆ It is noted that BH/MW21B-3 located within the eastern portion of the site was dry throughout the Phase Two ESA, therefore the groundwater quality associated with APEC 1C could not be assessed. Groundwater sampling in this location will be required for the purposes of a future RSC submission. It is noted that soils in BH/MW21B-3 met the applicable SCS, as such the potential for groundwater impacts associated with the fuel oil tank is considered to be low.
- ◆ The results of this Phase Two ESA indicate that the applicable Site Condition Standards for soil have not been met. It is anticipated that the impacted soils identified can be managed through remedial excavation and off-site disposal. Post-remediation verification soil sampling in accordance with O.Reg. 153/04 will be required before an RSC can be filed for the Site.

- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

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Figure 2 – Phase Two Property Site Plan

Figure 3 – Phase One Study Area

Figure 4 – PCA within Phase One Study Area

Figure 5 – Borehole Location Plan with APECs

Figure 6 – Groundwater Elevation Contours and Flow Direction

Figure 7A – Soil Characterization – Metals and ORPs

Figure 7B – Soil Characterization – PHCs

Figure 7C – Soil Characterization – VOCs

Figure 7D – Soil Characterization – PAHs

Figure 8A – Groundwater Characterization – Metals and ORPs

Figure 8B – Groundwater Characterization – PHCs

Figure 8C – Groundwater Characterization – VOCs

Figure 8D – Groundwater Characterization - PAHs

Figure 9 – Contaminant Transport Diagram

APPENDICES

Appendix A – Plan of Survey

Appendix B – Sampling and Analysis Plan

Appendix C – Borehole Logs

Appendix D – Laboratory Certificates of Analysis

1.0 Introduction

DS Consultants Ltd. (DS) was retained by Palermo Village Corp (PVC) (the “Client”) to conduct a Phase Two Environmental Site Assessment (ESA) of the Property with the municipal address of Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, Ontario, herein referred to as the “Phase Two Property”. DS understands that this Phase Two ESA has been requested for due diligence purposes in order to support of future re-zoning and site plan approval applications. It is further understood that the intended future use of the Site would be for residential purposes.

The intended future property use (residential) is considered to be a more sensitive property use as defined under O.Reg. 153/04 (as amended) than the current commercial use; therefore, the filing of a Record of Site Condition (RSC) with the Ontario Ministry of Environment, Conservation and Parks (MECP) will be required under O.Reg. 153/04.

The Phase Two ESA was completed in general accordance with 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.

1.1 Site Description

The Phase Two Property is located at the northwest corner of the intersection of Dundas Street West and Bronte Road (Regional Road 25) with an area of 56.4 -hectares (139 acres). The Phase Two Property is situated within a mixed residential, commercial and agricultural neighbourhood in the Town of Oakville, Ontario. A Site Location Plan depicting the general location of the Site is provided in Figure 1.

For the purposes of this report, Dundas Street West is assumed to be aligned in an east-west orientation, and Bronte Road/Regional Road 25 in a north-south orientation. A Plan of Survey of the Phase Two Property dated October 14, 2022 and prepared by R-PE Surveying Ltd., an Ontario Land Surveyor, has been provided under Appendix A.

The Property currently includes included four (4) buildings, herein identified as Site Buildings A, B, E and F. Site Building A consisted of an abandoned square structure which was infilled with fill material and construction debris. Site Building B was an abandoned square structure constructed with brick walls and concrete floors. Both structures were

located within the southern portion of the property. Site Building E and F were single-storey buildings located at 3278 Bronte Road, within the western portion of the property. Site Building E contained a basement, whereas Site Building F did not. Site Building E was used for residential purposes and Site Building F was used as a single vehicle garage used for general storage. As per the 1934 aerial photograph, two (2) additional buildings were historically present on the Site, which are herein identified as Site Buildings C and D.

A Site Plan depicting the orientation of the 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	PT LT 31, CON 1 TRAF NDS AS IN 716477 LYING SE OF LANDS EXPROPRIATED BY PE143, S&E PTS 1, 3, 5, 7 & 10, 20R16040, OAKVILLE. S/T EASEMENT HR390695 OVER PTS 2, 4, 6, 8 & 9, 20R16040 IN FAV OF PTS 1 & 7, 20R16040. S/T EASEMENT HR392261 OVER PTS 2, 4, 6, 8 & 9, 20R16040 IN FAV OF PTS 1 & 7, 20R16040 and PART 3 OF LOT 31, CONCESSION 1, NORTH OF DUNDAS, Plan 20R-11426	Legal Survey
Property Identification Number (PIN)	24927-0147 24927-0083	Legal Survey
Current Site Occupants	Residential building and small excavating business, farmlands	Phase One Site Reconnaissance
Site Area	56.4 hectares (139 acres)	Google Earth

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
Palermo Village Corporation	4900 Palladium Way, Suite 105 Burlington, Ontario, L7M 0W7	adrian@argoland.com

1.3 Current and Proposed Future Use

The Phase Two Property is currently used for residential and commercial purposes as defined by O.Reg. 153/04 (as amended). It is DS' understanding that the Client intends to redevelop the Site for residential use.

1.4 Applicable Site Condition Standards

The Phase Two Property is currently used for mixed residential and commercial purposes and is located within the City of Oakville. The proposed future land use is for residential purposes.

As defined in Section 1 (1) of O.Reg. 153/04 an area of natural significance is “*An area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species*” or “*An area which is habitat of a species that is classified under section 7 of the Endangered Species Act, 2007 as a threatened or endangered species*”; as a result, the Site is considered under O.Reg 153/04 (as amended) to be an area of natural significance.

Based on the observations collected during the Phase One Site reconnaissance and review of the MNR database, Fourteen Mile Creek is present within the northwest portion of the Site and upon the west adjacent (within 30m) property; in addition, the entirety of the Site was historically utilized as farm fields as observed in the Site reconnaissance; thus, it is anticipated that the Phase One Property may provide a viable habitat for the Redside Dace and Northern Bobwhite. As a result, the Phase Two Property is considered to be located within 30 metres of an area of natural significance.

Per Section 41 of O.Reg. 153/04 (as amended), a property is considered to be environmentally sensitive under the following circumstances:

- ◆ The Site is within an area of natural significance
- ◆ The Site includes or is adjacent to an area of natural significance of part of such an area, or
- ◆ The Site includes land that is within 30 metres of an area of natural significance or part of such an area.

Based on the presence of the area of natural significance within 30 metres of the Phase One Property, the Site is considered under O.Reg. 153/04 (as amended) to be environmentally sensitive.

The applicable Site Condition Standards (SCS) for the Phase Two Property are considered by the Qualified Person (QP) to be the Table 1 SCS: Full Depth Background Site Condition Standards for all property uses other than agricultural (Table 1 SCS) 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 1 SCS”.

2.0 Background Information

2.1 Physical Setting

2.1.1 Water Bodies and Areas of Natural Significance

The nearest body of water to the Phase Two Property is Fourteen Mile Creek, which is located approximately 80 m west of the Site.

Environmentally Significant Areas are natural areas that have been identified as significant and worthy of protection on three criteria – ecology, hydrology and geology. Municipalities has developed policies to protect natural heritage features. The Region uses Environmentally Significant Areas as a means to protect natural areas like wetlands, fish habitat, woodlands, habitat of rare species, groundwater recharge and discharge areas, and Areas of Natural and Scientific Interest.

A review of the MNR database indicated that the Redside Dace, and Northern Bobwhite (endangered species), and the Eastern Meadowlark and Bobolink (threatened species) were located within 1 km of the Site. According to the MECP, the Redside Dace is an aquatic species found in pools and slow-moving areas of small streams, and the Northern Bobwhite is a small quail found in abandoned farm fields, savannahs and grasslands. Fourteen Mile Creek is the closest body of water to the Site – located approximately 305 m to the west, therefore it is not anticipated that the Phase One Property provides a viable habitat for the Redside Dace. The entirety of the Site was historically utilized as farm fields as observed in historic aerial imagery, however following development in 1974, farm fields are no longer present on the Phase One Property; thus, it is not anticipated that the Phase One Property may provide a viable habitat for the Northern Bobwhite. It is noted that the majority of the Site is currently occupied by abandoned farm fields, and thus are anticipated to provide a viable habitat for the Northern Bobwhite, therefore this species may occur within 30 m of the Phase One Property.

As defined in Section 1 (1) of O.Reg. 153/04 an area of natural significance is “*An area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species*” or “*An area which is habitat of a species that is classified under section 7 of the Endangered Species Act, 2007 as a threatened or endangered species*”; as a result, the Phase One Property is not considered under O.Reg 153/04 (as amended) to be an area of natural significance, but is considered to be located within 30m of an area of natural significance.

Based on the presence of the area of natural significance within 30 m of the Phase One Property, the Site is considered under O.Reg. 153/04 (as amended) to be environmentally sensitive.

If required, an environmental specialist could be retained to undertake a site-specific ecological assessment; however, at this time further assessment is not warranted.

2.1.2 Topography and Surface Water Draining Features

The topography of the Phase One Property is generally flat, with a surface elevation of 165 masl. Regional Road 25/Bronte Road traverses a local watershed, whereby drainage to the west of Regional Road 25 is inferred to follow the topography in a southwestern direction, whereas drainage to the east of Regional Road 25 is inferred to follow the topography in a southeasterly direction. The Phase One Property is located to the west of Regional Road 25, and the topography within the Site generally slopes to the southwest, towards Fourteen Mile Creek.

2.2 Past Investigations

2.2.1 Previous Report Summary

No environmental and geotechnical reports were provided for DS to review aside from the Phase One ESA completed at the Site, which is detailed in section 3.3 below.

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 forty-five (45) boreholes on the Phase Two Property, to a maximum depth of 12.0 mbgs. Twenty-two (22) of the boreholes (BH21-2, BH21-3, BH21-4, BH21-5, BH21-6, BH21-7, BH21-8, BH21-15, BH21-30, BH21-36, BH21-68, BH/MW21B-1, BH/MW21B-2, BH/MW21B-3, MW22-2, MW22-6, MW22-7, MW22-9, MW22-14, MW22-16, MW22-17 and MW22-18) were instrumented with groundwater monitoring wells upon completion. 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 an RKI Eagle 2 MultiGas Detector and examined for visual and olfactory indications of soil impacts;
- ◆ In addition to the above, ten (10) boreholes (B-GS1 to B-GS10) were drilled using an AMS Hand Held Auger, to depths ranging between 0-0.6 mbgs on June 30, 2021;
- ◆ 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;
- ◆ Developed and purged all monitoring wells prior to sampling. Groundwater samples were collected for all COPCs identified in the Phase One ESA;
- ◆ Compared all soil and groundwater 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 operations conducted on-Site.

Media	Included or Excluded	Rationale
Groundwater	Included	Groundwater was identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.
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	<p>A total of forty-five (45) boreholes (BH21-2 to BH21-15, BH/MW21B-1, BH/MW21B-2, BH/MW21B-3, BH22-1 to BH22-18, BH21-10A, BH21-10N, BH21-10E, BH21-10W, BH21-10S, BH21-11A, BH21-11S, BH21-11NE, BH21-11SE, BH21-11NE1, BH21-11S1, B21-11SE1, GS1 to GS10) and ten (10) hand-augured boreholes (B-GS1 to B-GS10) and were advanced on the Phase Two Property, to a maximum depth of 12.0 mbgs and 0.6 mbgs, respectively. Soil samples were collected and submitted for analysis of all relevant COPCs as follows:</p> <ul style="list-style-type: none"> ◆ BH21-3: Metals, As, Sb, Se, CN-, B-HWS, Cr (VI), Hg, pH, EC, SAR (Metals and Other Regulated Parameters (ORPs)); Polycyclic Aromatic Hydrocarbons (PAHs); Petroleum Hydrocarbons (PHCs); and Benzene, Toluene, Ethylbenzene and Xylene (BTEX). ◆ BH21-8: Metals and ORPs, PAHs, PHCs, BTEX, VOCs ◆ BH21-9: Metals and ORPs, PAHs, PHCs, BTEX, VOCs ◆ BH21-10: Metals and ORPs, PAHs, PHCs, BTEX, VOCs ◆ BH21-10A: PHCs ◆ BH21-11: Metals and ORPs ◆ BH21-11A: Metals ◆ BH21-11NE: Metals ◆ BH21-11S: Metals ◆ BH21-11S1: Metals ◆ BH21-11S1: Metals ◆ BH21-11SE: Metals ◆ BH21-11SE1: Metals ◆ BH21-12: Metals and ORPs, PHCs, BTEX, VOCs

Media	Methodology of Investigation
	<ul style="list-style-type: none"> ◆ BH21-13: Metals and ORPs, VOCs ◆ BH21-14: Metals and ORPs, PAHs, PHCs, BTEX, VOCs ◆ BH21-15: Metals and ORPs, PAHs, PHCs, BTEX, VOCs ◆ MW/BH21B-1: Metals and ORPs, PHCs, BTEX, VOCs ◆ MW/BH21B-2: Metals and ORPs, PHCs, BTEX, VOCs ◆ MW/BH21B-3: Metals and ORPs, PAHs, PHCs, BTEX, VOCs <p>Soil samples associated with GS1 to GS10, B-GS1 to B-GS10 were collected and submitted for analysis of Metals and ORPs.</p>
Groundwater	<p>A total of twenty-two (22) monitoring wells were present on the Phase Two Property at the time of the investigation. Representative groundwater samples were collected from five (5) monitoring wells and submitted for analysis of all relevant COPCs, with the exception of MW21B-3 which was dry throughout the course of the investigation. The remaining wells were utilized for hydrostratigraphic characterization.</p>

3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, Ontario. The Phase One Conceptual Site Model is presented in Drawings 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

All PCAs identified within the Phase One Study Area are presented on Figure 4. 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-4	#28 – Gasoline and associated products storage in fixed tanks	A 680 L heating fuel oil AST (AST 2) was observed along the exterior wall of Site Building F.	Yes – APEC-1A
PCA-5	#28 – Gasoline and associated products storage in fixed tanks	A 4500 L cylindrical steel encased AST (AST 3) was observed along the west side of Building F and is used for bulk storage of heating fuel oil for AST 1 and 2.	Yes – APEC-1B
PCA-8	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	An orchard was historically cultivated at the southwestern corner of the Phase One Property.	Yes – APEC-2
PCA-9	N/S – Miscellaneous Refuse, Debris, and Derelict Vehicles	Miscellaneous construction materials (lumber and metal piping), several truck trailers, flat-bed trailers, one disused truck, one disused tractor and refuse were located on the Phase One Property adjacent to the property located at 3278 Regional Road 25.	Yes – APEC-3
PCA-10	# 30 – Importation of Fill Material of Unknown Quality	A stockpile of construction debris (brick, lumber) and soil was observed to the south of the former extent of Site Building A and west adjacent to Site Building B.	Yes – APEC-4C
PCA-11	N/S – Miscellaneous Refuse, Debris, and Derelict Vehicles	Yard waste, miscellaneous refuse and abandoned vehicles such as various trucks, and trailers, two (2) parked boats, dis-used cars, trailers, tires, shipping containers and smaller containers were observed on the southwest portion of the Phase One Property.	Yes – APEC-5
PCA-12	# 30 – Importation of Fill Material of Unknown Quality	Former Building D has been demolished; fill material may have been used to infill the area it formerly occupied.	Yes – APEC-4B
PCA-13	# 30 – Importation of Fill Material of Unknown Quality	Site Building A historically encompassed a larger footprint, it is inferred that fill material may have been utilized for grading purposes when the structure was demolished in the mid 1990s. Additionally, at the time of the Site Visit, the remaining interior of Site Building A was filled with miscellaneous construction debris (lumber, brick) and general refuse.	Yes – APEC-4D
PCA-15	# 30 – Importation of Fill Material of Unknown Quality	A soil stockpile of unknown origin was located on the Phase One Property adjacent to the property located at 3278 Regional Road 25.	Yes – APEC-4A

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
PCA-16	# 30 – Importation of Fill Material of Unknown Quality	Former Building C has been demolished; fill material may have been used to infill the area it formerly occupied.	Yes – APEC-4E
PCA-18	#58 – Waste disposal and waste management, including thermal treatment, landfilling and transfer of waste, other than use of biosoils as soil conditioners.	The Phase One Property was listed in Ecolog ERIS for the generation of waste oils and lubricants.	Yes - APEC-6
PCA-19	#28 – Gasoline and Associated Products Storage in Fixed Tanks	One (1) dyed diesel AST (AST 4) was observed on Site for vehicle re-fueling purposes.	Yes - APEC-1D
PCA-20	#28 – Gasoline and Associated Products Storage in Fixed Tanks	One (1) clear diesel AST (AST 5) was observed adjacent to the dyed diesel AST and was used for re-fueling purposes.	Yes - APEC-1E
PCA-22	#27- Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles	The Property at 3278 Regional Road 25 has been used for light vehicle maintenance and servicing activities.	Yes – APEC-7
PCA-23	#28 – Gasoline and Associated Products Storage in Fixed Tanks	A 900 L heating fuel oil AST (AST 1) was observed in the basement of Site Building E.	Yes – APEC-1C

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, VOCs, 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.

Plans were not available to confirm the depths of these utilities or whether they are present, however they are estimated to be installed at depths ranging from 2 to 3 mbgs.

The depth to groundwater at the Phase One Property is inferred to be approximately 0.98 to 15.06 mbgs, therefore it is possible that the utility corridors may 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 sloped to the south, with a surface elevation of 155 to 165 masl. Bronte Road traverses a local watershed, whereby drainage to the west of Bronte Road is inferred to follow the topography in a southwestern direction, whereas drainage to the east of Bronte Road is inferred to follow the topography in a southeasterly direction. The Phase One Property is located to the west of Bronte Road, and the topography within the Site generally slopes to the southwest, towards Fourteen Mile Creek. The nearest body of water is Fourteen Mile Creek, which traverses a portion in the northwest of the Phase One Property, but is primarily located on the west neighboring property, traversing the land in a north-south orientation.

Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is considered to be approximately 0.8 to 2.1 metres below ground surface (mbgs). The shallow groundwater flow direction within the Site is inferred to be southwesterly towards tributaries of the Fourteen Mile Creek. Shallow groundwater flow to the east of Bronte Road is inferred to be in a southeasterly direction – as indicated by the topography, and as reported in the RSC filed for the former Shell Retail Fuel Outlet located at 3001 Dundas Street West.

The northern portion of the Site is situated within a till moraines physiographic region and the southern portion of the Site is situated within a till plains (drumlinized) physiographic region. The surficial geology within the Phase One Study area is described as “till, clay to silt-textures till (derived from glaciolacustrine deposits or shale)”, and the bedrock is described as “shale, limestone, dolostone, siltstone, Queenston Formation”. Based on a review of the MECP Well Records, and available well records and previous ESAs completed in properties located at the Phase One Study Area the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 3.6 to 4.5 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, with the exception of the MECP FOI and City Directory

request. If the MECP FOI and City Directory request produces information which may alter the conclusions of this report, an addendum will be provided to the Client. 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 with the exception of the following:

- Additional soil sampling was conducted in order to average a PHC F4 (C34-C50) exceedance in BH21-10/SS2. An additional borehole (BH21-10A) was advanced immediately next to BH21-10 and two (2) samples (including one (1) field duplicate for QA/QC purpose) was collected for averaging purposes.
- Additional soil sampling was conducted in order to horizontally delineate the impacted soil associated with BH21-11. Additional boreholes (BH21-11NE, BH21-11SE, BH21-11S) were advanced surrounding and within 1 m radius of BH21-11. Additional boreholes (BH21-11NE1, BH21-11SE1, BH21-11S1) were advanced surrounding and within 2.5 m radius of BH21-11.
- B-GS1 and B-GS10 were added to the SAP in order to horizontally delineate the impacted soil associated with MW/BH21B-1 and MW/BH21B-2.
- Additional soil samples were submitted from MW/BH21B-1 and MW/BH21B-2 in order to vertically delineate impacted soils.

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 in order 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		
	Borehole Investigation		
Drilling Contractor	3D Drilling	Young’s Drilling	Davis Drilling
Drilling Dates	February 24, 2021 to March 1, 2021	March 22, 2021 to April 6, 2021	June 14, 2021
Drilling Equipment Used	Truck-mounted CME 75		
Measures taken to minimize the potential for cross contamination	<p>◆ 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 distilled water for each sampling interval in order to reduce the potential for cross contamination;</p>		

Parameter	Details
	<ul style="list-style-type: none"> ◆ Soil samples were extracted from the interior of the sampler rather than from areas in contact with the sampler sidewalls; ◆ 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.
Hand-Auger Investigation	
Equipment Used	AMS Hand-Held Auger
Date	June 30, 2021
Sample collection frequency	Samples were collected between 0-0.6 mbgs.
Measures taken to minimize the potential for cross contamination	<ul style="list-style-type: none"> ◆ The AMS hand-held auger was rinsed with deionized water and Alconox™ solution between each hand-auger borehole location. ◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.

4.3 Soil Sampling

Soil samples were collected using 50 mm stainless steel split spoon samplers and the AMS hand held auger. Discrete soil samples were collected from the split-spoon samplers or the AMS hand held auger (as applicable) 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 5.1, and depicted visually in Figure 5.

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 with the following exception:

- ◆ Trace amounts of asphalt fragments were identified at 0.15 mbgs in BH21B-3 (SS1), but were not identified as extending to 0.8 mbgs (SS2).
- ◆ Trace amounts of brick were identified in GS6 extending to the maximum termination depth of the boreholes (0.6 mbgs).

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
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

Parameter	Details
	the calibration check indicated that the calibration had drifted by more than +/- 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 twenty-two (22) of the boreholes advanced on the Phase Two Property (BH21-2, BH21-3, BH21-4, BH21-5, BH21-6, BH21-7, BH21-8, BH21-15, BH21-30, BH21-36, BH21-68, BH/MW21B-1, BH/MW21B-2, BH/MW21B-3, MW22-2, MW22-6, MW22-7, MW22-9, MW22-14, MW22-16, MW22-17 and MW22-18). 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 flush mount casings. Details regarding the monitoring well construction can be found in Table 1 (Enclosed), 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.

The monitoring wells were developed on March 1 and June 15, 2021, with the exception of MW21B-3 which was dry. In accordance with DS SOPs for monitoring well development, the wells were developed by removing a minimum of three standing water column volumes using dedicated inertial pumps comprised of Waterra polyethylene tubing and dedicated foot valves.

4.6 Groundwater Field Measurement of Water Quality Parameters

Field measurements of water quality parameters including temperature, specific conductivity, pH, turbidity, dissolved oxygen, oxidation-reduction potential and turbidity were collected using a flow-through cell and a YSI Water Quality Meter (YSI-556™). The YSI

Water Quality Meter was calibrated by the supplier (Maxim Environmental Limited) in accordance with the manufacturer's specifications.

The measurements were conducted at regular intervals in order to determine whether stabilized geochemical conditions had been established in the monitoring well, indicating representative groundwater conditions.

The field measurements have been archived and can be provided upon request.

4.7 Groundwater Sampling

Groundwater samples were collected a minimum of 24 hours after the development of the monitoring wells. The monitoring wells were sampled using low flow methodology. The monitoring wells were purged to dryness at the lower possible pumping rate and were allowed to recover prior to sampling. The samples were collected using a peristaltic pump with dedicated 6.4 mm ID polyethylene tubing.

Groundwater samples for metals analysis were field filtered using dedicated 0.45 micro in-line filters. The groundwater was transferred directly into laboratory supplied containers, and preserved as appropriate using the containers supplied by the analytical laboratory. The samples were placed in coolers upon completion of sampling and stored on ice for storage, pending transport to the analytical laboratory. A formal chain of custody was maintained for all samples submitted to the laboratory.

4.8 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.

4.9 Analytical Testing

The soil and groundwater samples collected were submitted to SGS Canada Inc. (SGS) under chain of custody protocols. SGS is an independent laboratory accredited by the Canadian Association for Laboratory Accreditation. SGS 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).

4.10 Residue Management Procedures

4.10.1 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.

4.10.2 Water from Well Development and Purging

Excess water derived from well purging activities was stored in 20-L sealed plastic pails and temporarily stored on site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

4.10.3 Fluids from Equipment Cleaning

Excess equipment cleaning fluids were stored in 20-L sealed plastic pails and temporarily stored on site for disposal by a MECP approved waste-hauler for disposal at a MECP-approved waste management facility.

4.11 Elevation Surveying

The geodetic benchmark used for the survey conducted during this investigation is identified as station #00919690040, at approximately 128 masl. The elevation survey was completed using a Sokkia GCX-2 GNSS RTK receiver. The ground surface elevations can be found on the borehole logs presented in Appendix C.

4.12 Quality Assurance and Quality Control Measures

4.12.1 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.

Media	Parameter	Sample Container
	PHCs F2-F4 metals and ORPs PAHs	120 mL or 250 mL unpreserved glass jar with Teflon™-lined lid.
Groundwater	PHCs F1 VOCs	40 mL glass vial with septum lid, containing sodium bisulphate preservative.
	PHCs F2-F4	250 mL amber glass bottle with sodium bisulphate preservative
	PAHs	250 mL amber glass bottle (unpreserved)
	Inorganics	500 mL high density polyethylene bottle (unpreserved)
	Metals	125 mL high density polyethylene bottle containing nitric acid preservative
	Hexavalent Chromium	125 mL high density polyethylene bottle containing ammonium sulphate/ammonium hydroxide preservative
	Mercury	125 mL glass bottle containing hydrochloric acid preservative
	Cyanide	125 mL high density polyethylene bottle containing sodium hydroxide preservative

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.

4.12.2 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, washed in municipal water containing phosphate free detergent, rinsed in municipal water, 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. interface probe) 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.

4.12.3 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. Eagle RKI 2, YSI Water Quality Meter) were calibrated prior to use by the supplier. Calibration checks were completed, and re-calibrations were conducted as required.

4.12.4 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, varying from 50 to 280 mm in thickness, was present at the surface of all the boreholes except BH/MW21B-1. BH/MW21B-2, BH/MW21B-3, B-GS3 to B-GS6, B-GS8 to B-GS10. A surficial layer of fill consisting of sandy silt, clayey silt and silty clay was encountered below topsoil in all the boreholes except GS1 and GS7, extending to depths ranging from 0.7 to 1.5 mbgs. The fill material consisted of some to trace of topsoil, organics, rootlets and gravel. Brick fragments and concrete pieces were observed in the fill material associated with B-GS6, B-GS10, MW21B-2 and MW21B-3. Below the fill, clayey silt till deposit was encountered in all the boreholes, overlying till/shale complex, to an approximate depth of 4.6 mbgs. Below the clayey silt till in all boreholes, a deposit of clayey silt till/shale complex was found overlying shale bedrock, at approximate depth of 4.6 m and extending to an approximate depth of 6.0m. This deposit generally consisted of clayey silt till mixed with highly weathered shale. Shale bedrock of Queenston Formation was encountered at depths ranging from 3.1 to 13.7 below the existing grade.

Table 5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.05-0.28	164.6	164.3	--
Fill Material	0.7-1.5	164.3	162.4	Sand and gravel to clayey silt, moist, reddish brown to brown
Clayey Silt Till	3.1	162.4	159.3	Some sand, gravel, moist, brownish grey, stiff
Weathered Shale Bedrock	Unknown	159.3	Unknown	Reddish brown

5.2 Ground Water Elevations and Flow Direction

5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

A total of six (6) monitoring wells were installed on the Phase Two Property in order to assess the groundwater quality in relation to APEC-1A, 1B, 1E, 1D, 3, 5, 6 and 7. The COPCs associated with these APECs were Metals and ORPs, PHCs, VOCs and PAHs. The monitoring wells were screened to intersect the first water bearing formation encountered, in order to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater at the water table. Sixteen (16) other monitoring wells were installed on the Phase Two Property to assessment of groundwater flow direction. The monitoring wells were screened within the clayey silt till and weathered shale units encountered at an approximate depth of 2.4 mbgs. These units are 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 (enclosed). The groundwater level measurements were collected using a Solinst interface probe. The depth to groundwater was found to range between 0.98 and 15.06 mbgs in monitoring wells on January 24, 2023. 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 (Enclosed). Generally, the groundwater elevation was found to range from 137.04 to 164.29 masl in the 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 east towards a tributary of the Fourteen Mile Creek, located to the east of the Site. The groundwater elevation contours and flow direction are presented on Figure 6.

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 0.98 to 15.06 mbgs on the Phase Two Property. Buried utility services are present on the Phase Two Property, and are inferred to be situated at depths ranging between 2 and 3 mbgs. Based on this there is the potential for the utility trenches to act as preferential pathways. However no groundwater impacts were identified, therefore the potential for preferential migration of contaminants is not of concern at this time.

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 January 24, 2023.

Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – (clayey silt till)	Average: 0.011253

5.3.2 Vertical Hydraulic Gradient

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

5.4 Fine-Medium Soil Texture

Not Applicable – for the purposes of evaluating the SCS, all soils on the Phase Two Property are considered coarse textured.

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 PID and CGD in methane elimination mode. **The PID and CGD readings were found to be non-detect (0 ppm) for all samples analyzed.**

The soil samples were also screened for visual and olfactory indicators of impacts (e.g. staining, odours). No visual or olfactory signs of contamination were observed at the time of sampling with the exception of the trace brick fragments observed at GS6, which were associated with fill material that extended to the borehole termination at a maximum depth of 0.6 mbgs. This material was analyzed for metals and ORPs.

5.6 Soil Quality

The results of the chemical analyses conducted are presented in Tables 5 through 8 (Enclosed). A visual summary of the location of the sample locations is provided in Figures 7A through 7D. The laboratory certificates of analysis have been provided under Appendix D.

5.6.1 Metals and ORPs

A total of twenty-four (24) samples were submitted for analysis of metals and ORPs. Nineteen (19) samples (including 3 field duplicates for QA/QC purposes) were submitted for analysis of metals. The results of the analyses are tabulated in Table 5 (enclosed), and presented on Figure 7A. The results of the analyses indicated the following exceedances of the Table 1 SCS:

Table 5-3: Summary of Metals and ORPs Exceedances in Soil

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 Standard	Analytical Result
BH21-10/SS2	0.8-1.4	F4 (C34-C50)	µg/g	120	138
BH21-11/SS1	0-0.6	Zinc	µg/g	290	710
BH21-11/SS1 (re-test)	0-0.6	Copper	µg/g	92	120
		Lead	µg/g	120	150
		Zinc	µg/g	290	1600
BH21-11A/SS1	0-0.6	Zinc	µg/g	290	390
BH21-11S/SS1	0-0.6	Zinc	µg/g	290	428
BH21-11SE/SS1	0-0.6	Zinc	µg/g	290	548

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 Standard	Analytical Result
MW/BH21B-1 SS1	0-0.6	Chromium VI	µg/g	0.66	2.7
MW/BH21B-1 SS2	0.8-1.4	EC	mS/cm	0.57	1.1*
		SAR	N/A	2.4	2.8*
MW/BH21B-2 SS1	0-0.6	Barium	µg/g	220	630
		SAR	N/A	2.4	3.1*
B-GS4	0-0.6	SAR	N/A	2.4	3.6*
		Zinc	µg/g	290	330
B-GS6	0-0.6	EC	mS/cm	0.57	0.99*
B-GS8	0-0.6	Arsenic	µg/g	18	19
B-GS10	0-0.6	Chromium Total	µg/g	70	94
		Chromium VI	µg/g	0.66	3.8
		Copper	µg/g	92	110
		Molybdenum	µg/g	2	2.3
		Zinc	µg/g	290	450

Notes for Reported Value:

Red – Result exceed applicable Table 1 SCS.

BOLD – Concentration exceeds the Table 2 SCS or Section 41 of O. Reg 153/04.

* – The area is subject to application of de-icing salts for pedestrian and vehicular safety purposes. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 “If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”: “...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”. Any potential impacts associated with sodium and chloride in groundwater will be deemed not to exceed the MECP Site Conditions Standards for the area identified.

5.6.2 Petroleum Hydrocarbons

A total of nineteen (19) samples (including 6 field duplicates for QA/QC purposes) were submitted for analysis of PHCs (incl. BTEX). In addition, a total of two (2) samples, including one (1) sample for QA/QC purposes was submitted for analysis of PHCs. The results of the analyses are tabulated in Table 6 and presented on Figure 7B. The results of the analyses indicated the following exceedances of the Table 1 SCS:

Table 5-4: Summary of PHCs in Soil

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
BH21-10/SS2	0.8-1.4	F4 (C34-C50)	ug/g	300	138

Notes:

Red – Concentration exceeds the Table 1 SCS of O. Reg 153/04.

5.6.3 Volatile Organic Compounds

A total of fourteen (14) samples, including four (4) field duplicates for QA/QC purposes were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 7 (Enclosed) and presented on Figure 7C. The results of the analyses indicated that the samples submitted met Table 1 SCS.

5.6.4 Polycyclic Aromatic Hydrocarbons

A total of nine (9) samples were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 8 (Enclosed) and presented on Figure 7D. The results of the analyses indicated that the samples submitted met Table 1 SCS.

5.6.5 Organochlorine Pesticides

A total of eleven (11) samples, including one (1) field duplicate for QA/QC purpose were submitted for analysis of OCPs. The results of the analyses are tabulated in Table 9 (Enclosed) and presented on Figure 7E. The results of the analyses indicated that the samples submitted met Table 1 SCS.

5.6.6 Commentary on Soil Quality

Discussion of Metals and ORPs in soil:

The results of the soil chemical analyses identified elevated levels of EC and SAR associated with boreholes (MW/BH21B-1/SS2, MW/BH21B-2/SS1, B-GS4 and B-GS6) located within the asphalt paved area present on-Site at 3278 Regional Road 25, and are inferred to be linked to the application of de-icing agents. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”: “...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site Condition Standards (SCS) for EC and SAR are deemed not to be exceeded for the purposes of filing a RSC. It should be noted that disposal premiums may still be incurred for the off-site disposal of EC/SAR impacted soils at the time of construction.

Soil containing elevated concentrations of Metals above the SCS were present within 3278 Regional Road 25, in the vicinity of where miscellaneous construction debris and material

stored. Metals impacts in soil were also identified in the southern portion of the Site, in the vicinity of where unknown source of fill material has applied to the vicinity of former buildings. The metals impacts appear to be limited to the upper 0.8m of soil in this portion of the Site.

Metal and ORP impacts were not identified in groundwater, as such it does not appear that the soil impacts identified are acting as a contaminant source with respect to groundwater quality.

Discussion of PHCs in soil:

A total of nineteen (19) samples, including six (6) field duplicates for QA/QC purposes for analysis of PHCs between February 24 to June 1, 2021. The results of these analyses indicated elevated concentrations of PHCs F4 (C34 to C50) above the SCS present in sample BH21-10/SS2 at a depth of 0.8-1.4 mbgs. Per Section 48(2) of O.Reg. 153/04: “If two or more samples of soil or sediment are taken from sampling points at the same sampling location that are at the same depth on, in or under the property, the property meets a standard mentioned in subsection (1) if the average of the sampling results meets the standard and in no other circumstances”. For the purposes of averaging, an additional borehole (BH21-10A) was advanced immediately next to BH21-10 and two (2) samples (including one (1) field duplicate for QA/QC purpose) was collected and submitted for analysis of PHCs within the same depth that BH21-10/SS2 (0.8-1.4 mbgs) for averaging purposes. The results indicated the following:

Table 5-5: Summary of PHCs F4 (C34-C50) Analyses

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
BH21-10/SS2	0.8-1.4	PHCs F4 (C34 to C50)	µg/g	120	138
BH21-10A/SS2			µg/g	120	<50
Dup02 (BH21-10A/SS2)			µg/g	120	<50

The average of the above listed analyses, including the result of the initial exceedance for BH21-10/SS2, was 79.3 µg/g, which meets the Table 1 SCS of 120 µg/g for PHCs F4 (C34 to C50). As such the concentration of PHCs F3 at MW22-1 is considered to meet the Table 1 SCS.

5.7 Ground Water Quality

The results of the chemical analyses conducted are presented in Tables 9 through 12 (Enclosed). A visual summary of the location of the sample locations is provided in Figures

8A through 8D. The laboratory certificates of analysis have been provided under Appendix D.

5.7.1 Metals and ORPs

A total of seven (7) samples, including one (1) field duplicate for QA/QC purpose were submitted for analysis of metals and ORPs. The results of the analyses are tabulated in Table 9 (Enclosed) and presented on Figure 8A. The groundwater samples transferred into the metals, mercury, and hexavalent chromium bottles were field filtered using a 0.45-micron in-line filter. The results of the analyses indicated the following exceedances of the Table 1 SCS:

able 5-6: Summary of Metals and ORPs Exceedances in Groundwater

Sample ID	Well Screen Interval	Parameter	Units	Table 1 Standard	Analytical Result
MW/BH21B-1	2.7-5.8	Chloride	µg /L	790000	830000
		Uranium	µg /L	8.9	18.4
MW/BH21B-2	2.7-5.8	Uranium	µg /L	8.9	14.6
MW21-3	4.6-6.1	Uranium	µg /L	8.9	17.8
	4.6-6.1	Uranium	µg /L	8.9	18
Dup02 (MW21-3)	4.6-6.1	Uranium	µg /L	8.9	18.8

Notes for Reported Value:

Red – Result exceed applicable Table 1 SCS.

5.7.2 Petroleum Hydrocarbons

A total of seven (7) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PHCs (incl. BTEX). The results of the analyses are tabulated in Table 10 (Enclosed) and presented on Figure 8B. The results of the analyses indicated that the samples submitted met Table 1 SCS.

5.7.3 Volatile Organic Compounds

A total of six (6) samples, including one (1) field duplicate and two (2) QAQC trip blanks sample were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 11 (Enclosed) and presented on Figure 8C. The results of the analyses indicated that the samples submitted met Table 1 SCS.

5.7.4 Polycyclic Aromatic Hydrocarbons

A total of five (5) samples were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 12 (Enclosed), and presented on Figure 8D. The results of the analyses indicated that the samples submitted met Table 1 SCS for PAHs.

5.7.5 Commentary on Groundwater Quality

The results of the chemical analyses indicated that the concentration of chloride in MW/BH21B-1 on June 16, 2021 exceeded the applicable Table 1 SCS. MW/BH21B-1 is located within the asphalt paved driveway present on the Site. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable Site condition standard is exceeded at a property solely because of one of the following reasons, the applicable Site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”: “...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site condition standards for chloride in groundwater are deemed not to be exceeded.

It is noted that the screens of all of the monitoring wells were located partially within the shallow shale bedrock. Surficial soil sampling associated with fill material at each of the impacted wells indicated low concentrations of uranium present, and all surficial soil samples met the MECP Table 1 SCS for the concentration of uranium in soil. Based on the aforementioned considerations the elevated concentrations of uranium are inferred to be the result of the natural background conditions associated with the bedrock geology, and not contamination as defined under the EPA.

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 5-7: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
MW/BH21B-1 SS4	SDUPB1	Soil	PHCs, VOCs	All results were within the analytical protocol criteria for RPD.
MW/BH21B-2 SS4	SDUPB2	Soil	PHCs, VOCs	All results were within the analytical protocol criteria for RPD.
B-GS7	Dup-0630	Soil	Metals and ORPs	All results were within the analytical protocol criteria for RPD with the exception of Boron (total): <ul style="list-style-type: none"> The RPD limit for Boron is 30% however the RPD result between the parent and duplicate sample was 66.67%. The difference in the analytical results is likely a result of the heterogeneity of the soil.
BH21-8/SS2	DUP05	Soil	PHCs, BTEX	All results were within the analytical protocol criteria for RPD.
GS2	DUP06	Soil	Metals, OCPs	All results were within the analytical protocol criteria for RPD.
BH21-10A	DUP-02	Soil	Metals	All results were within the analytical protocol criteria for RPD.
BH21-11A	DUP-01	Soil	Metals	All results were within the analytical protocol criteria for RPD.
BH21-12	DUP04	Soil	PHCs, BTEX	All results were within the analytical protocol criteria for RPD.
BH21-13	DUP-3	Soil	VOCs	All results were within the analytical protocol criteria for RPD.
BH21-14	DUP01	Soil	PHCs, BTEX	All results were within the analytical protocol criteria for RPD.

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
	DUP02	Soil	VOCs	All results were within the analytical protocol criteria for RPD.
MW/BH21B-1	Dup-1	Groundwater	PHCs	All results were within the analytical protocol criteria for RPD.

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.

SGS routinely conducts internal QA/QC analyses in order to satisfy regulatory QA/QC requirements. The results of the SGS 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 SGS on the laboratory Certificates of Analysis. Commentary on the comments has been provided below:

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 will be prepared upon completion of the remedial excavation activities.

6.0 Conclusions

This Phase Two ESA involved that advancement of forty-five (45) boreholes and ten (10) hand-augured boreholes, the installation of twenty-two (22) monitoring wells, and the collection of soil and groundwater samples for analysis of the potential contaminants of

concern, including: PHCs, VOCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR 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, varying from 50 to 280 mm in thickness, was present at the surface of all the boreholes except BH/MW21B-1. BH/MW21B-2, BH/MW21B-3, B-GS3 to B-GS6, B-GS8 to B-GS10. A surficial layer of fill consisting of sandy silt, clayey silt and silty clay was encountered below topsoil in all the boreholes except GS1 and GS7, extending to depths ranging from 0.7 to 1.5 mbgs. The fill material consisted of some to trace of topsoil, organics, rootlets and gravel. Brick fragments and concrete pieces were observed in the fill material associated with B-GS6, B-GS10, MW21B-2 and MW21B-3. Below the fill, clayey silt till deposit was encountered in all the boreholes, overlying till/shale complex, to an approximate depth of 4.6 mbgs. Below the clayey silt till in all boreholes, a deposit of clayey silt till/shale complex was found overlying shale bedrock, at approximate depth of 4.6 m and extending to an approximate depth of 6.0m. This deposit generally consisted of clayey silt till mixed with highly weathered shale. Shale bedrock of Queenston Formation was encountered at depths ranging from 3.1 to 13.7 below the existing grade.
- ◆ The depth to groundwater was measured in all monitoring wells installed during the course of this investigation except MW/BH21-3. MW/BH21B-3 was dry at the time of this investigation. The monitoring wells were screened to intercept the groundwater water table. The groundwater levels were found to range between 0.98 and 15.06 mbgs with corresponding elevations of 151.89 to 137.36 metres above sea level (masl). 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 southwest towards a tributary of the Fourteen Mile Creek, located to the west of the Site. 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 and groundwater samples were collected and analyzed for metals and ORPs, PHCs, PAHs, VOCs and OCPs.

- ◆ The results of the soil chemical analyses identified elevated levels of EC and SAR associated with boreholes (MW/BH21B-1/SS2, MW/BH21B-2/SS1, B-GS4 and B-GS6) located within the asphalt paved area present on-Site at 3278 Regional Road 25, and are inferred to be linked to the application of de-icing agents. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable site condition standard is exceeded at a property solely because of one of the following reasons, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”: “...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site Condition Standards (SCS) for EC and SAR are deemed not to be exceeded for the purposes of filing a RSC. It should be noted that disposal premiums may still be incurred for the off-site disposal of EC/SAR impacted soils at the time of construction.
 - ◆ Soil containing elevated concentrations of Metals above the SCS were present within 3278 Regional Road 25, in the vicinity of where miscellaneous construction debris and material stored. Metals impacts in soil were also identified in the southern portion of the Site, in the vicinity of where unknown source of fill material has applied to the vicinity of former buildings. The vertical extent of the Metals impacts was found to be less than 0.8 mbgs. It is anticipated that bulk excavation associated with the redevelopment of the Site will facilitate the complete removal (remediation) of the metal impacted soil at the Site. Verification sampling should be completed upon removal of metals impacted soil at the Site. Upon successful completion of the post remediation soil verification sampling, the RSC filling process may commence.
 - ◆ Soil containing elevated concentrations of PHCs F4 (C34 to C50) above the SCS were present within BH21-10 located in the vicinity of former site buildings, within southern portion of the Site. Per Section 48(2) of O.Reg. 153/04: *“If two or more samples of soil or sediment are taken from sampling points at the same sampling location that are at the same depth on, in or under the property, the property meets a standard mentioned in subsection (1) if the average of the sampling results meets the standard and in no other circumstances”*. For the purposes of averaging, One (1) additional borehole was advanced immediate next to BH21-10. Soil samples, including one (1) field duplicate for QA/QC purpose were collected and submitted for analysis of PHCs within the same depth that BH21-10/SS2 had been collected (0.8-1.4 mbgs). The average of the above listed analyses, including the result of the initial exceedance for BH21-10/SS2, was 79 µg/g, which meets the Table 1 SCS for 120 µg/g
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for PHC F4 (C34-C50). As such, the concentration of PHC F4 at BH21-10 is considered to meet the Table 1 SCS.

- ◆ The results of the chemical analyses indicated that the concentration of chloride in MW/BH21B-1 on June 16, 2021 exceeded the applicable Table 1 SCS. MW/BH21B-1 is located within the asphalt paved driveway present on the Site. Per Section 49.1 (1) of O.Reg. 407/19, published December 4, 2019 *“If an applicable Site condition standard is exceeded at a property solely because of one of the following reasons, the applicable Site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act”*: *“...that a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both”*. Based on this provision, the Site condition standards for chloride in groundwater are deemed not to be exceeded.
- ◆ Elevated concentrations of uranium were identified in monitoring wells MW/BH21B-1, MW/BH21B-2 and MW21-3. It is noted that these monitoring wells are screened within or just above the shale bedrock. Surficial soil sampling associated with fill material at each of the impacted wells indicated low concentrations of uranium present, and all surficial soil samples met the MECP Table 1 SCS for the concentration of uranium in soil. Based on the aforementioned considerations the elevated concentrations of uranium are inferred to be the result of the natural background conditions associated with the bedrock geology, and not contamination as defined under the EPA.
- ◆ It is noted that BH/MW21B-3 located within the eastern portion of the site was dry throughout the Phase Two ESA, therefore the groundwater quality associated with APEC 1C could not be assessed. Groundwater sampling in this location will be required for the purposes of a future RSC submission. It is noted that soils in BH/MW21B-3 met the applicable SCS, as such the potential for groundwater impacts associated with the fuel oil tank is considered to be low.
- ◆ The results of this Phase Two ESA indicate that the applicable Site Condition Standards for soil have not been met. It is anticipated that the impacted soils identified can be managed through remedial excavation and off-site disposal. Post-remediation verification soil sampling in accordance with O.Reg. 153/04 will be required before an RSC can be filed for the Site.
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

6.1 Qualifications of the Assessors

Genevieve Klein, B.Sc.

Ms. Klein is an environmental technician with DS Consultants Ltd. Genevieve holds a Bachelor of Science in Environmental Science Degree from the University of Guelph, has been working in the environmental sector since 2017 and has experience conducting Phase I and Phase Two Environmental Site Assessments.

Ms. Kirstin Olsen, MSc.

Ms. Olsen is a Project Manager in the Environmental Services Department at DS Consultants Limited. Ms. Olsen has a bachelor's degree in Animal, Plant and Environmental Science, as well as a Master of Science Degree in Environmental Science, Ecology and Conservation from the University of the Witwatersrand (Johannesburg, South Africa). Ms. Olsen has personally completed over three hundred detailed environmental assessments across a wide array of scientific disciplines including: Phase One & Two Environmental Site Assessments, Remedial Excavation & Injection Oversight, Hydrogeological Investigations, EASR Registration/PTTW Application, Aquatic Ecological Delineation, Assessment & Planning, Toxicological, Soil & Water Impact and Risk Assessment, as well as Environmental Construction Monitoring & Performance Auditing.

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

Mr. Fioravanti is the Manager of Environmental Services with DS Consultants Limited. Patrick 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). Patrick has over ten years of environmental consulting experience and has conducted and/or managed hundreds of projects in his professional experience. Patrick has extensive experience conducting Phase One and Phase Two Environmental Site Assessments in support of brownfields redevelopment in urban settings, and been involved in numerous remediation projects, supported many risk assessments, and successfully filed Records of Site Condition with the Ministry of Environment, Conservation and Parks. He has conducted work across southern and eastern Ontario, and Quebec in his professional experience. Patrick is considered a Qualified Person to conduct Environmental Site Assessments as defined by Ontario Regulation 153/04 (as amended).

6.2 Signatures

DS Consultants Ltd. conducted this Phase One Environmental Site Assessment and confirms the findings and conclusions contained within this report.

Yours truly,

DS Consultants Ltd.

Prepared by:



Genevieve Klein, BSc.

Environmental Technician

Reviewed by:



Kirstin Olsen, M.Sc.

Project Manager – Environmental



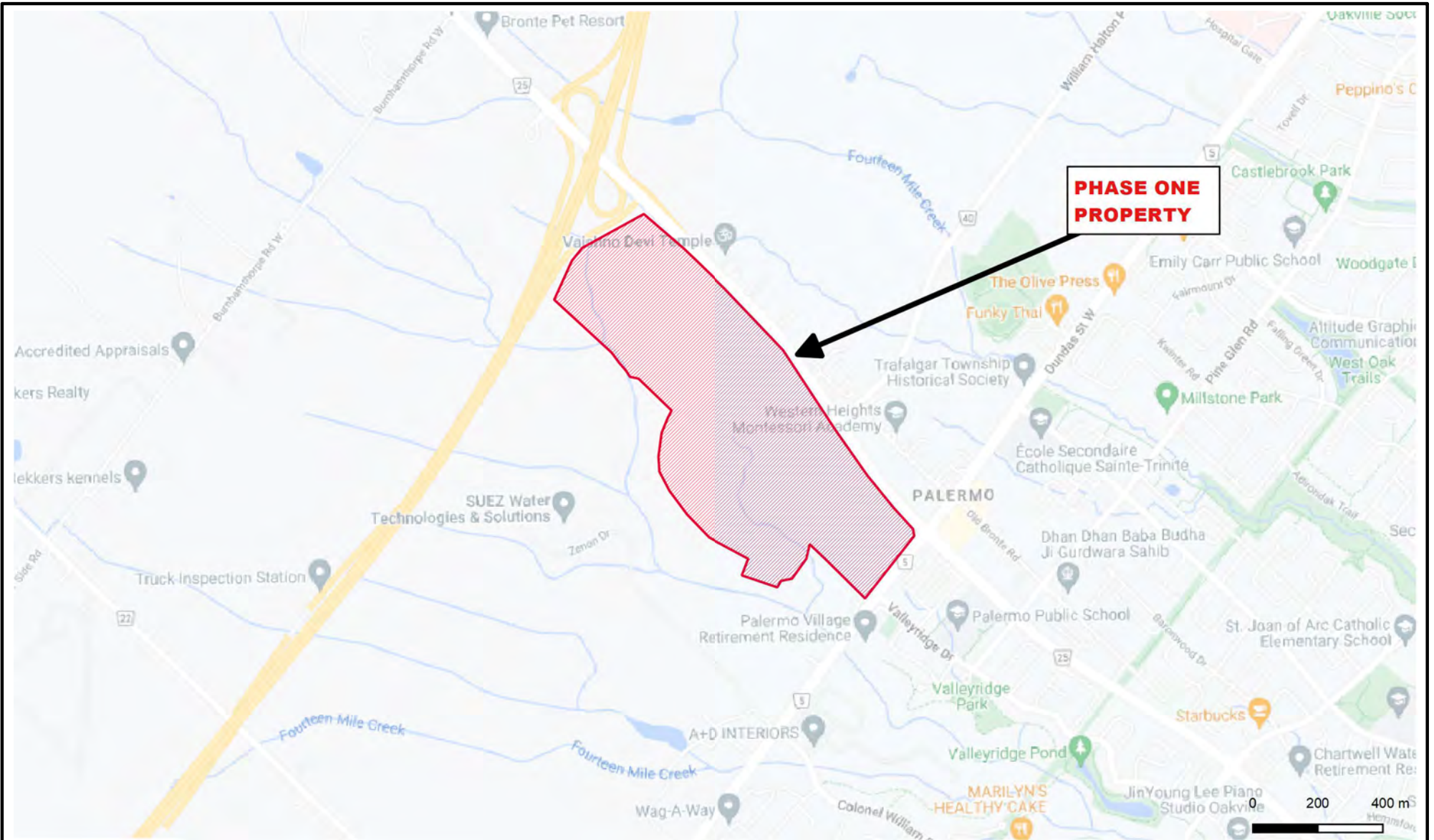
Patrick Fioravanti, B.Sc., P.Geo., QP_{ESA}

Manager – Environmental Services



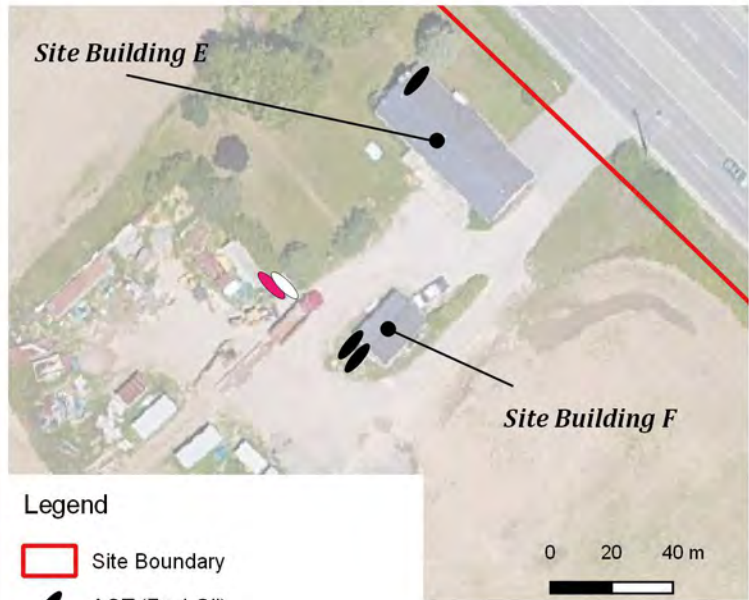
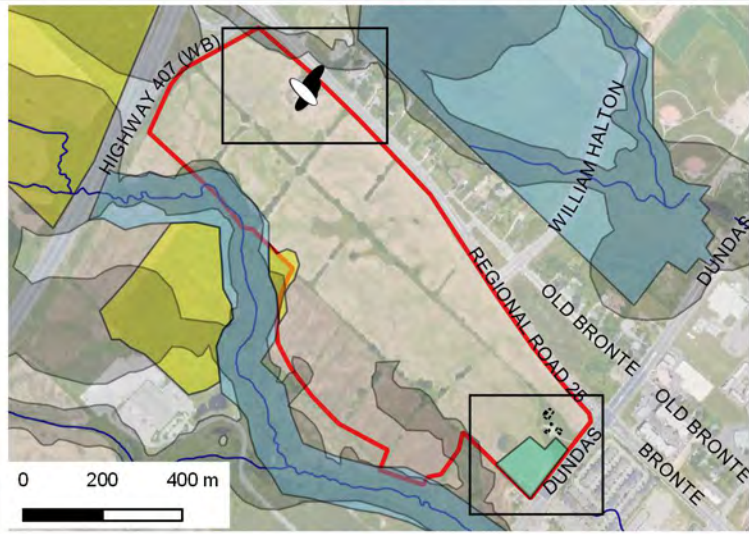


Figures



Legend
 Site Boundary

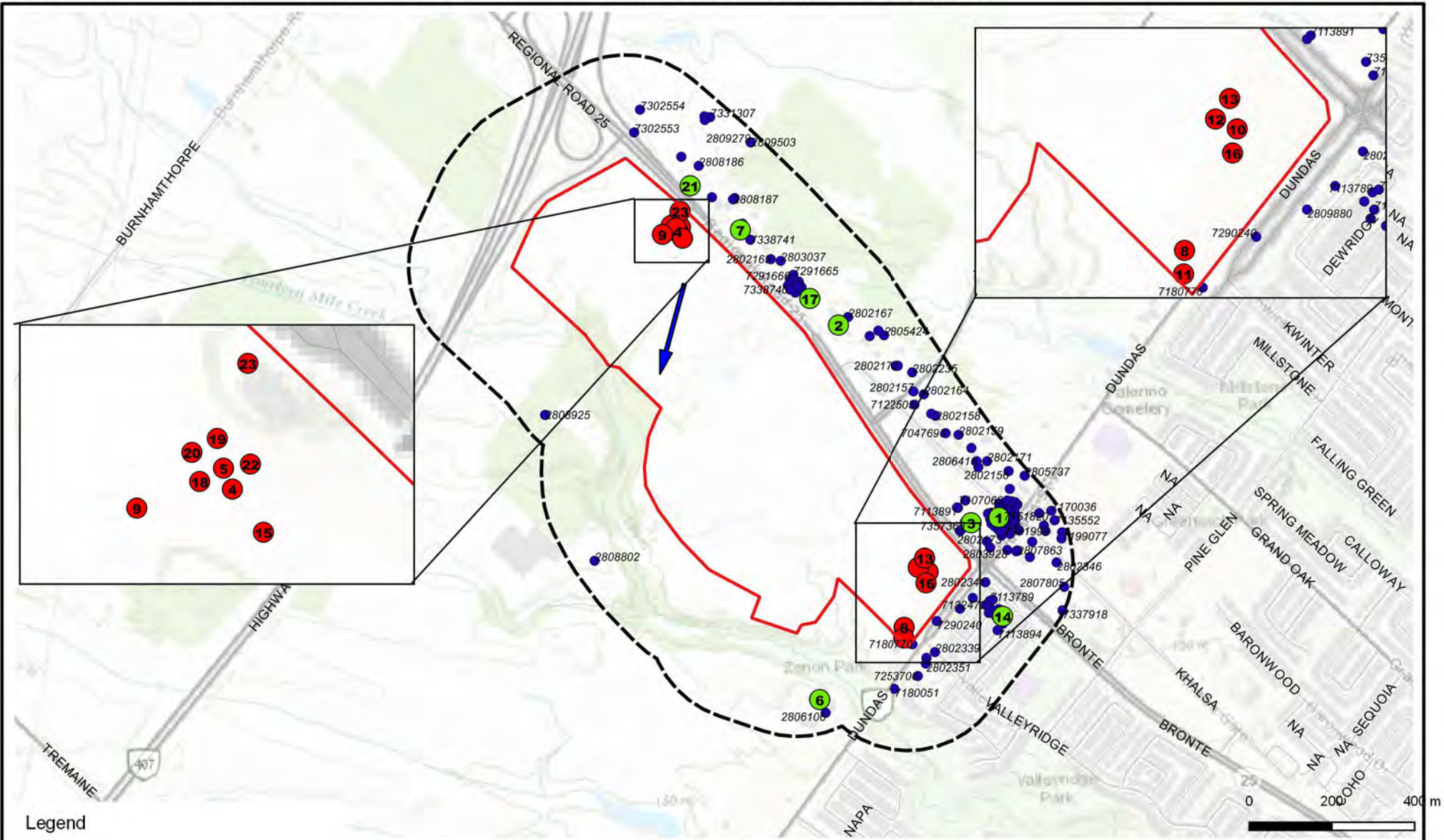
 DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON			
	Title: SITE LOCATION PLAN			
Client: PALERMO VILLAGE CORPORATION	Size: 8.5 x 11	Approved By: K.O.	Drawn By: P.P	Date: February 2023
	Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 1
Image/Map Source: Google Streetmap Image				



Legend

- Site Boundary
- AST (Fuel Oil)
- AST (Dyed Diesel)
- AST (Clear Diesel)
- Former Orchard
- Natural Heritage System
- Region of Halton Regulation Limit
- River Valley Area

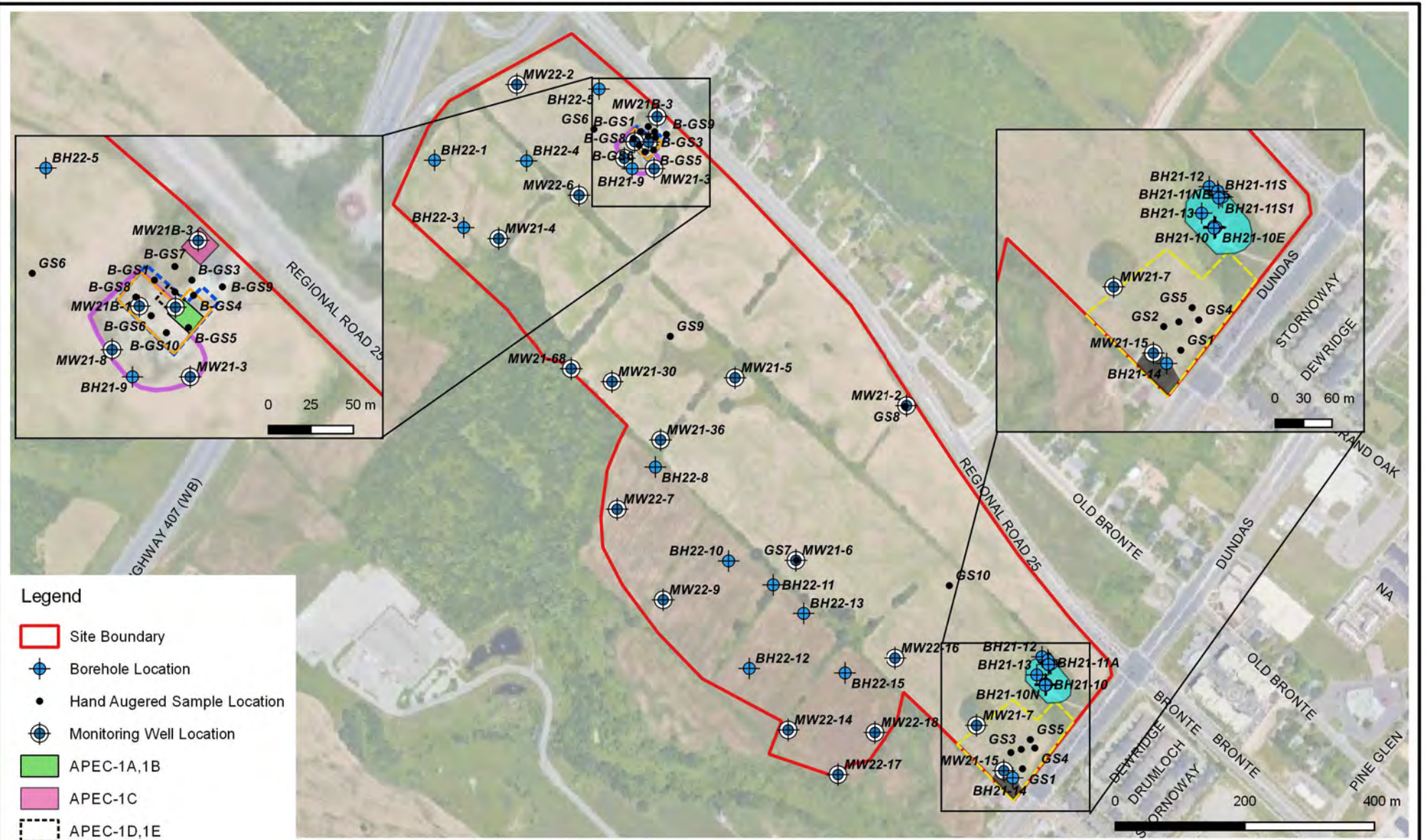
<p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON			
	Title: PHASE ONE PROPERTY SITE PLAN			
Client: PALERMO VILLAGE CORPORATION	Size: 8.5 x 11	Approved By: K.O.	Drawn By: P.P	Date: February 2023
	Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 2
Image/Map Source: Google Satellite Image				



Legend

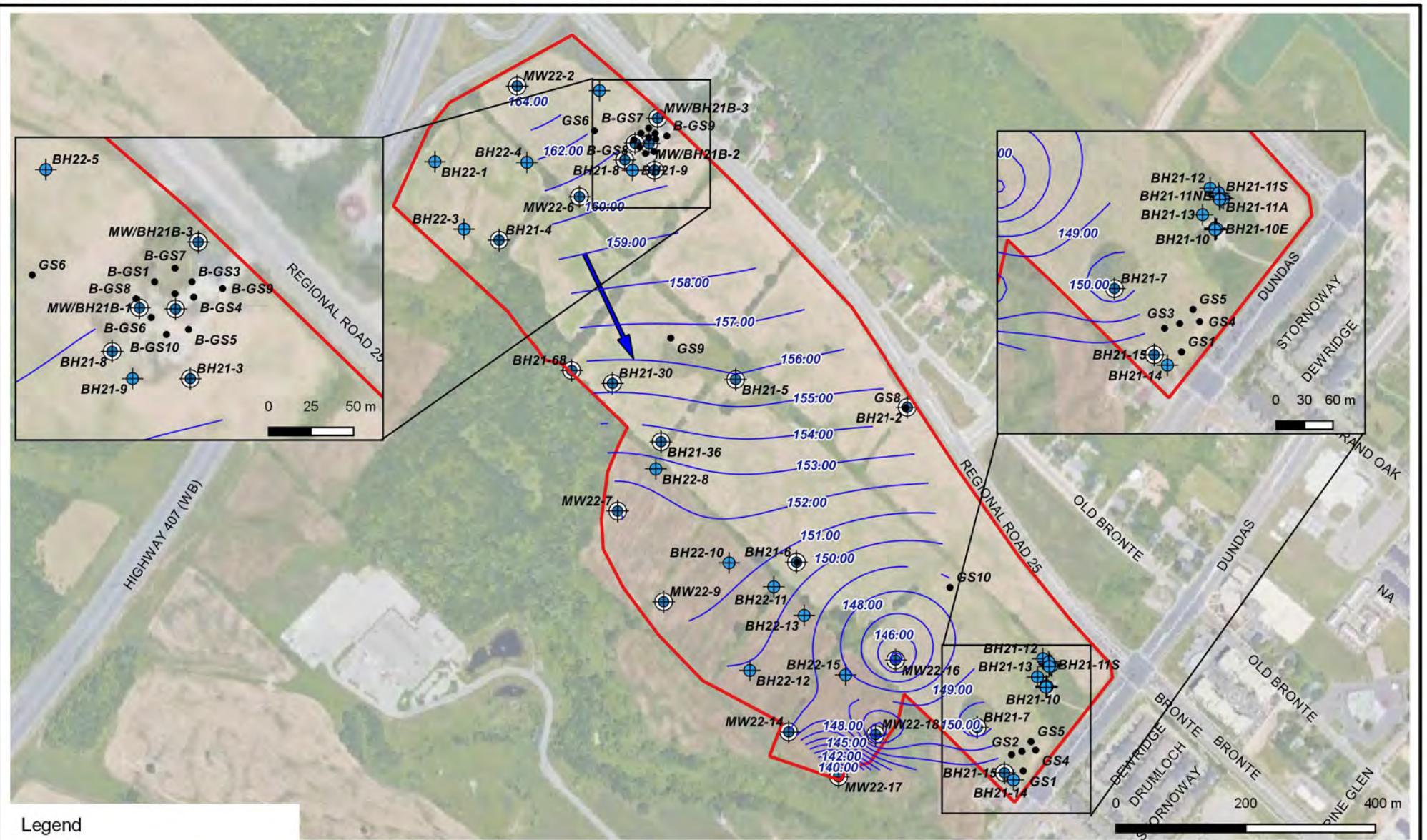
- Site Boundary
- 250m Buffer
- PCA Not Contributing to APEC
- PCA Contributing to APEC
- Registered Water Well (MECP WWR)
- ➔ Groundwater Flow Direction

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	Title: PCA WITHIN PHASE ONE STUDY AREA			
Client: PALERMO VILLAGE CORPORATION	Size: 8.5 x 11	Approved By: K.O.	Drawn By: P.P	Date: February 2023
	Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 4
Image/Map Source: Google Satellite Image				



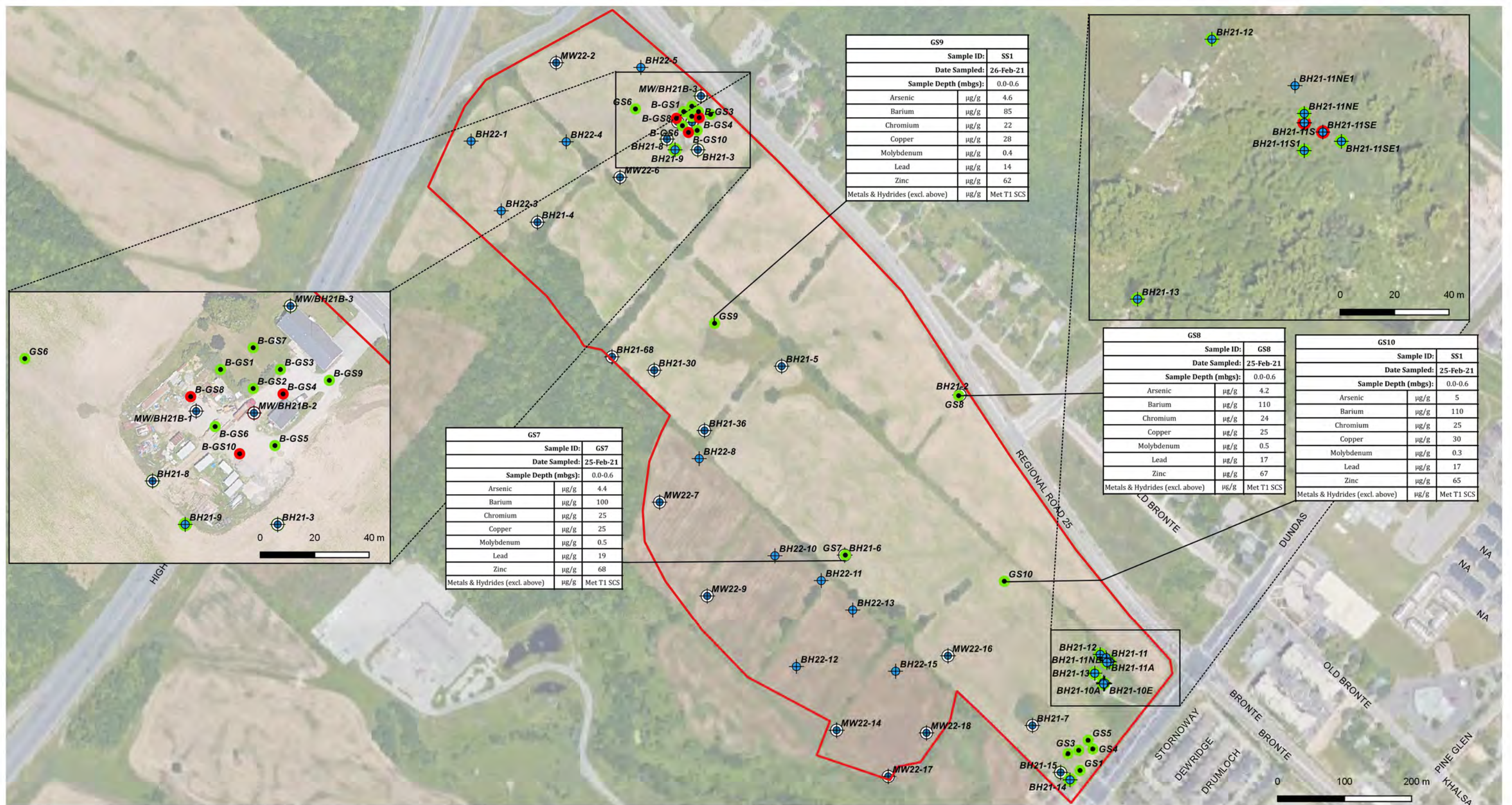
- Legend**
- Site Boundary
 - + Borehole Location
 - Hand Augered Sample Location
 - ⊕ Monitoring Well Location
 - APEC-1A,1B
 - APEC-1C
 - APEC-1D,1E
 - APEC-2
 - APEC-3
 - APEC-4A, 4B, 4C, 4D, 4E
 - APEC-5
 - APEC-6
 - APEC-7

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	Title: BOREHOLE LOCATION PLAN WITH APECs			
Client:	Size:	Approved By:	Drawn By:	Date:
PALERMO VILLAGE CORPORATION	8.5 x 11	K.O.	P.P	February 2023
	Rev:	Scale:	Project No.:	Figure No.:
	0	As Shown	19-323-100	5
Image/Map Source: Google Streetmap Image				



- Legend**
- Site Boundary
 - ⊕ Borehole Location
 - ⊗ Monitoring Well Location
 - Hand Augered Sample Location
 - Groundwater Elevation Contours
 - ➔ Groundwater Flow Direction

 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON			
	Title: GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION			
Client: PALERMO VILLAGE CORPORATION	Size: 8.5 x 11	Approved By: K.O.	Drawn By: P.P	Date: February 2023
	Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 6
Image/Map Source: Google Satellite Image				



GS9		
Sample ID:	SS1	
Date Sampled:	26-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.6
Barium	µg/g	85
Chromium	µg/g	22
Copper	µg/g	28
Molybdenum	µg/g	0.4
Lead	µg/g	14
Zinc	µg/g	62
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS7		
Sample ID:	GS7	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.4
Barium	µg/g	100
Chromium	µg/g	25
Copper	µg/g	25
Molybdenum	µg/g	0.5
Lead	µg/g	19
Zinc	µg/g	68
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS8		
Sample ID:	GS8	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.2
Barium	µg/g	110
Chromium	µg/g	24
Copper	µg/g	25
Molybdenum	µg/g	0.5
Lead	µg/g	17
Zinc	µg/g	67
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS10		
Sample ID:	SS1	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5
Barium	µg/g	110
Chromium	µg/g	25
Copper	µg/g	30
Molybdenum	µg/g	0.3
Lead	µg/g	17
Zinc	µg/g	65
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

Legend

- Site Boundary
- ⊕ Borehole Location
- ⊗ Monitoring Well Location
- Hand Augered Sample Location
- Sample Met Applicable Standards
- Sample Exceeds Applicable Standards

Parameter	Units	Table 1 SCS
Arsenic	µg/g	18
Barium	µg/g	220
Chromium	µg/g	70
Copper	µg/g	92
Molybdenum	µg/g	2
Lead	µg/g	120
Zinc	µg/g	290

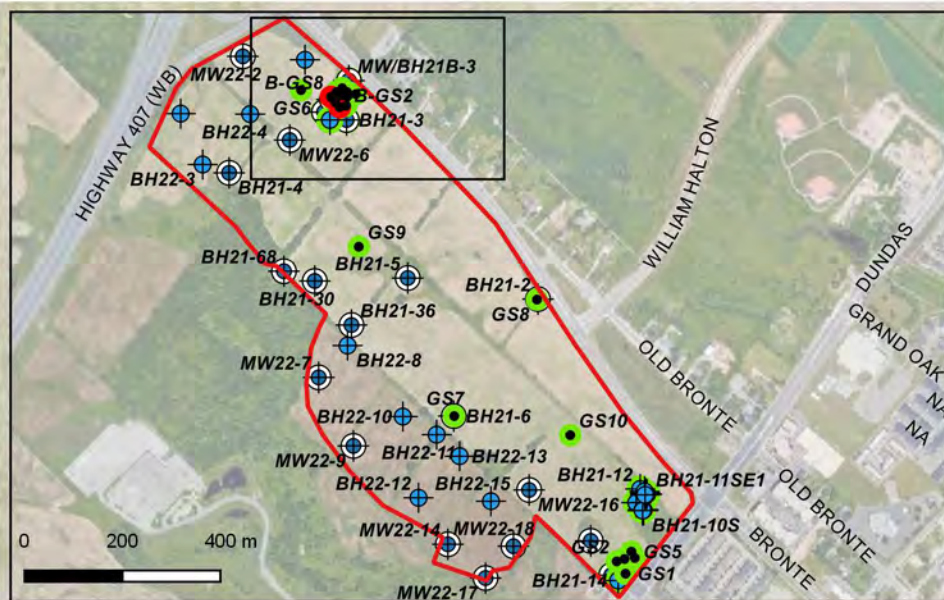


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Client: PALERMO VILLAGE CORPORATION

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON			
Title: SOIL CHARACTERIZATION - METALS AND HYDRIDE-FORMING METALS			
Size: 11x17	Approved By: K.O.	Drawn By: P.P	Date: February 2023
Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 7A
Image/Map Source: Google Satellite Image			





B-GS1		
Sample ID:	B-GS1	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	3.4
Barium	µg/g	41
Chromium	µg/g	11
Copper	µg/g	14
Molybdenum	µg/g	0.3
Lead	µg/g	20
Zinc	µg/g	42
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS7			
Sample ID:	B-GS7	DUP-0630	
Date Sampled:	30-Jun-21	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	0.0-0.6	
Arsenic	µg/g	2.6	2.6
Barium	µg/g	38	37
Chromium	µg/g	9.6	9.9
Copper	µg/g	15	16
Molybdenum	µg/g	0.2	0.2
Lead	µg/g	13	13
Zinc	µg/g	35	36
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS	Met T1 SCS

B-GS3		
Sample ID:	B-GS3	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.5
Barium	µg/g	52
Chromium	µg/g	12
Copper	µg/g	19
Molybdenum	µg/g	0.6
Lead	µg/g	22
Zinc	µg/g	74
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS9		
Sample ID:	B-GS9	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	8.2
Barium	µg/g	22
Chromium	µg/g	4.1
Copper	µg/g	9.9
Molybdenum	µg/g	1.1
Lead	µg/g	23
Zinc	µg/g	220
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS4		
Sample ID:	B-GS4	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	6.9
Barium	µg/g	55
Chromium	µg/g	17
Copper	µg/g	54
Molybdenum	µg/g	1.4
Lead	µg/g	70
Zinc	µg/g	330
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS5		
Sample ID:	B-GS5	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.7
Barium	µg/g	53
Chromium	µg/g	13
Copper	µg/g	25
Molybdenum	µg/g	0.8
Lead	µg/g	40
Zinc	µg/g	200
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS8		
Sample ID:	B-GS8	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	19
Barium	µg/g	72
Chromium	µg/g	25
Copper	µg/g	47
Molybdenum	µg/g	1.1
Lead	µg/g	34
Zinc	µg/g	190
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS6		
Sample ID:	B-GS6	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	7.9
Barium	µg/g	34
Chromium	µg/g	18
Copper	µg/g	71
Molybdenum	µg/g	1.7
Lead	µg/g	42
Zinc	µg/g	270
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS


BH21-9		
Sample ID:	SS2	
Date Sampled:	26-Feb-21	
Sample Depth (mbgs):	0.8-1.4	
Arsenic	µg/g	4
Barium	µg/g	81
Chromium	µg/g	18
Copper	µg/g	26
Molybdenum	µg/g	0.4
Lead	µg/g	11
Zinc	µg/g	52
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS2		
Sample ID:	B-GS2	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	8.2
Barium	µg/g	26
Chromium	µg/g	13
Copper	µg/g	26
Molybdenum	µg/g	1
Lead	µg/g	32
Zinc	µg/g	74
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

B-GS10		
Sample ID:	B-GS10	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	10
Barium	µg/g	37
Chromium	µg/g	94
Copper	µg/g	110
Molybdenum	µg/g	2.3
Lead	µg/g	110
Zinc	µg/g	450
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

Parameter	Units	Table 1 SCS
Arsenic	µg/g	18
Barium	µg/g	220
Chromium	µg/g	70
Copper	µg/g	92
Molybdenum	µg/g	2
Lead	µg/g	120
Zinc	µg/g	290

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - + Borehole Location
 - ⊕ Monitoring Well Location
 - Sample Met Applicable Standards
 - Sample Exceeds Applicable Standards



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Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5,
7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON

Title: SOIL CHARACTERIZATION - METALS AND HYDRIDE-FORMING METALS

Client: PALERMO VILLAGE CORPORATION

Size: 11x17

Rev: 0

Approved By: K.O.

Scale: As Shown

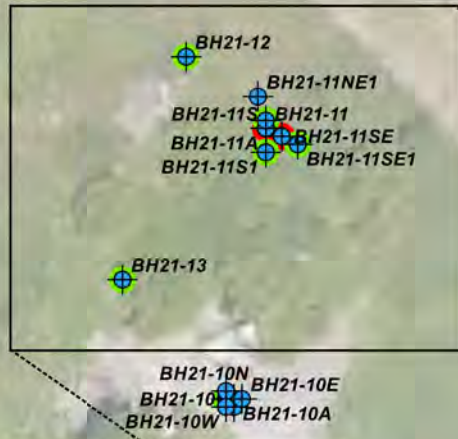
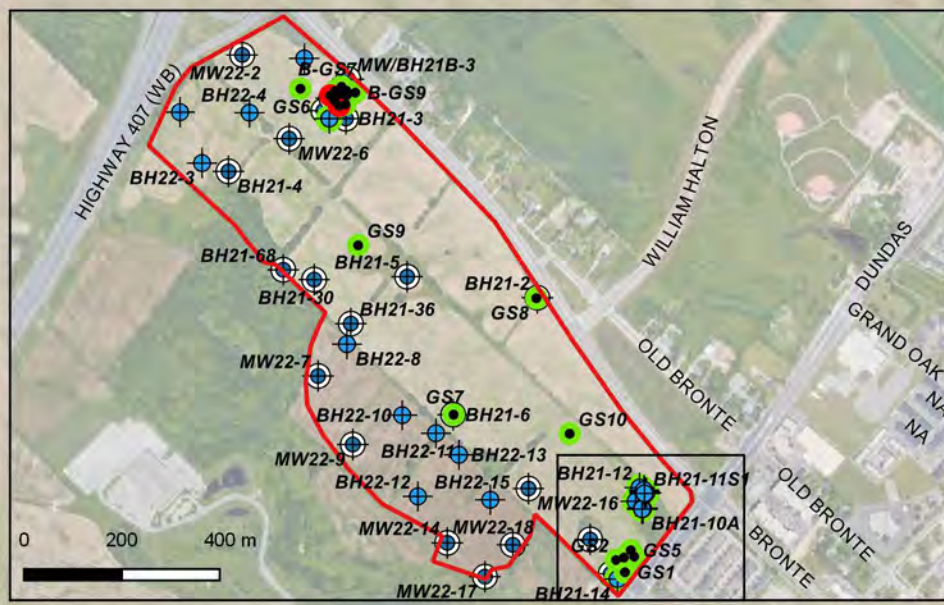
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Drawn By: P.P

Project No.: 19-323-100

Date: February 2023

Figure No.: 7Ai

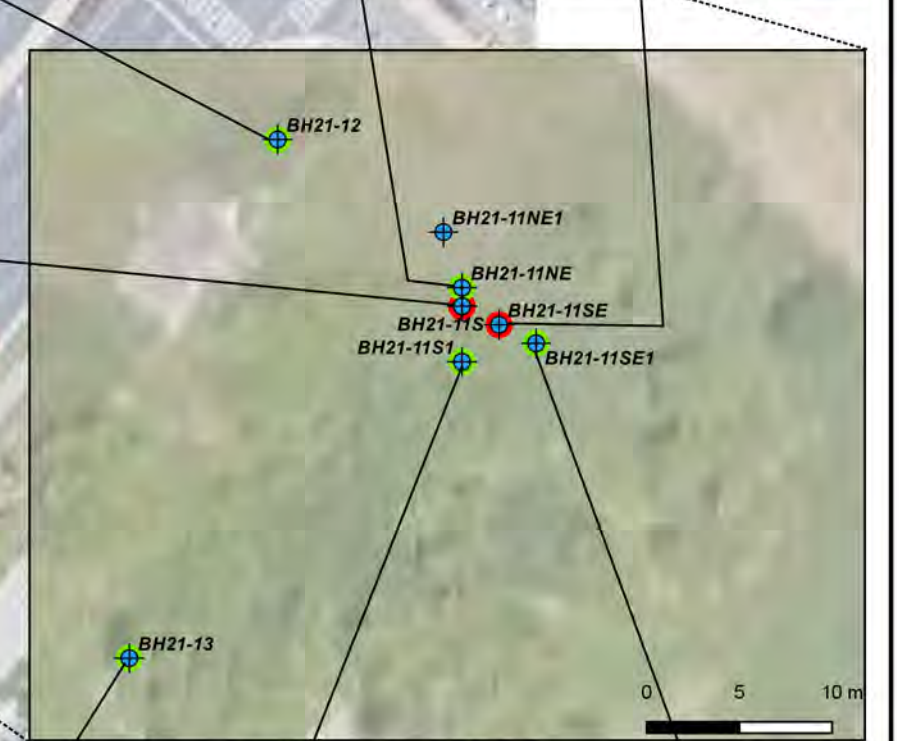


BH21-12		
Sample ID:	SS1	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	6.2
Barium	µg/g	120
Chromium	µg/g	31
Copper	µg/g	39
Molybdenum	µg/g	0.6
Lead	µg/g	22
Zinc	µg/g	96
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-11NE		
Sample ID:	SS1	
Date Sampled:	6-Apr-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.2
Barium	µg/g	88
Chromium	µg/g	18
Copper	µg/g	23
Molybdenum	µg/g	0.5
Lead	µg/g	29
Zinc	µg/g	97
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-11SE		
Sample ID:	SS1	
Date Sampled:	6-Apr-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.4
Barium	µg/g	127
Chromium	µg/g	22
Copper	µg/g	46
Molybdenum	µg/g	1
Lead	µg/g	82
Zinc	µg/g	548
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-11S		
Sample ID:	SS1	
Date Sampled:	6-Apr-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.2
Barium	µg/g	147
Chromium	µg/g	23
Copper	µg/g	33
Lead	µg/g	76
Zinc	µg/g	428
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS



GS5		
Sample ID:	GS5	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.6
Barium	µg/g	97
Chromium	µg/g	24
Copper	µg/g	38
Molybdenum	µg/g	0.4
Lead	µg/g	16
Zinc	µg/g	70
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS4		
Sample ID:	GS4	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.2
Barium	µg/g	120
Chromium	µg/g	27
Copper	µg/g	31
Molybdenum	µg/g	0.5
Lead	µg/g	20
Zinc	µg/g	79
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS3		
Sample ID:	GS3	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.6
Barium	µg/g	100
Chromium	µg/g	24
Copper	µg/g	29
Molybdenum	µg/g	0.5
Lead	µg/g	18
Zinc	µg/g	69
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS2		
Sample ID:	GS2	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	3.5
Barium	µg/g	86
Chromium	µg/g	22
Copper	µg/g	21
Molybdenum	µg/g	0.5
Lead	µg/g	21
Zinc	µg/g	68
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-14		
Sample ID:	SS1	
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	5.4
Barium	µg/g	110
Chromium	µg/g	26
Copper	µg/g	34
Molybdenum	µg/g	0.5
Lead	µg/g	18
Zinc	µg/g	72
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

GS1		
Sample ID:	GS1	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.6
Barium	µg/g	87
Chromium	µg/g	22
Copper	µg/g	24
Molybdenum	µg/g	0.5
Lead	µg/g	18
Zinc	µg/g	64
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS


BH21-13		
Sample ID:	SS1	
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.2
Barium	µg/g	98
Chromium	µg/g	17
Copper	µg/g	29
Molybdenum	µg/g	0.5
Lead	µg/g	70
Zinc	µg/g	170
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-11S1		
Sample ID:	SS1	
Date Sampled:	6-Apr-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4
Barium	µg/g	80
Chromium	µg/g	18
Copper	µg/g	21
Molybdenum	µg/g	0.3
Lead	µg/g	11
Zinc	µg/g	62
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

BH21-11SE1		
Sample ID:	SS1	
Date Sampled:	6-Apr-21	
Sample Depth (mbgs):	0.0-0.6	
Arsenic	µg/g	4.8
Barium	µg/g	76
Chromium	µg/g	19
Copper	µg/g	21
Molybdenum	µg/g	0.6
Lead	µg/g	12
Zinc	µg/g	62
Metals & Hydrides (excl. above)	µg/g	Met T1 SCS

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - + Borehole Location
 - ⊕ Monitoring Well Location
 - Sample Met Applicable Standards
 - Sample Exceeds Applicable Standards


Parameter	Units	Table 1 SCS
Arsenic	µg/g	18
Barium	µg/g	220
Chromium	µg/g	70
Copper	µg/g	92
Molybdenum	µg/g	2
Lead	µg/g	120
Zinc	µg/g	290



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Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON

Title: **SOIL CHARACTERIZATION - METALS AND HYDRIDE-FORMING METALS**



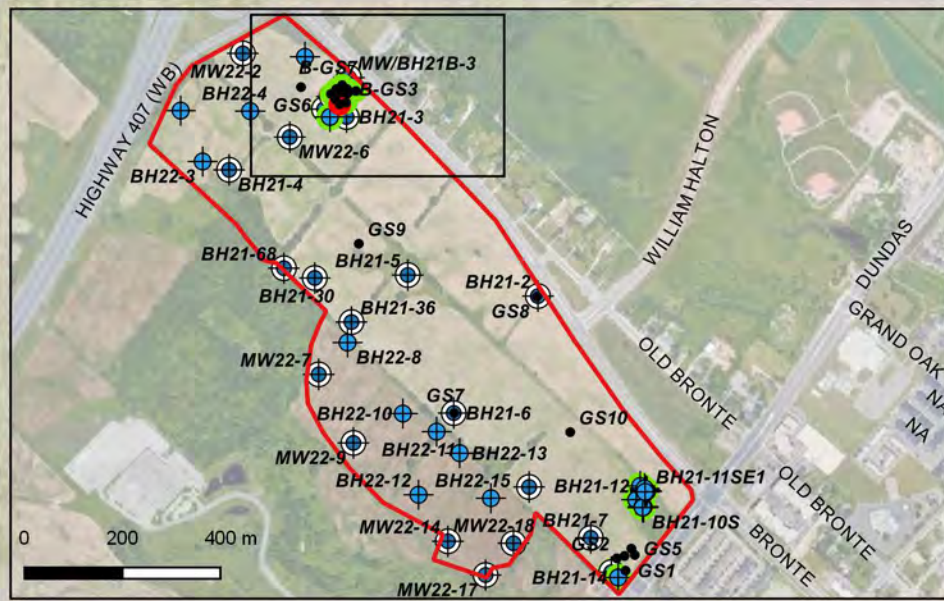
Client: PALERMO VILLAGE CORPORATION

Size: 11x17
Rev: 0

Approved By: K.O.
Scale: As Shown
Image/Map Source: Google Satellite Image

Drawn By: P.P.
Project No.: 19-323-100

Date: February 2023
Figure No.: 7Aii



B-GS1		
Sample ID:	B-GS1	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.3
EC	mS/cm	0.16
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS7			
Sample ID:	B-GS7	DUP-0630	
Date Sampled:	30-Jun-21		
Sample Depth (mbgs):	0.0-0.6	0.0-0.6	
Parameter	Units	Concentration	
SAR	-	<0.2	<0.2
EC	mS/cm	0.17	0.25
pH	NV	-	-
Cr (VI)	µg/g	<0.2	0.3
B-HWS, CN-,Hg	-	Met T1 SCS	

B-GS3		
Sample ID:	B-GS3	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.7
EC	mS/cm	0.14
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS9		
Sample ID:	B-GS9	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	<0.2
EC	mS/cm	0.29
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS4		
Sample ID:	B-GS4	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	3.6*
EC	mS/cm	0.27
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS5		
Sample ID:	B-GS5	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	1.1
EC	mS/cm	0.26
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS8		
Sample ID:	B-GS8	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.4
EC	mS/cm	0.24
pH	NV	-
Cr (VI)	µg/g	0.4
B-HWS, CN-,Hg	-	Met T1 SCS

B-GS8		
Sample ID:	B-GS8	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.4
EC	mS/cm	0.24
pH	NV	-
Cr (VI)	µg/g	0.4
B-HWS, CN-,Hg	-	Met T1 SCS

BH21-9		
Sample ID:	SS2	
Date Sampled:	26-Feb-21	
Sample Depth (mbgs):	0.8-1.4	
Parameter	Units	Concentration
SAR	-	<0.2
EC	mS/cm	0.14
pH	NV	7.72
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

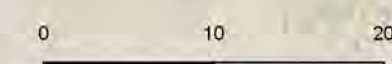
Parameter	Unit	Table 1 SCS
Sodium Adsorption Ratio (SAR)	-	2.4
Electrical Conductivity (EC)	mS/cm	0.57
Chromium VI	µg/g	0.66

B-GS2		
Sample ID:	B-GS2	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.4
EC	mS/cm	0.18
pH	NV	-
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

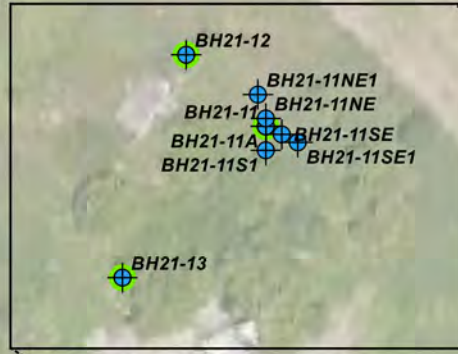
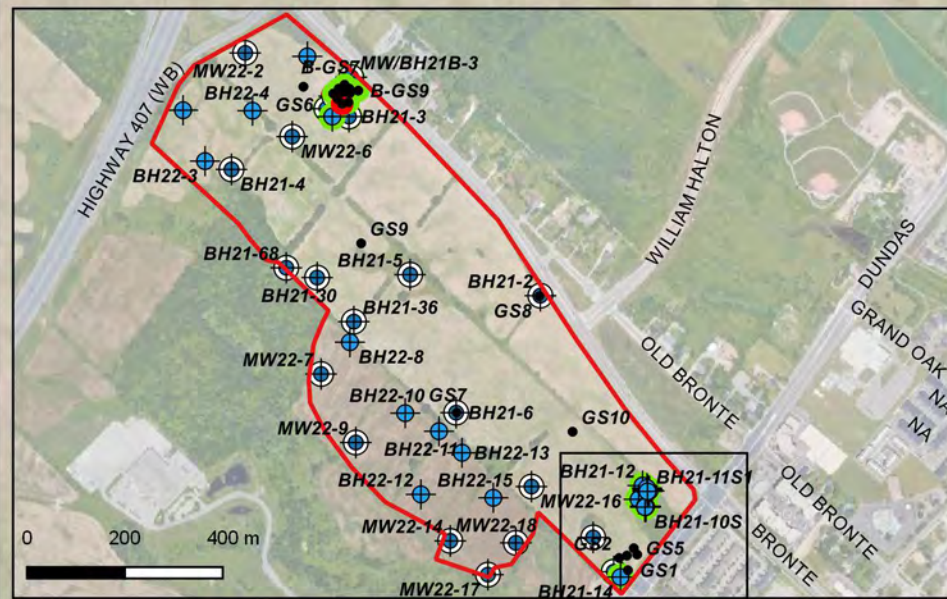
B-GS10		
Sample ID:	B-GS10	
Date Sampled:	30-Jun-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.4
EC	mS/cm	0.3
pH	NV	-
Cr (VI)	µg/g	3.8
B-HWS, CN-,Hg	-	Met T1 SCS

Legend

- Site Boundary
- Hand Augered Sample Location
- ⊕ Borehole Location
- ⊕ Monitoring Well Location
- Sample Met Applicable Standards
- Sample Exceeds Applicable Standards

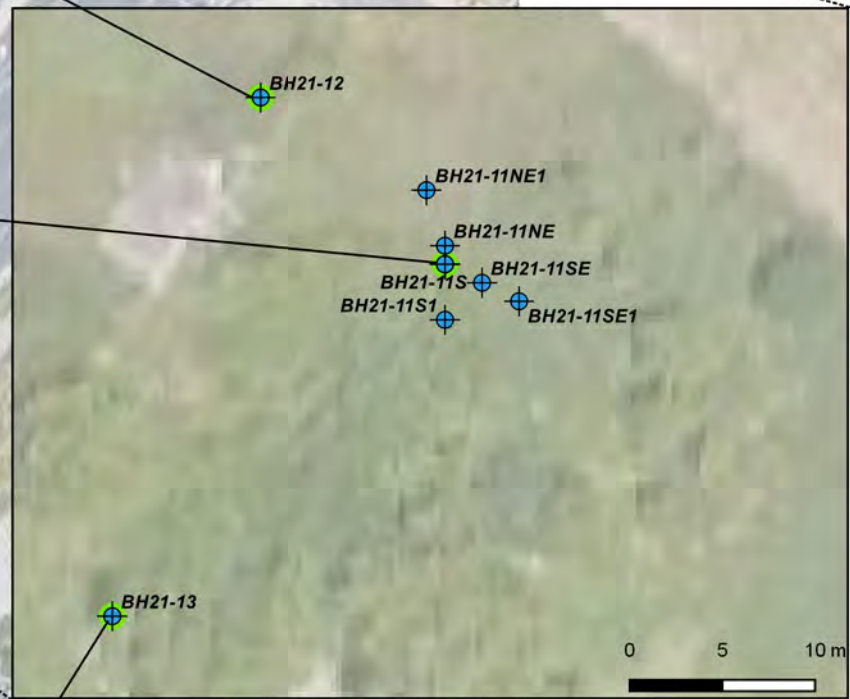


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	Title: SOIL CHARACTERIZATION - ORPs			
Client:	Size:	Approved By:	Drawn By:	Date:
PALERMO VILLAGE CORPORATION	11x17	K.O.	P.P	February 2023
Rev:	Scale:	Project No.:	Figure No.:	
0	As Shown	19-323-100	7Bi	
Image/Map Source: Google Satellite Image				



BH21-12		
Sample ID:	SS1	
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	<0.2
EC	mS/cm	0.19
pH	NV	7.46
Cr (VI)	µg/g	0.3
B-HWS, CN-,Hg	-	Met T1 SCS

BH21-11		
Sample ID:	SS1	
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	<0.2
EC	mS/cm	0.21
pH	NV	7.51
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS



BH21-13		
Sample ID:	SS1	
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.2
EC	mS/cm	0.38
pH	NV	7.55
Cr (VI)	µg/g	<0.2
B-HWS, CN-,Hg	-	Met T1 SCS

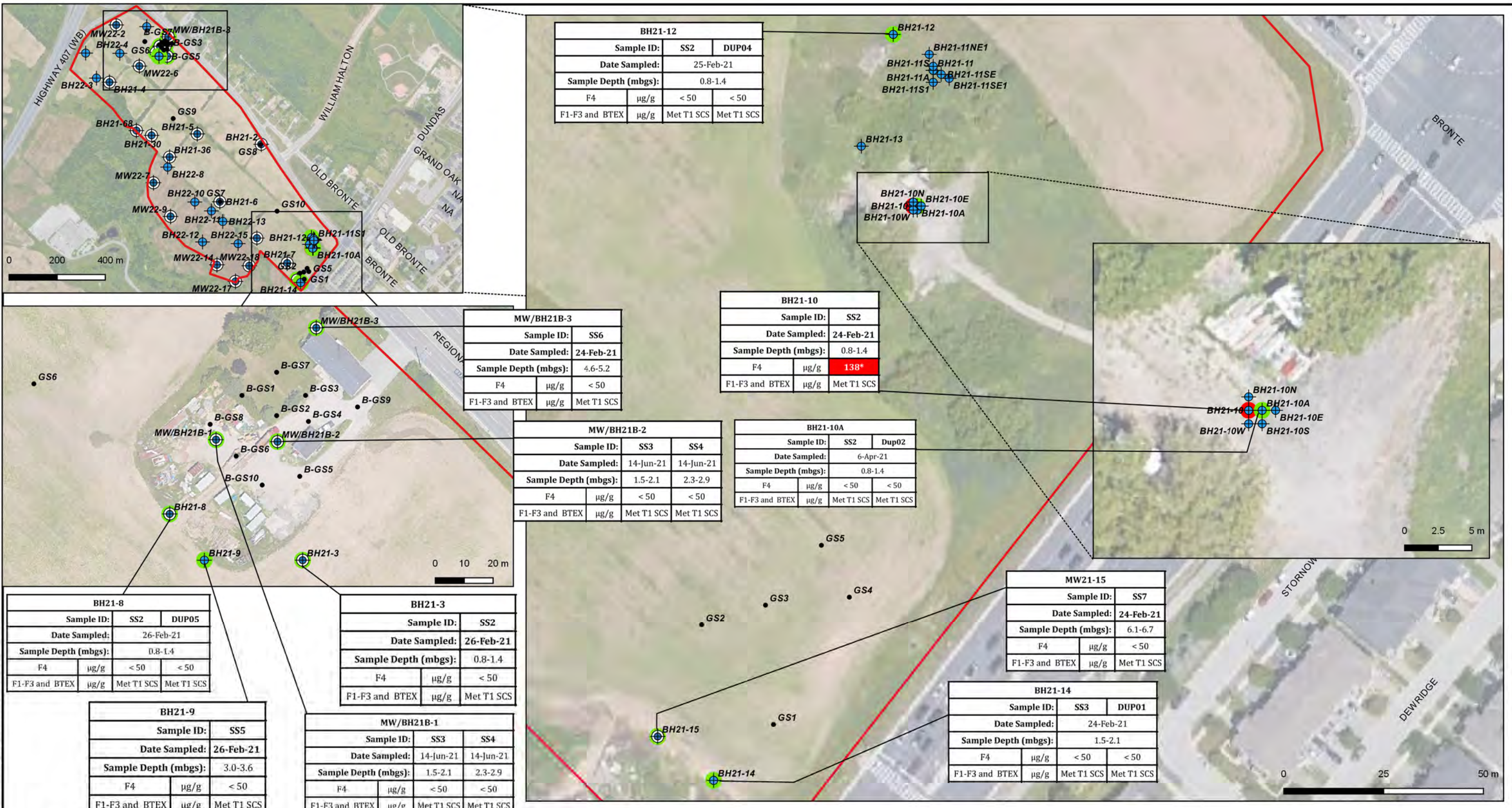
BH21-14		
Sample ID:	SS1	
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
Parameter	Units	Concentration
SAR	-	0.2
EC	mS/cm	0.2
pH	NV	7.57
Cr (VI)	µg/g	0.4
B-HWS, CN-,Hg	-	Met T1 SCS

Parameter	Unit	Table 1 SCS
Sodium Adsorption Ratio (SAR)	-	2.4
Electrical Conductivity (EC)	mS/cm	0.57
Chromium VI	µg/g	0.66

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards
 - Sample Exceeds Applicable Standards

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	Title: SOIL CHARACTERIZATION - ORPs			
Client: PALERMO VILLAGE CORPORATION	Size: 11x17	Approved By: K.O.	Drawn By: P.P	Date: March 2023
Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 7Bii	Image/Map Source: Google Satellite Image

J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-OGIS\WEST PARCEL\Phase Two\Figure 7C - Soil Characterization - PHCs & BTEX.qgs Mar-02 13:30



BH21-8			
Sample ID:	SS2	DUP05	
Date Sampled:	26-Feb-21		
Sample Depth (mbgs):	0.8-1.4		
F4	µg/g	< 50	< 50
F1-F3 and BTEX	µg/g	Met T1 SCS	Met T1 SCS

BH21-3	
Sample ID:	SS2
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.8-1.4
F4	µg/g < 50
F1-F3 and BTEX	µg/g Met T1 SCS


BH21-9	
Sample ID:	SS5
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	3.0-3.6
F4	µg/g < 50
F1-F3 and BTEX	µg/g Met T1 SCS

MW/BH21B-1			
Sample ID:	SS3	SS4	
Date Sampled:	14-Jun-21	14-Jun-21	
Sample Depth (mbgs):	1.5-2.1	2.3-2.9	
F4	µg/g	< 50	< 50
F1-F3 and BTEX	µg/g	Met T1 SCS	Met T1 SCS

Parameter	Units	Table 1 SCS
F4	µg/g	120

*The F4 values at the undicated borehole was averaged as per the provision listed in S.48(2) of O.Reg 153/04. Indicating that the sample met the standard.

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards
 - Sample Exceeds Applicable Standards



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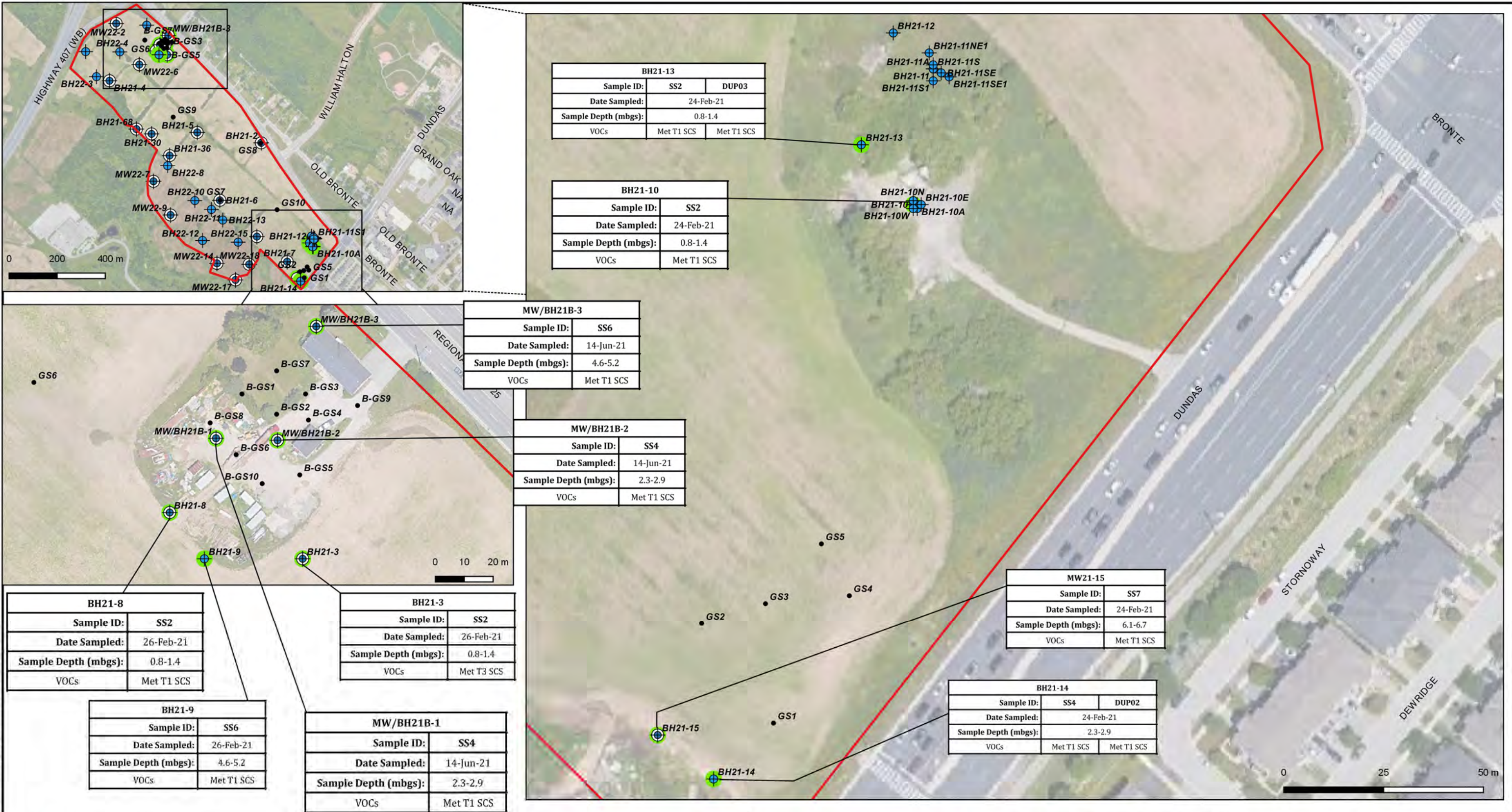
Title: **SOIL CHARACTERIZATION - PHCs & BTEX**

Client: PALERMO VILLAGE CORPORATION

Size: 11x17	Approved By: K.O.	Drawn By: P.P	Date: March 2023
Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 7C

Image/Map Source: Google Satellite Image

J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-CGIS\WEST PARCEL\Phase Two\Figure 7D - Soil Characterization - VOCs.gis Mar-02 13:27



BH21-13		
Sample ID:	SS2	DUP03
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	0.8-1.4	
VOCs	Met T1 SCS	Met T1 SCS

BH21-10	
Sample ID:	SS2
Date Sampled:	24-Feb-21
Sample Depth (mbgs):	0.8-1.4
VOCs	Met T1 SCS

MW/BH21B-3	
Sample ID:	SS6
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	4.6-5.2
VOCs	Met T1 SCS

MW/BH21B-2	
Sample ID:	SS4
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	2.3-2.9
VOCs	Met T1 SCS

MW21-15	
Sample ID:	SS7
Date Sampled:	24-Feb-21
Sample Depth (mbgs):	6.1-6.7
VOCs	Met T1 SCS

BH21-14		
Sample ID:	SS4	DUP02
Date Sampled:	24-Feb-21	
Sample Depth (mbgs):	2.3-2.9	
VOCs	Met T1 SCS	Met T1 SCS

BH21-8	
Sample ID:	SS2
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.8-1.4
VOCs	Met T1 SCS

BH21-3	
Sample ID:	SS2
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.8-1.4
VOCs	Met T3 SCS

BH21-9	
Sample ID:	SS6
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	4.6-5.2
VOCs	Met T1 SCS

MW/BH21B-1	
Sample ID:	SS4
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	2.3-2.9
VOCs	Met T1 SCS

Legend

- Site Boundary
- Hand Augered Sample Location
- Borehole Location
- Monitoring Well Location
- Sample Met Applicable Standards
- Sample Exceeds Applicable Standards



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Client: PALERMO VILLAGE CORPORATION

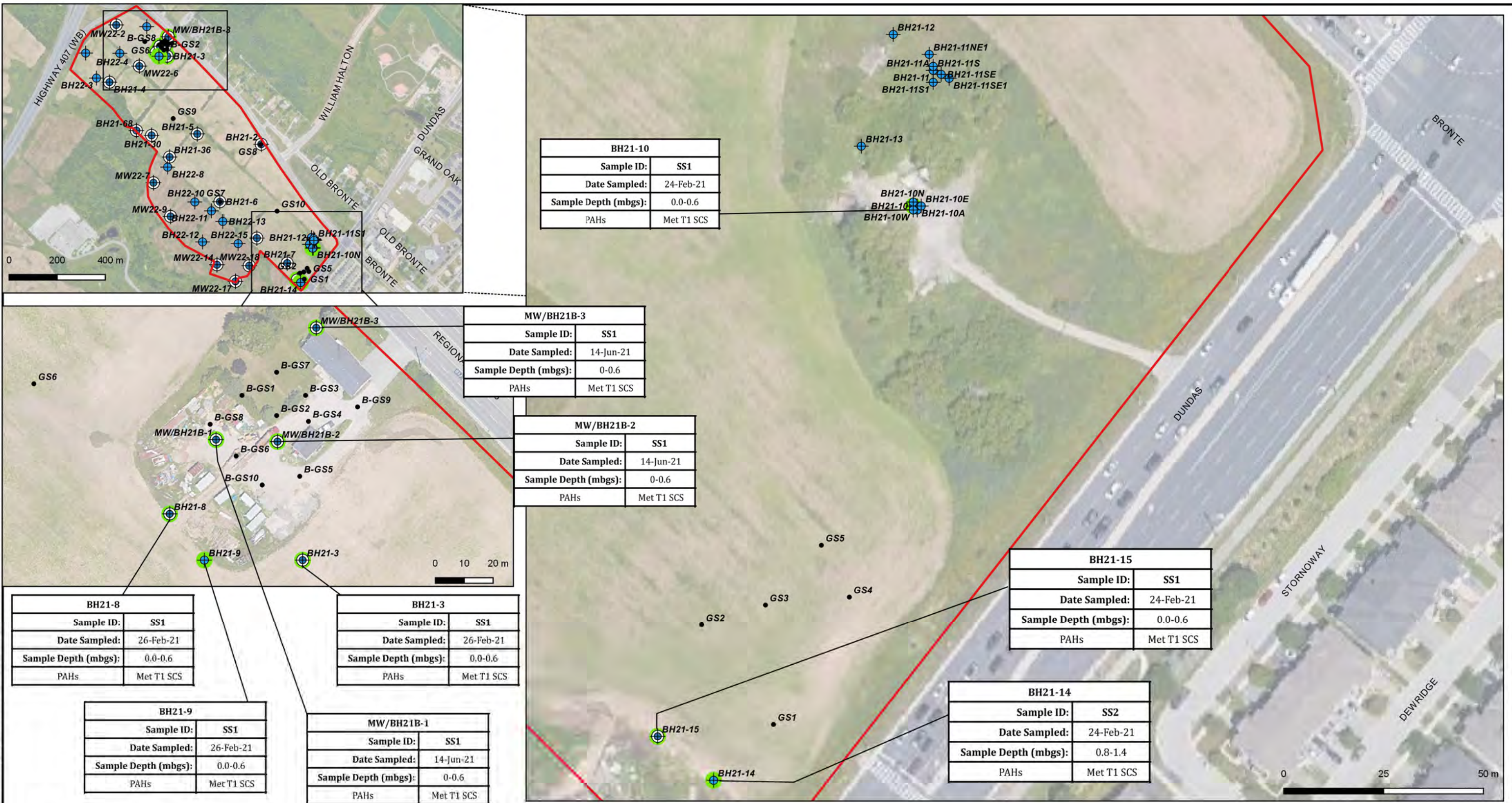
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5,
 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON

Title: **SOIL CHARACTERIZATION - VOCs**

Size:	11x17	Approved By:	K.O.	Drawn By:	P.P	Date:	March 2023
Rev:	0	Scale:	As Shown	Project No.:	19-323-100	Figure No.:	7D
Image/Map Source: Google Satellite Image							



J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-QGIS\WEST PARCEL\Phase Two\Figure 7E - Soil Characterization - PAHs.qgs Mar-02 15:00



BH21-10	
Sample ID:	SS1
Date Sampled:	24-Feb-21
Sample Depth (mbgs):	0.0-0.6
PAHs	Met T1 SCS

MW/BH21B-3	
Sample ID:	SS1
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	0-0.6
PAHs	Met T1 SCS

MW/BH21B-2	
Sample ID:	SS1
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	0-0.6
PAHs	Met T1 SCS

BH21-15	
Sample ID:	SS1
Date Sampled:	24-Feb-21
Sample Depth (mbgs):	0.0-0.6
PAHs	Met T1 SCS

BH21-14	
Sample ID:	SS2
Date Sampled:	24-Feb-21
Sample Depth (mbgs):	0.8-1.4
PAHs	Met T1 SCS



BH21-8	
Sample ID:	SS1
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.0-0.6
PAHs	Met T1 SCS

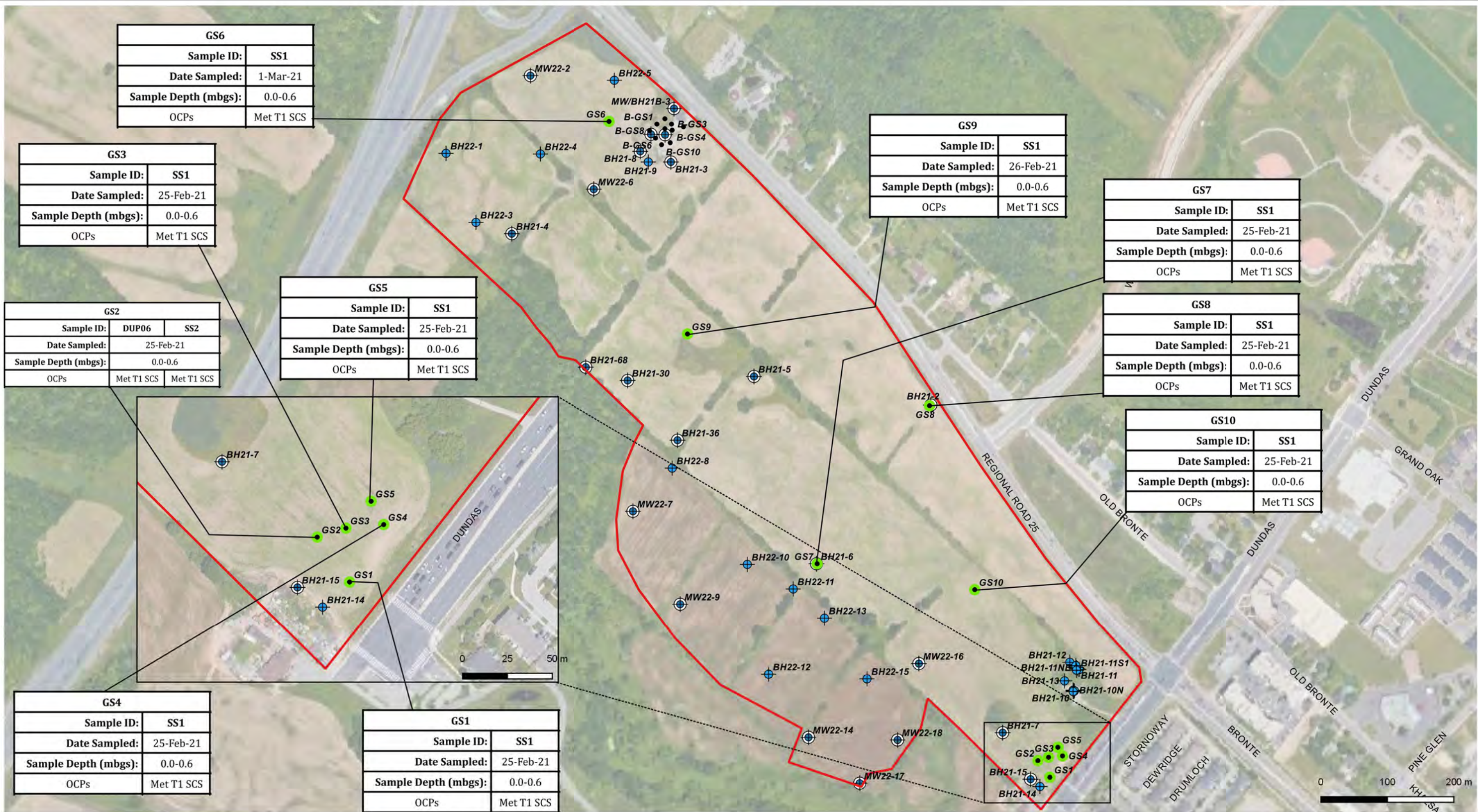
BH21-3	
Sample ID:	SS1
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.0-0.6
PAHs	Met T1 SCS

BH21-9	
Sample ID:	SS1
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.0-0.6
PAHs	Met T1 SCS

MW/BH21B-1	
Sample ID:	SS1
Date Sampled:	14-Jun-21
Sample Depth (mbgs):	0-0.6
PAHs	Met T1 SCS

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards

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	Title: SOIL CHARACTERIZATION - PAHs			
Client: PALERMO VILLAGE CORPORATION	Size: 11x17	Approved By: K.O.	Drawn By: P.P	Date: March 2023
Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 7E	Image/Map Source: Google Satellite Image



GS6	
Sample ID:	SS1
Date Sampled:	1-Mar-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS3	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS2		
Sample ID:	DUP06	SS2
Date Sampled:	25-Feb-21	
Sample Depth (mbgs):	0.0-0.6	
OCPs	Met T1 SCS	Met T1 SCS

GS5	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS4	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS1	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS9	
Sample ID:	SS1
Date Sampled:	26-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS7	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

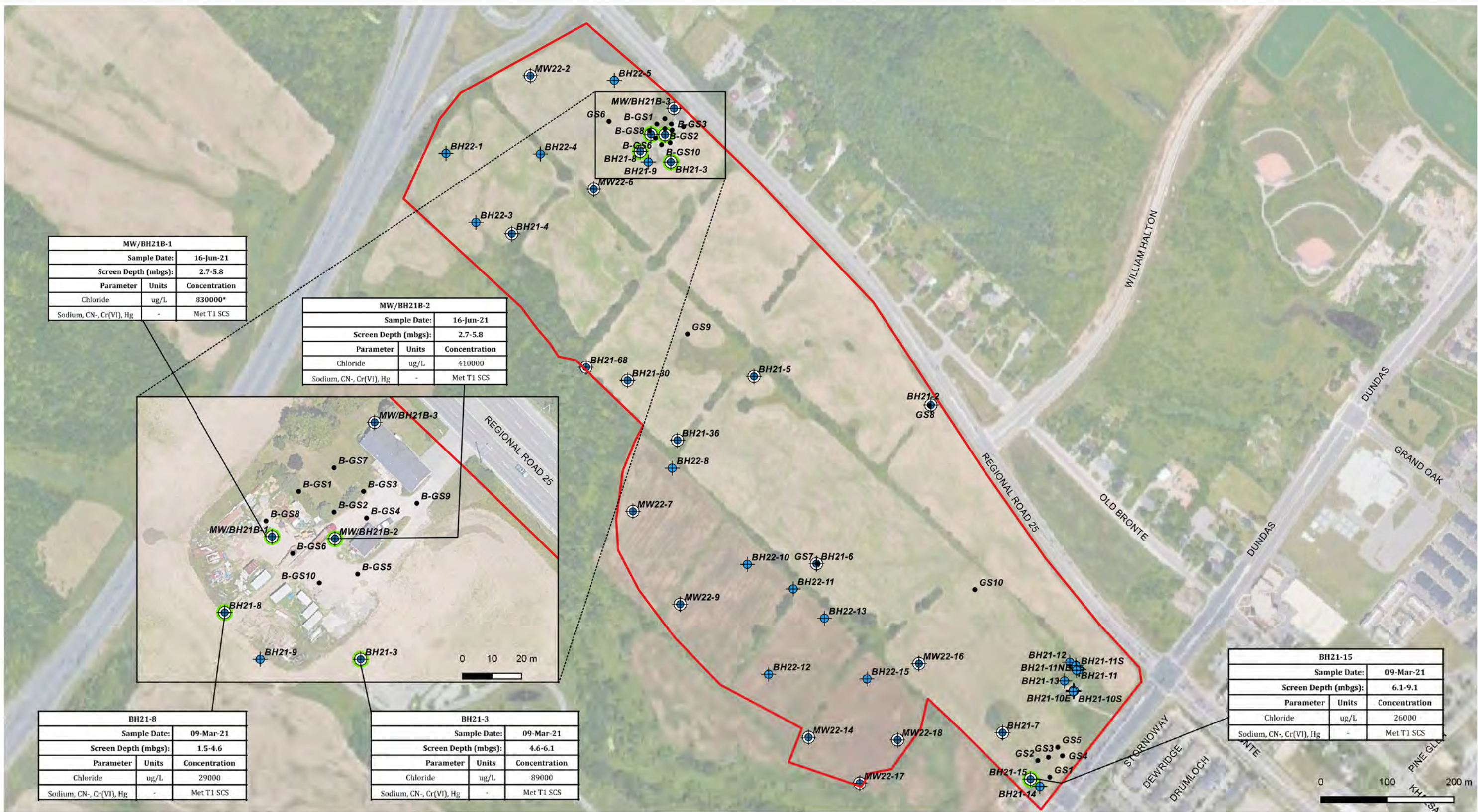
GS8	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

GS10	
Sample ID:	SS1
Date Sampled:	25-Feb-21
Sample Depth (mbgs):	0.0-0.6
OCPs	Met T1 SCS

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - + Borehole Location
 - ⊕ Monitoring Well Location
 - Sample Met Applicable Standards

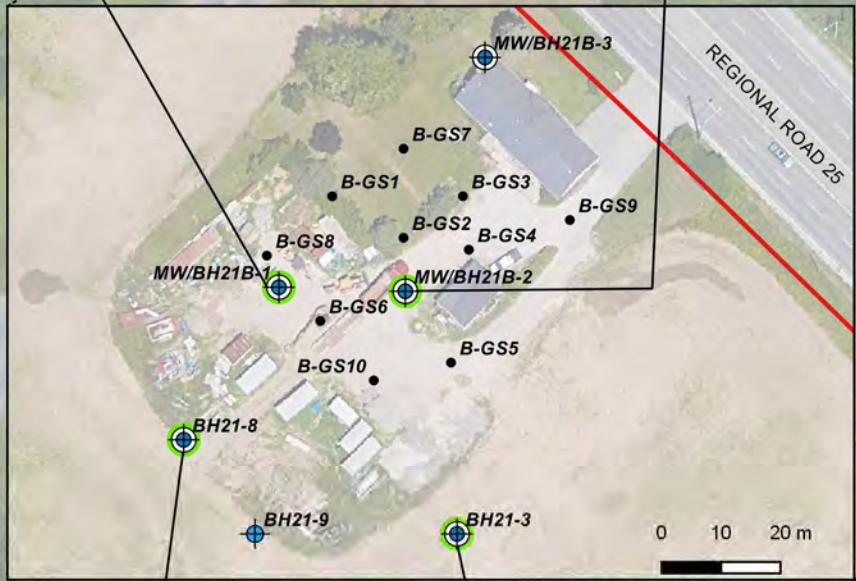
<p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON			
	Title: SOIL CHARACTERIZATION - OCPs			
Client:	Size:	Approved By:	Drawn By:	Date:
PALERMO VILLAGE CORPORATION	11x17	K.O.	P.P	March 2023
	Rev:	Scale:	Project No.:	Figure No.:
	0	As Shown	19-323-100	7F
Image/Map Source: Google Satellite Image				

J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-QGIS\WEST PARCEL\Phase Two\Figure 8B - Groundwater Characterization - ORPs.qgs Mar-02 15:07



MW/BH21B-1		
Sample Date:	16-Jun-21	
Screen Depth (mbgs):	2.7-5.8	
Parameter	Units	Concentration
Chloride	ug/L	830000*
Sodium, CN-, Cr(VI), Hg	-	Met T1 SCS

MW/BH21B-2		
Sample Date:	16-Jun-21	
Screen Depth (mbgs):	2.7-5.8	
Parameter	Units	Concentration
Chloride	ug/L	410000
Sodium, CN-, Cr(VI), Hg	-	Met T1 SCS



BH21-8		
Sample Date:	09-Mar-21	
Screen Depth (mbgs):	1.5-4.6	
Parameter	Units	Concentration
Chloride	ug/L	29000
Sodium, CN-, Cr(VI), Hg	-	Met T1 SCS

BH21-3		
Sample Date:	09-Mar-21	
Screen Depth (mbgs):	4.6-6.1	
Parameter	Units	Concentration
Chloride	ug/L	89000
Sodium, CN-, Cr(VI), Hg	-	Met T1 SCS

BH21-15		
Sample Date:	09-Mar-21	
Screen Depth (mbgs):	6.1-9.1	
Parameter	Units	Concentration
Chloride	ug/L	26000
Sodium, CN-, Cr(VI), Hg	-	Met T1 SCS

Parameter	Units	Table 1 SCS
Chloride	µg/L	490000

*Parameter deemed not exceeded under Section 49.1 (1) of O. Reg. 407/19

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - + Borehole Location
 - ⊕ Monitoring Well Location
 - Sample Met Applicable Standards

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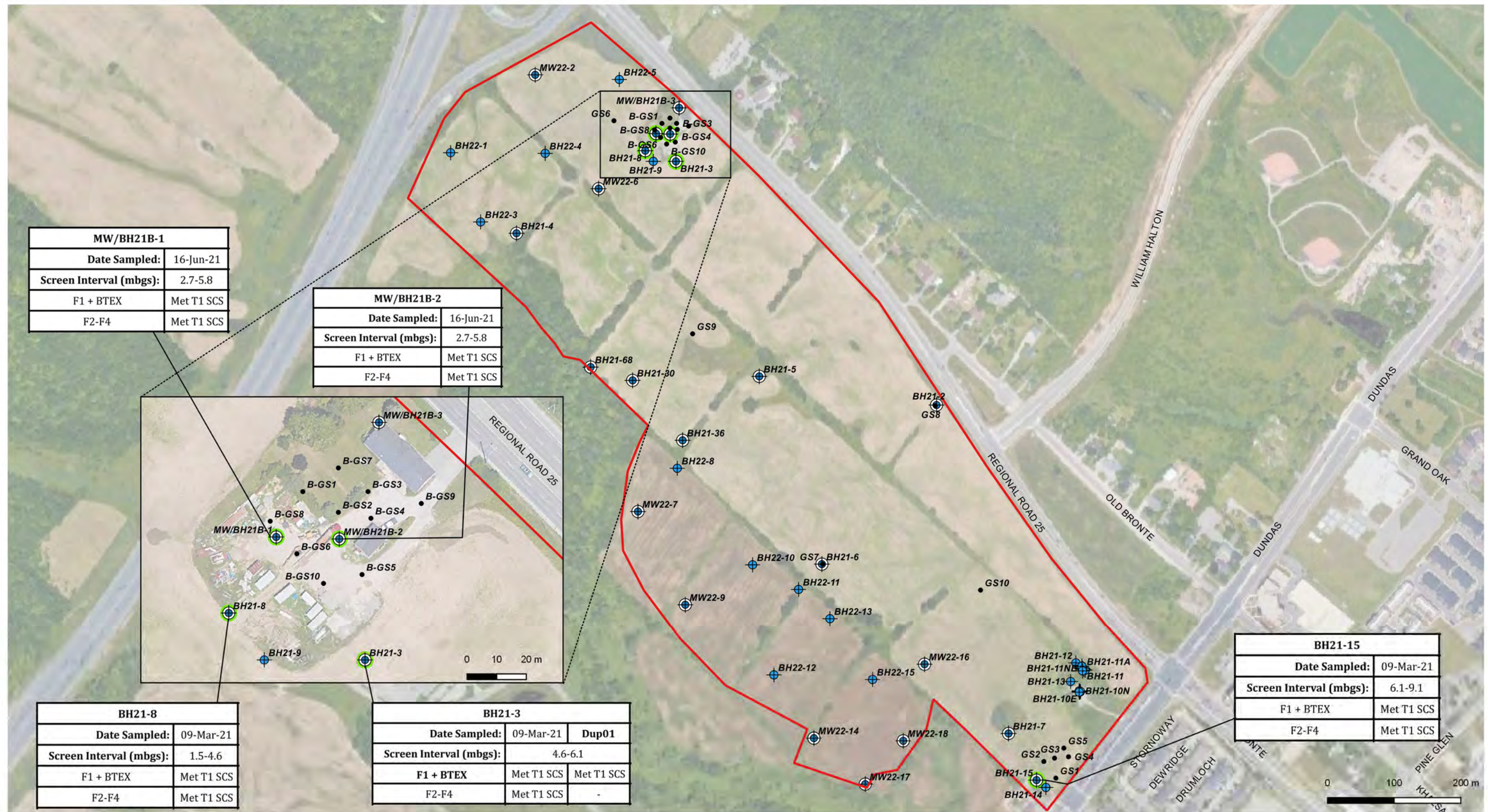
Client: PALERMO VILLAGE CORPORATION

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 Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5,
 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON

Title: **GROUNDWATER CHARACTERIZATION - ORPs**

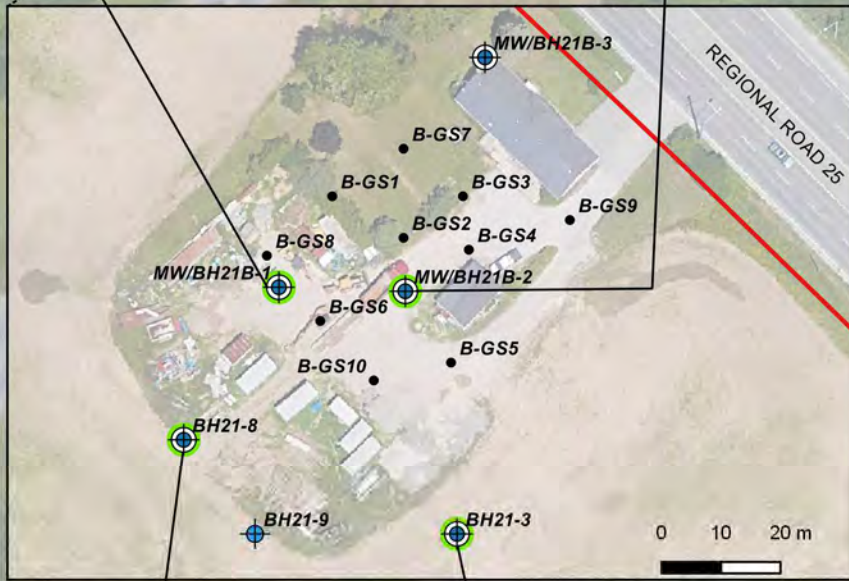
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Rev:	0	Scale:	As Shown	Project No.:	19-323-100	Figure No.:	8B
Image/Map Source: Google Satellite Image							





MW/BH21B-1	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
F1 + BTEX	Met T1 SCS
F2-F4	Met T1 SCS

MW/BH21B-2	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
F1 + BTEX	Met T1 SCS
F2-F4	Met T1 SCS



BH21-8	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	1.5-4.6
F1 + BTEX	Met T1 SCS
F2-F4	Met T1 SCS

BH21-3		
Date Sampled:	09-Mar-21	Dup01
Screen Interval (mbgs):	4.6-6.1	
F1 + BTEX	Met T1 SCS	Met T1 SCS
F2-F4	Met T1 SCS	-

BH21-15	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	6.1-9.1
F1 + BTEX	Met T1 SCS
F2-F4	Met T1 SCS

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards

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Client: PALERMO VILLAGE CORPORATION

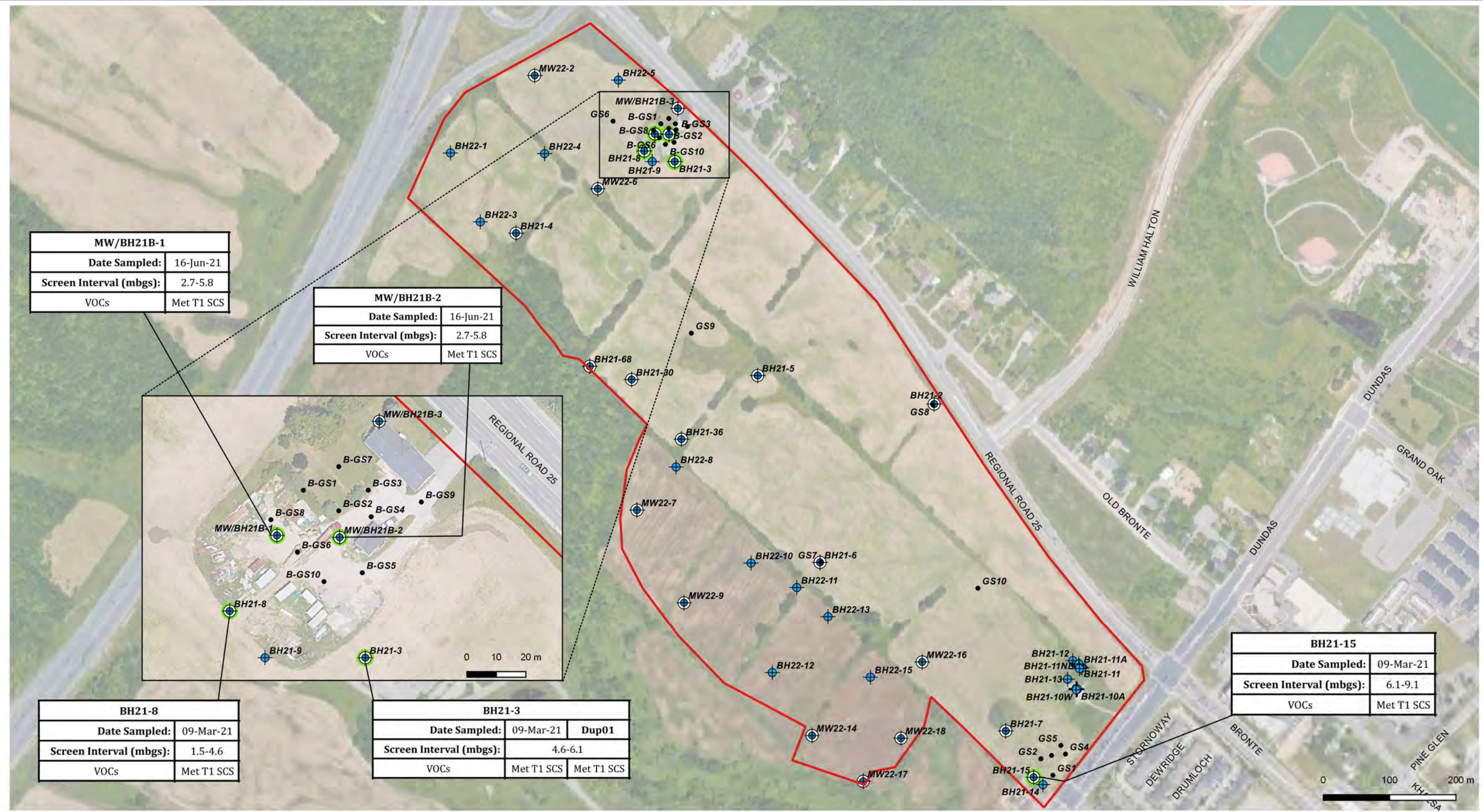
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON

Title: **GROUNDWATER CHARACTERIZATION - PHCs & BTEX**

Size:	Approved By:	K.O.	Drawn By:	P.P	Date:	March 2023
11x17	Scale:	As Shown	Project No.:	19-323-100	Figure No.:	8C
Rev:	Image/Map Source: Google Satellite Image					
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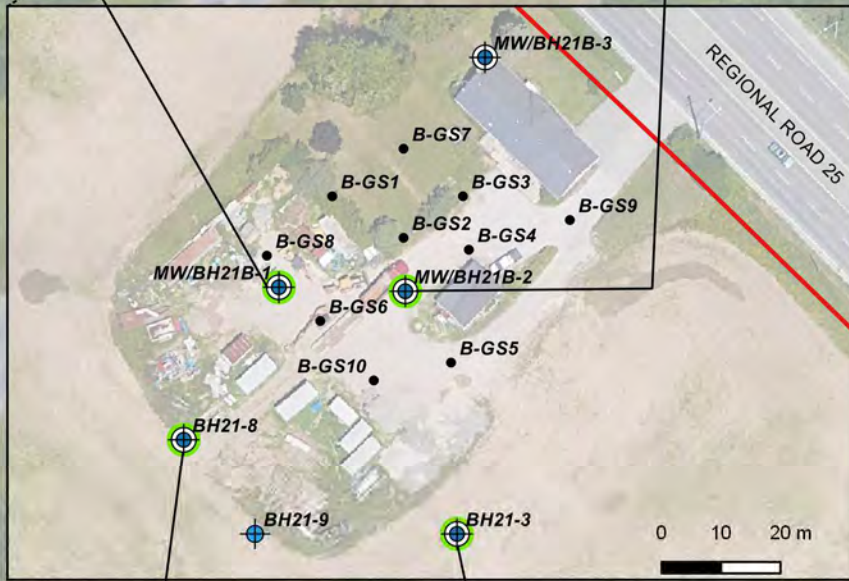


J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-QGIS\WEST PARCEL\Phase Two\Figure 8D - Groundwater Characterization - VOCs.qgs Mar-02 14:55



MW/BH21B-1	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
VOCs	Met T1 SCS

MW/BH21B-2	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
VOCs	Met T1 SCS



BH21-8	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	1.5-4.6
VOCs	Met T1 SCS

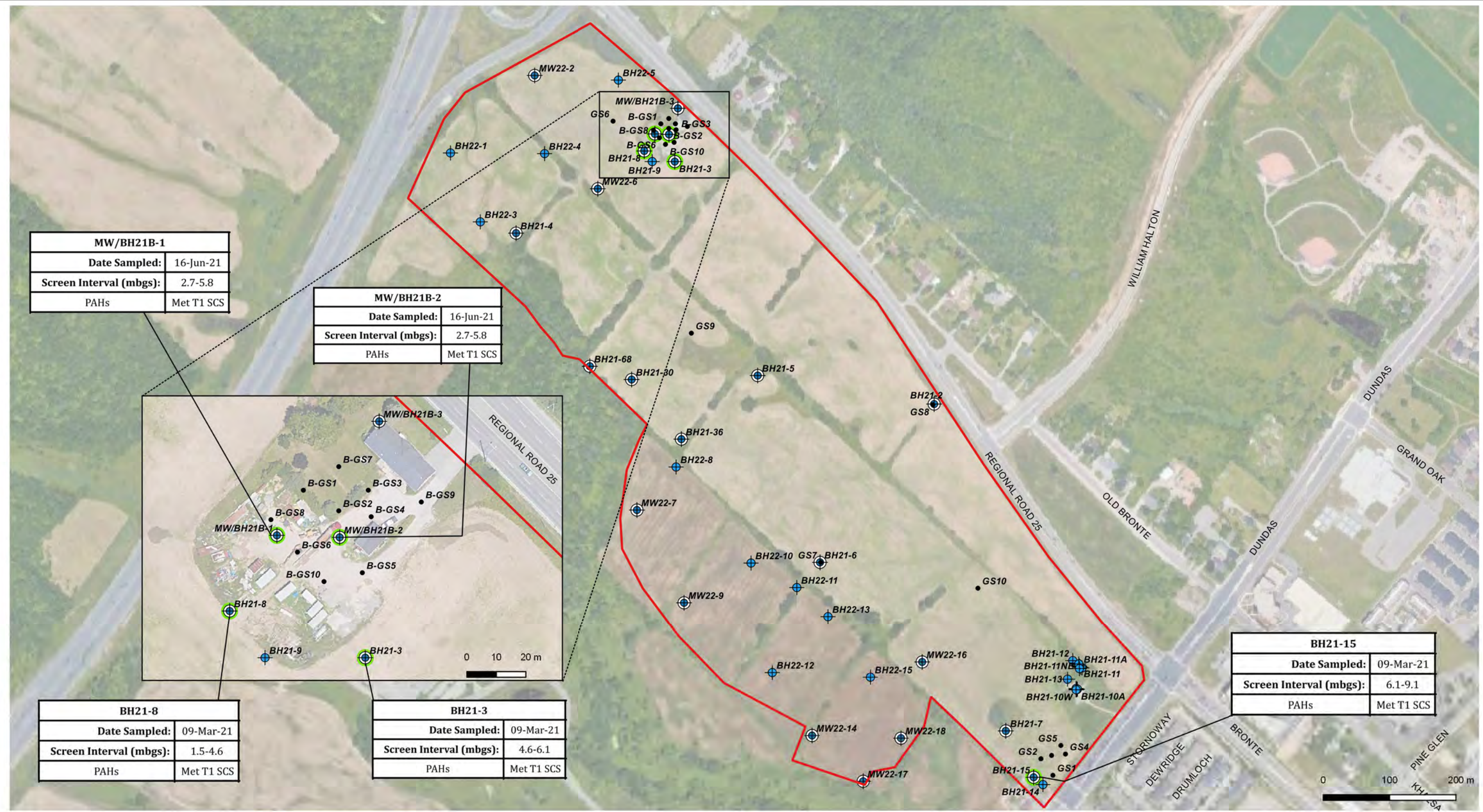
BH21-3		
Date Sampled:	09-Mar-21	Dup01
Screen Interval (mbgs):	4.6-6.1	
VOCs	Met T1 SCS	Met T1 SCS

BH21-15	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	6.1-9.1
VOCs	Met T1 SCS

- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards

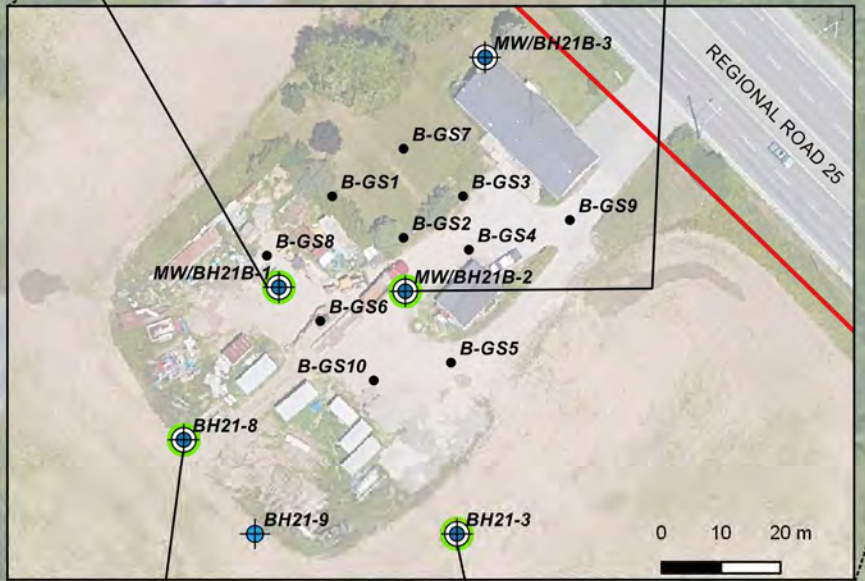
<p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of Lot 31, Concession 1, Trafalgar NDS, S and E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON						
	GROUNDWATER CHARACTERIZATION - VOCs						
Client:	PALERMO VILLAGE CORPORATION						
Size:	11x17	Approved By:	K.O.	Drawn By:	p.p	Date:	March 2023
Rev:	0	Scale:	As Shown	Project No.:	19-323-100	Figure No.:	8D
Image/Map Source: Google Satellite Image							

J:\GIS\2019 PROJECTS\19-323-100 Newmark Property\1-QGIS\WEST PARCEL\Phase Two\Figure 8E - Groundwater Characterization - PAHs.qgs Mar-02 14:57



MW/BH21B-1	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
PAHs	Met T1 SCS

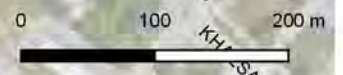
MW/BH21B-2	
Date Sampled:	16-Jun-21
Screen Interval (mbgs):	2.7-5.8
PAHs	Met T1 SCS



BH21-8	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	1.5-4.6
PAHs	Met T1 SCS

BH21-3	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	4.6-6.1
PAHs	Met T1 SCS

BH21-15	
Date Sampled:	09-Mar-21
Screen Interval (mbgs):	6.1-9.1
PAHs	Met T1 SCS



- Legend**
- Site Boundary
 - Hand Augered Sample Location
 - Borehole Location
 - Monitoring Well Location
 - Sample Met Applicable Standards

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	Title: GROUNDWATER CHARACTERIZATION - PAHs			
Client: PALERMO VILLAGE CORPORATION	Size: 11x17	Approved By: K.O.	Drawn By: P.P.	Date: March 2023
Rev: 0	Scale: As Shown	Project No.: 19-323-100	Figure No.: 8E	Image/Map Source: Google Satellite Image



Tables



Table 1: Summary of Monitoring Well Installation and Groundwater Data

Well ID	BH21-2	BH21-3	BH21-4	BH21-5	BH21-6	BH21-7	BH21-8	BH21-15	BH21-30	BH21-36	BH21-68	MW/BH21B-1	MW/BH21B-2	MW/BH21B-3	MW22-2	MW22-6	MW22-7	MW22-9	MW22-14	MW22-16	MW22-17	MW22-18	
Installed By:	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS
Installation Date:	26-Feb-21	26-Feb-21	01-Mar-21	01-Mar-21	25-Feb-21	25-Feb-21	26-Feb-21	24-Feb-21	05-Apr-21	05-Apr-21	05-Apr-21	14-Jun-21	14-Jun-21	14-Jun-21	25-Mar-22	25-Mar-22	24-Mar-22	24-Mar-22	21-Mar-22	21-Mar-22	21-Mar-22	21-Mar-22	21-Mar-22
Well Status:	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active	Active
EastUTM17	598588.9	598197.6	597957.7	598322.5	598413.3	598696.7	598151.6	598738.3	598132.3	598207.4	598069.3	598167	598188.2	598211.6	597985.6	598081.9	598140.2	598211.74	598404.2	598570.7	598481.2	598583.6	598583.6
NorthUTM17	4810217.2	4810583.9	4810475.2	4810260.0	4809978.2	4809723.5	4810599.5	4809653.5	4810254.9	4810164.7	4810274.9	4810624.60	4810623.70	481066.08	4810713.60	4810542.10	4810057.50	4809917.80	48099716.20	4809827.20	4809647.10	4809712.80	4809712.80
Inner Diameter	(mm)	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
Surface Elevation	(masl)	157.20	164.79	162.00	159.50	156.70	152.60	164.28	152.45	160.50	160.00	161.10	164.29	164.57	165.38	165.60	163.00	157.60	156.10	153.90	152.40	152.40	153.00
Bottom of Concrete Seal/Top of Bentonite Seal	mbgs	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30	0.30
	masl	156.90	164.49	161.70	159.20	156.40	152.30	163.98	152.15	160.20	159.70	160.80	163.99	164.27	165.08	165.30	162.70	157.30	155.80	153.60	152.10	152.10	152.70
Bottom of Bentonite Seal/Top of Sand Pack	mbgs	4.00	4.00	2.80	2.50	6.10	1.00	0.60	5.50	5.60	5.20	3.10	2.10	2.10	2.10	2.50	2.40	5.40	5.40	5.40	5.40	11.60	2.40
	masl	153.20	160.79	159.20	157.00	150.60	151.60	163.68	146.95	154.90	154.80	158.00	162.19	162.47	163.28	163.10	160.60	152.20	150.70	148.50	147.00	140.80	150.60
Top of Well Screen	mbgs	4.60	4.60	3.40	3.10	6.70	1.20	1.50	6.10	6.20	5.70	3.70	2.70	2.70	3.10	3.00	6.00	6.00	6.00	6.00	12.20	3.00	3.00
	masl	152.60	160.19	158.60	156.40	150.00	151.40	162.78	146.35	154.30	154.30	157.40	161.59	161.87	162.68	162.50	160.00	151.60	150.10	147.90	146.40	140.20	150.00
Well Screen Length	m	1.50	1.50	1.50	1.50	1.50	1.50	3.10	3.10	1.50	1.50	1.50	3.10	3.10	3.10	1.50	1.50	3.10	3.10	3.10	3.10	3.10	3.10
Bottom of Well Screen	mbgs	6.10	6.10	4.90	4.60	8.20	2.70	4.60	9.10	7.70	7.20	5.20	5.80	5.80	5.80	4.60	4.50	9.10	9.10	9.10	9.10	15.30	6.10
	masl	151.10	158.69	157.10	154.90	148.50	149.90	159.68	143.35	152.80	152.80	155.90	158.49	158.77	159.58	161.00	158.50	148.50	147.00	144.80	143.30	137.10	146.90
GW Monitoring																							
01-Mar-21	Depth to GW	mbgs	4.6	5.45	3.40	3.10	6.70	1.20	4.27	7.15	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	
	GW Elevation	masl	152.60	159.34	158.60	156.40	150.00	151.40	160.01	145.30	NM	NM	NM	NM	157.14	NM	NM	NM	NM	NM	NM	NM	
09-Mar-21	Depth to GW	mbgs	NM	4.24	NM	NM	NM	NM	3.11	4.44	NM	NM	NM	4.44	NM	NM	NM	NM	NM	NM	NM	NM	
	GW Elevation	masl	NM	160.55	NM	NM	NM	NM	161.17	148.01	NM	NM	NM	159.85	NM	NM	NM	NM	NM	NM	NM	NM	
30-Mar-21	Depth to GW	mbgs	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	3.96	0.26	5.28	8.08	7.3	Dry	Dry	
	GW Elevation	masl	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	161.64	162.74	152.32	-	145.82	145.10	-	
14-Apr-21	Depth to GW	mbgs	NM	NM	NM	NM	NM	NM	NM	2.29	2.37	5.17	2.41	5.31	NM	NM	NM	NM	NM	NM	NM	NM	
	GW Elevation	masl	NM	NM	NM	NM	NM	NM	NM	158.21	157.63	155.93	161.88	159.26	NM	NM	NM	NM	NM	NM	NM	NM	
24-Jan-23	Depth to GW	mbgs	2.62	4.39	Broken	3.57	Broken	1.89	3.62	5.61	NM	NM	NM	Artesian	NM	Dry	1.01	2.52	6.64	4.54	4.86	7.88	
	GW Elevation	masl	154.28	160.10	-	155.63	-	150.41	160.36	146.54	NM	NM	NM	-	NM	-	164.29	160.18	150.66	151.26	148.74	144.22	

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
BH21-3	SS1	0.0-0.6	Clayey Silt	Metals and ORPs, PAHs	Soil Characterization
	SS2	0.8-1.4	Clayey Silt	PHCs + BTEX	
	SS3	3.0-3.7	Clayey Silt Till	VOCs, pH	
BH21-8	SS1	0.0-0.6	Clayey Silt	Metals and ORPs, PAHs	APEC-3A, 3B
	SS2	0.8-1.4	Clayey Silt Till	PHCs+BTEX, VOCs	
	DUP05			PHCs + BTEX	
BH21-9	SS1	0.0-0.6	Clayey Silt	PAHs	APEC-3A, 3B
	SS2	0.8-1.4	Clayey Silt Till	Metals and ORPs	
	SS5	3.0-3.6	Clayey Silt Till	PHCs + BTEX	
	SS6	4.6-5.2	Clayey Silt Till	VOCs	
BH21-10	SS1	0.0-0.6	Fill-Sandy Silt	Metals and ORPs, PAHs	APEC-4A,B,C,D
	SS2	0.8-1.4	Clayey Silt Till	PHCs,VOCs	
	SS3	3.0-3.7	Clayey Silt Till	pH	
BH21-10A	SS2	0.8-1.4	Clayey Silt Till	PHCs	APEC-4A,B,C,D
	Dup-02				
BH21-11	SS1	0.0-0.6	Fill-Clay and Sand	Metals and ORPs	APEC-4A,B,C,D
BH21-11A	SS1	0.0-0.6	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
	Dup-01				
	SS2	0.8-1.4	Clayey Silt Till	Metals	APEC-4A,B,C,D
BH21-11NE	SS1	0.0-0.6	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
BH21-11S	SS1	0.0-0.6	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
BH21-11S1	SS1	0.0-0.6	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
BH21-11SE	SS1	0.0-0.6	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
BH21-11SE1	SS1	0.0-0.7	Fill-Clay and Sand	Metals	APEC-4A,B,C,D
BH21-12	SS1	0.0-0.6	Clayey Silt Till	Metals and ORPs	APEC-4A,B,C,D
	SS2	0.8-1.4	Clayey Silt Till	PHCs + BTEX	
	DUP04			PHCs + BTEX	
BH21-13	SS1	0.0-0.6	Fill-Sandy Silt	Metals and ORPs	APEC-4A,B,C,D
	SS2	0.8-1.4	Clayey Silt Till	VOCs	
	DUP03			VOCs	
BH21-14	SS1	0.0-0.6	Clayey Silt Till	Metals and ORPs	APEC-2, 5
	SS2	0.8-1.4	Clayey Silt Till	PAHs	APEC-5
	SS3	1.5-2.1	Clayey Silt Till	PHCs+BTEX	
	DUP01			PHCs+BTEX	
	SS4	2.3-2.9	Clayey Silt Till	VOCs	
	DUP02			VOCs	
BH21-15	SS1	0.0-0.6	Clayey Silt Till	Metals and ORPs, PAHs	APEC-2,5
	SS3	1.5-2.1	Clayey Silt Till	pH	-
	SS7	6.1-6.7	Clayey Silt Till/Silty Clay Till	PHCs+BTEX, VOCs	APEC-5
GS1	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2
GS2	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2
	DUP06			Metals, OCPs	APEC-2
GS3	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2
GS4	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2
GS5	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2
GS6	SS1	0.0-0.6	Clayey Silt	Metals, OCPs	APEC-2
GS7	SS1	0.0-0.6	Clayey Silt	Metals, OCPs	APEC-2
GS8	SS1	0.0-0.6	Silty Clat to Clayey Silt	Metals, OCPs	APEC-2
GS9	SS1	0.0-0.6	Clayey Silt	Metals, OCPs	APEC-2
GS10	SS1	0.0-0.6	Clayey Silt Till	Metals, OCPs	APEC-2

**Table 2: Summary of Soil Samples Submitted for Chemical Analysis**

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
MW/BH21B-1	SS1	0-0.6	Fill: sand and gravel	Metals and ORPs	APEC-3,6,7
	SS2	0.8-1.4	Clayey silt, some gravel, trace sand	Metals and ORPs	Soil Characterization
	SS3	1.5-2.1	Clayey silt, some gravel, trace sand	PHCs	APEC-3,6,7
	SS4	2.3-2.9	Clayey silt till	VOCs	APEC-3,6,7
	SDUPB1	2.3-2.9			APEC-3,6,7
MW/BH21B-2	SS1	0-0.6	Fill: sand and gravel	Metals and ORPs	APEC-3,6,7
	SS2	0.8-1.4	Clayey silt, some gravel	Metals and ORPs	Soil Characterization
	SS3	1.5-2.1	Clayey silt, some gravel	PHCs	APEC-1A, 1B, 1E, 1D, 3, 6, 7
	SS4	2.3-2.9	Clayey silt till	VOCs	APEC-1A, 1B, 1E, 1D, 3, 6, 7
	SDUPB2	2.3-2.9			APEC-1A, 1B, 1E, 1D, 3, 6, 7
MW/BH21B-3	SS1	0-0.6	Fill: sand and gravel	Metals and ORPs, PAHs	APEC-1C
	SS6	4.6-5.2	Weathered shale	PHCs, VOCs	APEC-1C
B-GS1	B-GS1	0-0.6	Topsoil and Silty Clay	Metals and ORPs	Soil Characterization
B-GS2	B-GS2	0-0.6	Topsoil and Silty Clay, some gravel and fill	Metals and ORPs	Soil Characterization
B-GS3	B-GS3	0-0.6	Fill: Gravel, silty sand	Metals and ORPs	Soil Characterization
B-GS4	B-GS4	0-0.6	Fill: Gravel, silty sand	Metals and ORPs	Soil Characterization
B-GS5	B-GS5	0-0.6	Fill: Gravel, silty sand	Metals and ORPs	Soil Characterization
B-GS6	B-GS6	0-0.6	Fill: Gravel, silty sand	Metals and ORPs	Soil Characterization
B-GS7	B-GS7	0-0.6	Topsoil, silty clay	Metals and ORPs	Soil Characterization
	DUP-0630	0-0.6	Topsoil, silty clay	Metals and ORPs	Soil Characterization
B-GS8	B-GS8	0-0.6	Fill: gravel, some sand	Metals and ORPs	Soil Characterization
B-GS9	B-GS9	0-0.6	Fill: Gravel, some sand	Metals and ORPs	Soil Characterization
B-GS10	B-GS10	0-0.6	Fill: Gravel, some brick pieces, sand	Metals and ORPs	Soil Characterization

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

**Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis**

Well ID	Well Screen Interval (masl)		Sample Date	Parameter Analyzed	APEC Investigated	
MW21-3	158.69	-	160.19	9-Mar-21	APEC-1A, 1B	
				Dup-01		VOCs, PHCs-F1
				6-Apr-21	Metals	APEC-1A, 1B
				Dup-02	Metals	
MW21-8	159.68	-	162.78	10-Mar-21	Metals and ORPs, PHCs, VOCs, PAHs	APEC-1A, 1B, 3
MW21-15	143.35	-	146.35	11-Mar-21	Metals and ORPs, PHCs, VOCs, PAHs	APEC-5
MW/BH21B-1	158.49	-	161.49	16-Jun-21	Metals and ORPs, PHCs, VOCs and PAHs	APEC-3,6,7
MW/BH21B-2	158.77	-	161.87	16-Jun-21	Metals and ORPs, PHCs, VOCs and PAHs	APEC-1A, 1B, 1E, 1D, 3, 6, 7

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

**Table 4: Summary of APECs Investigated**

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1A	A 680 L heating fuel oil AST (AST 2) was observed along the exterior wall of Site Building F, located at 3278 Regional Road 25.	PHCs, BTEX, VOCs, PAHs	Soil	BH21-3	SS2	PHCs + BTEX
					SS3	VOCs
				BH21-8	SS2	PHCs+BTEX, VOCs
					DUP05	PHCs + BTEX
				BH21-9	SS5	PHCs + BTEX
					SS6	VOCs
				MW/BH21B-2	SS3	PAHs
					SS4	PHCs, BTEX
				MW/BH21B-2	SS3	PAHs
					SS4	PHCs, BTEX
APEC-1B	A 4500 L cylindrical steel encased AST (AST 3) was observed along the west side of Site Building F and is used for bulk storage of heating fuel oil for AST 1 and AST 2 at 3278 Regional Road 25.	PHCs, BTEX, VOCs, PAHs	Groundwater	MW21-3	9-Mar-21	PHCs+BTEX, VOCs,
					Dup-01	VOCs, PHCs-F1
					6-Apr-21	Metals
					Dup-02	Metals
				MW21-8	9-Mar-21	PHCs+BTEX, VOCs,
				MW/BH21B-2	MW21B-2	PHCs, PAHs, BTEX, VOCs
APEC-1C	A 900 L heating fuel oil AST (AST 1) was observed in the basement of Site Building E at 3278 Regional Road 25.	PHCs, BTEX, PAHs	Soil	MW/BH21B-3	SS1	PAHs
			Groundwater		MW/BH21B-3	MW21B-3
APEC-1D	One (1) dyed diesel AST (AST 4) was observed on 3278 Regional Road 25 for vehicle re-fueling purposes on-Site.	PHCs, BTEX, PAHs	Soil	MW/BH21B-2	SS3	PAHs
					SS4	PHCs, BTEX
			Groundwater	MW/BH21B-2	MW21B-2	PAHs, PHCs, BTEX
APEC-1E	One (1) clear diesel AST (AST 5) was observed adjacent to the dyed diesel AST (AST 4) and was used for re-fueling purposes.	PHCs, BTEX, PAHs	Soil	MW/BH21B-2	SS3	PAHs
					SS4	PHCs, BTEX
			Groundwater	MW/BH21B-2	MW21B-2	PAHs, PHCs, BTEX
APEC-2	An orchard formally operated at the southwestern corner of Parcel 1 at the Phase One Property.	OCPs, Metals, As, Sb, Se, CN-	Soil	BH21-14	SS1	Metals
				BH21-15	SS1	Metals
				GS1	SS1	Metals, OCPs
					SS1	Metals, OCPs
				GS2	DUP06	Metals, OCPs
					SS1	Metals, OCPs
				GS3	SS1	Metals, OCPs
				GS4	SS1	Metals, OCPs
				GS5	SS1	Metals, OCPs
				GS6	SS1	Metals, OCPs
				GS7	SS1	Metals, OCPs
GS8	SS1	Metals, OCPs				
GS9	SS1	Metals, OCPs				
GS10	SS1	Metals, OCPs				



Table 4: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-3	Miscellaneous construction debris and material has been stored in the western portion of 3278 Regional Road 25.	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg, low or high pH, SAR	Soil	BH21-8	SS1	Metals and ORPs, PAHs
					SS2	PHCs+BTEX, VOCs
					DUP05	PHCs + BTEX
				BH21-9	SS1	PAHs
					SS2	Metals and ORPs
					SS5	PHCs + BTEX
					SS6	VOCs
				MW/BH21B-1	SS1	Metals and ORPs
					SS3	PAHs
					SS4	PHCs, VOCs
				SDUPB1		
				MW/BH21B-2	SS1	Metals and ORPs
			SS3		PAHs	
SS4	PHCs, VOCs					
SDUPB2						
Groundwater	MW21-8	9-Mar-21	Metals and ORPs, PHCa, VOCs, PAHs			
	MW/BH21B-1	MW21B-1	Metals and ORPs, PHCs, VOCs, PAHs			
		DUP-1	PHCs			
MW/BH21B-2	MW21B-2	Metals and ORPs, PHCs, VOCs, PAHs				
APEC-4A	A soil stockpile of unknown origin was located on the Phase One Property, south adjacent to the 3278 Regional Road 25.	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg, low or high pH, SAR	Soil	BH21-10	SS1	Metals and ORPs, PAHs
APEC-4B	Former Building D has been demolished; fill material may have been used to infill the area it formerly occupied.				SS2	PHCs,VOCs
					SS3	pH
				BH21-10A	SS2	PHCs
					Dup-02	PHCs
APEC-4C	Stockpiles of brick, soil and construction debris were observed to the south of the former extent of Site Building A and west adjacent to Site Building B.			BH21-11A	SS1	Metals and ORPs
					Dup-01	Metals
					SS2	Metals
APEC-4D	Site Building A historically encompassed a larger footprint, it is inferred that fill material may have been utilized for grading purposes when the structure was demolished in the mid 1990s. Additionally, at the time of the Site Visit, the remaining interior of Site Building A was filled with miscellaneous construction debris (lumber, brick) and general refuse.			BH21-11NE	SS1	Metals
					BH21-11S	Metals
					BH21-11S1	Metals
					BH21-11SE	Metals
					BH21-11SE1	Metals
		APEC-4E	Former Building C has been demolished; fill material may have been used to infill the area it formerly occupied.		BH21-12	SS1
SS2	PHCs + BTEX					
DUP04	PHCs + BTEX					
BH21-13	SS1	Metals and ORPs				
	SS2	VOCs				
	DUP03	VOCs				



Table 4: Summary of APECs Investigated

APEC	Description	PCOCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed	
APEC-5	Yard waste, various trucks, and trailers, two (2) parked boats, and miscellaneous rubbish such as dis-used old cars, trailers, tires and containers were observed at the southwest corner of the Phase One Property.	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg, low or high pH, SAR	Soil	BH21-14	SS1	Metals and ORPs	
					SS2	PAHs	
					SS3	PHCs+BTEX	
					DUP01	PHCs+BTEX	
					SS4	VOCs	
					DUP02	VOCs	
			Groundwater	MW21-15	9-Mar-21	SS1	Metals and ORPs, PAHs
						SS3	pH
SS7	PHCs+BTEX, VOCs						
APEC-6	3278 Regional Road 25 was listed in ERIS for the generation of waste oils and lubricants, associated with the use of the address as a small excavation business.	PHCs, BTEX	Soil	MW/BH21B-1	SS4	PHCs, BTEX	
					SDUPB1		
				MW/BH21B-2	SS4	PHCs, BTEX	
					SDUPB2		
			Groundwater	MW/BH21B-1	MW21B-1	PHCs, BTEX	
					DUP-1	PHCs	
			Groundwater	MW/BH21B-2	MW21B-2	PHCs, BTEX	
APEC-7	Within the vicinity of Site Building F and the western portion of 3278 Regional Road 25, associated with the vehicle maintenance activities that occurred.	PHCs, VOCs, BTEX, PAHs	Soil	MW/BH21B-1	SS3	PAHs	
					SDUPB1	SS4	PHCs, VOCs
						SS3	
				Groundwater	MW/BH21B-2	SS4	PHCs, VOCs
						SDUPB2	
						MW21B-1	
			Groundwater	MW/BH21B-2	DUP-1	PHCs	
					MW21B-2	PHCs, VOCs, PAHs	

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



Table 5: Summary of Metals and ORPs in Soil

Parameter		BH21-3/SS1	BH21-3/SS3	BH21-8/SS1	BH21-9/SS2	BH21-10/SS1	BH21-10/SS3	BH21-11/SS1	BH21-11/SS1	BH21-11/SS2	BH21-11A/SS1	Dup01 (BH21-11A/SS1)
Date of Collection	MECP Table 1 SCS	26-Feb-21	26-Feb-21	26-Feb-21	26-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	6-Apr-21	6-Apr-21	6-Apr-21
Date Reported		09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	15-Mar-21	24-Mar-21	13-Apr-21	13-Apr-21
Sampling Depth (mbgs)		0.0-0.6	1.5-2.1	0.0-0.6	0.8-1.4	0.0-0.6	1.5-2.1	0.0-0.6	0.0-0.6	0.8-1.4	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14381-MAR21	CA15971-MAR21	CA14124-APR21	CA14124-APR21
Antimony	1.3	< 0.8	-	< 0.8	< 0.8	< 0.8	-	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	4	-	5	4	4	-	5.1	6.5	4.5	5.2	4.2
Barium	220	91	-	93	81	54	-	120	180	99	110	86
Beryllium	2.5	0.72	-	0.85	0.58	0.41	-	0.65	0.52	0.56	0.6	0.49
Boron (total)	36	6	-	8	8	7	-	8	7	7	10	8
Boron (Hot Water Soluble)	NA	< 0.5	-	< 0.5	< 0.5	< 0.5	-	< 0.5	-	-	-	-
Cadmium	1.2	0.17	-	0.13	0.1	0.3	-	0.29	0.39	0.11	0.23	0.1
Chromium Total	70	21	-	24	18	14	-	20	18	19	20	17
Chromium VI	0.66	0.6	-	< 0.2	< 0.2	< 0.2	-	< 0.2	-	-	-	-
Cobalt	21	11	-	13	12	6.5	-	12	9.4	12	12	11
Copper	92	24	-	31	26	21	-	58	120	27	36	24
Cyanide (CN ⁻)	0.051	< 0.05	-	< 0.05	< 0.05	< 0.05	-	< 0.05	-	-	-	-
Electrical Conductivity (mS/cm)	0.57	0.28	-	0.26	0.14	0.18	-	0.21	-	0.18	-	-
Lead	120	12	-	13	11	18	-	86	150	11	50	14
Mercury	0.27	< 0.05	-	< 0.05	< 0.05	< 0.05	-	< 0.05	-	-	-	-
Molybdenum	2	0.4	-	0.4	0.4	0.6	-	0.6	0.8	0.4	1	0.7
Nickel	82	25	-	30	26	15	-	26	22	26	25	23
Selenium	1.5	< 0.7	-	< 0.7	< 0.7	< 0.7	-	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	< 0.05	-	< 0.05	< 0.05	0.05	-	< 0.05	0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	2.4	0.4	-	0.4	< 0.2	< 0.2	-	< 0.2	-	-	-	-
Thallium	1	0.15	-	0.17	0.16	0.1	-	0.13	0.09	0.15	0.14	0.16
Uranium	2.5	0.54	-	0.54	0.59	0.45	-	0.55	0.55	0.54	0.68	0.58
Vanadium	86	29	-	32	25	23	-	26	22	24	26	23
Zinc	290	57	-	61	52	90	-	710	1600	59	390	67
pH	-	6.79	7.39	7.21	7.72	7.64	7.84	7.51	-	-	-	-

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



Table 5: Summary of Metals and ORPs in Soil

Parameter		BH21-11A/SS2	BH21-11NE/SS1	BH21-11S/SS1	BH21-11S1/SS1	BH21-11SE/SS1	BH21-11SE1/SS1	BH21-12/SS1	BH21-13/SS1	BH21-14/SS1	BH21-15/SS1	BH21-15/SS3	GS1	GS2	
Date of Collection	MECP Table 1 SCS	6-Apr-21	6-Apr-21	6-Apr-21	6-Apr-21	6-Apr-21	6-Apr-21	25-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	25-Feb-21	25-Feb-21	
Date Reported		26-Apr-21	26-Apr-21	26-Apr-21	30-Apr-21	26-Apr-21	30-Apr-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	
Sampling Depth (mbgs)		0.8-1.4	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	1.5-2.1	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14782-APR21	CA14782-APR21	CA14782-APR21	CA15888-APR21	CA14782-APR21	CA15888-APR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	-	< 0.8	< 0.8	
Arsenic	18	4.2	4.2	4.2	4	5.4	4.8	6.2	4.2	5.4	4.1	-	4.6	3.5	
Barium	220	90	88	147	80	127	76	120	98	110	88	-	87	86	
Beryllium	2.5	0.51	0.54	0.59	0.56	0.6	0.59	1.2	0.5	1.1	0.65	-	0.69	0.6	
Boron (total)	36	7	6	4	9	12	9	5	8	5	5	-	3	3	
Boron (Hot Water Soluble)	NA	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	
Cadmium	1.2	0.13	0.19	0.18	0.14	0.25	0.14	0.14	0.41	0.17	0.12	-	0.19	0.31	
Chromium Total	70	18	18	23	18	22	19	31	17	26	21	-	22	22	
Chromium VI	0.66	-	-	-	-	-	-	0.3	< 0.2	0.4	0.5	-	-	-	
Cobalt	21	12	11	9.3	11	12	11	18	8.3	16	11	-	12	10	
Copper	92	26	23	33	21	46	21	39	29	34	25	-	24	21	
Cyanide (CN ⁻)	0.051	-	-	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-	
Electrical Conductivity (mS/cm)	0.57	-	-	-	-	-	-	0.19	0.38	0.2	0.19	-	-	-	
Lead	120	13	29	76	11	82	12	22	70	18	14	-	18	21	
Mercury	0.27	-	-	-	-	-	-	< 0.05	0.08	< 0.05	< 0.05	-	-	-	
Molybdenum	2	0.4	0.5	0.5	0.3	1	0.6	0.6	0.5	0.5	0.4	-	0.5	0.5	
Nickel	82	25	21	21	23	27	24	38	18	34	26	-	25	19	
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	-	< 0.7	< 0.7	
Silver	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05	-	0.05	0.18	
Sodium Adsorption Ratio	2.4	-	-	-	-	-	-	< 0.2	0.2	0.2	< 0.2	-	-	-	
Thallium	1	0.17	0.14	0.12	0.15	0.12	0.14	0.22	0.11	0.2	0.17	-	0.15	0.15	
Uranium	2.5	0.56	0.52	0.59	0.59	0.78	0.58	0.73	0.48	0.62	0.56	-	0.54	0.58	
Vanadium	86	24	25	26	23	29	25	38	21	34	28	-	30	28	
Zinc	290	67	97	428	62	548	62	96	170	72	59	-	64	68	
pH	-	-	-	-	-	-	-	7.46	7.55	7.57	7.6	7.74	-	-	

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



Table 5: Summary of Metals and ORPs in Soil

Parameter	MECP Table 1 SCS	GS3	GS4	GS5	GS6	GS7	GS8	GS9	GS10	MW/BH21B-1 SS1	MW/BH21B-1/SS2	BH/MW21B-1 SS3	MW/BH21B-2 SS1	BH21B-2/SS2	BH/MW21B-2 SS3
		25-Feb-21	25-Feb-21	25-Feb-21	01-Mar-21	25-Feb-21	25-Feb-21	26-Feb-21	25-Feb-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21
Date of Collection	Date Reported	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	22-Jun-21	02-Jul-21	02-Jul-21	22-Jun-21	02-Jul-21	02-Jul-21
Sampling Depth (mbgs)	Analytical Report Reference No.	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0-0.6	0.8-1.4	1.5-2.1	0-0.6	0.8-1.4	1.5-2.1
		CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14248-JUN21 8	CA15754-JUN211	CA15664-JUN218	CA14248-JUN21 11	CA15754-JUN2112	CA15664-JUN219
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	4.6	5.2	5.6	3.9	4.4	4.2	4.6	5	6.7	4.3	5.7	5.5	4	4.3
Barium	220	100	120	97	79	100	110	85	110	140	120	105	630	91	147
Beryllium	2.5	0.91	0.88	0.84	0.62	0.84	0.82	0.65	0.81	0.46	0.55	0.8	0.65	0.49	0.65
Boron (total)	36	4	5	5	6	4	5	6	6	14	6	24	21	6	20
Boron (Hot Water Soluble)	NA	-	-	-	-	-	-	-	-	< 0.5	< 0.5	< 0.5	0.5	< 0.5	< 0.5
Cadmium	1.2	0.21	0.23	0.17	0.15	0.28	0.22	0.19	0.18	0.28	0.13	0.11	0.11	0.09	0.11
Chromium Total	70	24	27	24	20	25	24	22	25	29	19	29	24	17	24
Chromium VI	0.66	-	-	-	-	-	-	-	-	2.7	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Cobalt	21	14	14	15	10	14	11	12	14	6	11	14	11	9.9	12
Copper	92	29	31	38	24	25	25	28	30	24	24	29	21	23	22
Cyanide (CN-)	0.051	-	-	-	-	-	-	-	-	< 0.05	-	< 0.05	< 0.05	-	< 0.05
Electrical Conductivity (mS/cm)	0.57	-	-	-	-	-	-	-	-	0.4	1.1*	-	0.54	0.26	-
Lead	120	18	20	16	13	19	17	14	17	37	9.9	15	11	9.7	11
Mercury	0.27	-	-	-	-	-	-	-	-	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	2	0.5	0.5	0.4	0.3	0.5	0.5	0.4	0.3	1.7	0.6	0.5	1.1	0.3	0.5
Nickel	82	27	32	33	24	25	25	27	34	16	23	28	27	22	25
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	0.08	0.07	< 0.05	< 0.05	0.1	0.08	0.1	0.06	0.06	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	2.4	-	-	-	-	-	-	-	-	2.1	2.8*	-	3.1*	1.7	-
Thallium	1	0.18	0.18	0.17	0.15	0.17	0.16	0.15	0.19	0.1	0.12	0.27	0.22	0.13	0.23
Uranium	2.5	0.6	0.56	0.51	0.56	0.67	0.9	0.56	0.63	0.79	0.78	1.4	0.92	0.63	1.2
Vanadium	86	32	34	31	27	32	32	29	33	26	24	42	30	22	35
Zinc	290	69	79	70	55	68	67	62	65	110	51	62	62	49	54
pH	-	-	-	-	-	-	-	-	-	7.94	-	7.96	7.81	-	8.05

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Table 5: Summary of Metals and ORPs in Soil

Parameter		MW/BH21B-3 SS1	B-GS1	B-GS2	B-GS3	B-GS4	B-GS5	B-GS6	B-GS7	Dup-0630 (B-GS7)	B-GS8	B-GS9	B-GS10
Date of Collection	MECP Table 1 SCS	14-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21	30-Jun-21
Date Reported		22-Jun-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21	02-Jul-21
Sampling Depth (mbgs)		0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6	0-0.6
Analytical Report Reference No.		CA14248-JUN21 14	CA15754-JUN2113	CA15754-JUN2114	CA15754-JUN2115	CA15754-JUN2116	CA15754-JUN2117	CA15754-JUN2118	CA15754-JUN2119	CA15754-JUN2123	CA15754-JUN2120	CA15754-JUN2121	CA15754-JUN2122
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	4.4	3.4	8.2	5.5	6.9	5.7	7.9	2.6	2.6	19	8.2	10
Barium	220	55	41	26	52	55	53	34	38	37	72	22	37
Beryllium	2.5	0.39	0.31	0.14	0.33	0.22	0.32	0.17	0.25	0.25	0.19	0.13	0.18
Boron (total)	36	5	< 1	5	2	8	9	8	2	1	8	16	11
Boron (Hot Water Soluble)	NA	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.18	0.17	0.46	0.29	1.1	0.44	0.45	0.14	0.13	0.63	0.63	0.6
Chromium Total	70	14	11	13	12	17	13	18	9.6	9.9	25	4.1	94
Chromium VI	0.66	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.4	< 0.2	0.3	0.4	< 0.2	3.8
Cobalt	21	6.5	4.7	3.5	5.1	4.6	5.5	6.1	3.6	3.5	4.6	2.6	8.4
Copper	92	19	14	26	19	54	25	71	15	16	47	9.9	110
Cyanide (CN ⁻)	0.051	< 0.05	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity (mS/cm)	0.57	0.24	0.16	0.18	0.14	0.27	0.26	0.99*	0.17	0.25	0.24	0.29	0.3
Lead	120	21	20	32	22	70	40	42	13	13	34	23	110
Mercury	0.27	0.07	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	2	0.3	0.3	1	0.6	1.4	0.8	1.7	0.2	0.2	1.1	1.1	2.3
Nickel	82	13	9.1	6.2	10	9.6	12	7.9	7.3	7.5	9	6.5	10
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	< 0.05	< 0.05	0.09	0.16	0.11	0.07	0.12	0.05	0.06	0.11	0.14	0.18
Sodium Adsorption Ratio	2.4	0.7	0.3	0.4	0.7	3.6*	1.1	0.8	< 0.2	< 0.2	0.4	< 0.2	0.4
Thallium	1	0.1	0.06	0.08	0.09	0.09	0.12	0.07	0.06	0.05	0.08	0.12	0.07
Uranium	2.5	0.51	0.38	0.4	0.46	0.51	0.54	0.38	0.37	0.38	0.37	0.52	0.48
Vanadium	86	20	16	13	17	13	16	13	14	15	13	5	37
Zinc	290	51	42	160	74	330	200	270	35	36	190	220	450
pH	-	7.79	-	-	-	-	-	-	-	-	-	-	-

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



Table 6: Summary of PHCs + BTEX in Soil

Parameter		BH21-3/SS2	BH21-8/SS2	DUP05 (BH21-8/SS2)	BH21-9/SS5	BH21-10/SS2	BH21-10A/SS2	Dup02 (BH21-10A/SS2)	BH21-12/SS2	DUP04 (BH21-12/SS2)
Date of Collection	MECP Table 1 SCS	26-Feb-21	26-Feb-21	26-Feb-21	26-Feb-21	24-Feb-21	6-Apr-21	6-Apr-21	25-Feb-21	25-Feb-21
Date Reported		09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	13-Apr-21	13-Apr-21	09-Mar-21	09-Mar-21
Sampling Depth (mbgs)		0.8-1.4	0.8-1.4	0.8-1.4	3.0-3.6	0.8-1.4	0.8-1.4	0.8-1.4	0.8-1.4	0.8-1.4
Analytical Report Reference No.		CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14124-APR	CA14124-APR	CA14032-MAR21	CA14032-MAR21
Benzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes (Total)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
F1 (C6-C10) -BTEX	25	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F2 (C10-C16)	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F3 (C16-C34)	240	< 50	< 50	< 50	< 50	130	< 50	< 50	< 50	< 50
F4 (C34-C50)	120	< 50	< 50	< 50	< 50	138*	< 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 PHCs + BTEX in Soil

Parameter	MECP Table 1 SCS	BH21-14/SS3	DUP01 (BH21-14/SS3)	BH21-15/SS7	BH21B-1 SS3	BH21B-1 SS4	SDUPB1 (BH21B-1 SS4)	BH21B-2 SS3	BH21B-2 SS4	SDUPB2 (BH21B-2 SS4)	BH21B-3 SS6
Date of Collection		24-Feb-21	24-Feb-21	24-Feb-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21
Date Reported		09-Mar-21	09-Mar-21	09-Mar-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21
Sampling Depth (mbgs)		1.5-2.1	1.5-2.1	6.1-6.7	1.5-2.1	2.3-2.9	2.3-2.9	1.5-2.1	2.3-2.9	2.3-2.9	4.6-5.2
Analytical Report Reference No.	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14248-JUN21 9	CA14248-JUN21 10	CA14248-JUN21 16	CA14248-JUN21 12	CA14248-JUN21 13	CA14248-JUN21 17	CA14248-JUN21 15	
Benzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylenes (Total)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
F1 (C6-C10) -BTEX	25	< 10	< 10	< 10	<10	-	-	<10	-	-	<10
F2 (C10-C16)	10	< 10	< 10	< 10	<10	-	-	<10	-	-	<10
F3 (C16-C34)	240	< 50	< 50	< 50	<50	-	-	<50	-	-	<50
F4 (C34-C50)	120	< 50	< 50	< 50	<50	-	-	<50	-	-	<50

For Table Notes see **Notes for Soil and Groundwater**

Summary Tables, included at the end of this Section.



Table 7: Summary of VOCs in Soil

Parameter	MECP Table 1 SCS	BH21-3/SS2	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	DUP03 (BH21-13/SS2)	BH21-14/SS4	DUP02 (BH21-14/SS4)	BH21-15/SS7	MW/BH21B-1 SS4	SDUPB1 (BH21B-1 SS4)	MW/BH21B-2 SS4	SDUPB2 (BH21B-2 SS4)	MW/BH21B-3 SS6
Date of Collection		26-Feb-21	26-Feb-21	26-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21	14-Jun-21
Date Reported		09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21	22-Jun-21
Sampling Depth (mbs)		1.5-2.1	0.8-1.4	4.6-5.2	0.8-1.4	0.8-1.4	0.8-1.4	0.8-1.4	2.3-2.9	2.3-2.9	6.1-6.7	2.3-2.9	2.3-2.9	2.3-2.9	2.3-2.9
Analytical Report Reference No.	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14248-JUN21 10	CA14248-JUN21 16	CA14248-JUN21 13	CA14248-JUN21 17	CA14248-JUN21 15
Tetrachloroethane, 1,1,1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,3-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloropropane, 1,3-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorobenzene, 1,4-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-cis-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichloroethylene, 1,2-trans-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylene dibromide	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl Ethyl Ketone	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl Isobutyl Ketone	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl tert-Butyl Ether (MTBE)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexane (n)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethylene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromodichloromethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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



Table 8: Summary of PAHs in Soil

Parameter	MECP Table 1 SCS	BH21-3/SS1	BH21-8/SS1	BH21-9/SS1	BH21-10/SS1	BH21-14/SS2	BH21-15/SS1	MW/BH21B-1 SS1	MW/BH21B-2 SS1	MW/BH21B-3 SS1
		Date of Collection	Date Reported	Sampling Depth (mbgs)	Analytical Report Reference No.					
		26-Feb-21	26-Feb-21	26-Feb-21	24-Feb-21	24-Feb-21	24-Feb-21	14-Jun-21	14-Jun-21	14-Jun-21
		09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	22-Jun-21	22-Jun-21	22-Jun-21
		0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.8-1.4	0.0-0.6	0-0.6	0-0.6	0-0.6
		CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14248-JUN21 8	CA14248-JUN21 11	CA14248-JUN21 14
Methylnaphthalene, 2-(1-)	0.59	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	0.072	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	0.093	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	0.16	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benz(a)anthracene	0.36	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.13
Benzo(a)pyrene	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.1
Benzo(b+)fluoranthene	0.47	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05	< 0.05	< 0.05	0.14
Benzo(g,h,i)perylene	0.68	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	0.48	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.06
Chrysene	2.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.12
Dibenz(a,h)anthracene	0.1	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Fluoranthene	0.56	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.25
Fluorene	0.12	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	0.23	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Naphthalene	0.09	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	0.69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.16
Pyrene	1	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05	< 0.05	< 0.05	0.2

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



Table 9: Summary of OCPs in Soil

Parameter	MECP Table 1 SCS	GS1	GS2	DUP06 (GS2)	GS3	GS4	GS5	GS6	GS7	GS8	GS9	GS10
Date of Collection		25-Feb-21	25-Feb-21	25-Feb-21	25-Feb-21	25-Feb-21	25-Feb-21	01-Mar-21	25-Feb-21	25-Feb-21	26-Feb-21	25-Feb-21
Date Reported		09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21	09-Mar-21
Screen Interval (mbgs)		0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6
Analytical Report Reference No.	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21	CA14032-MAR21
Aldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDT	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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



Table 10: Summary of Metals and ORPs in Groundwater

Parameter	MECP Table 1 SCS	MW21-3	MW21-3	Dup02 (MW21-3)	MW21-8	MW21-15	MW/BH21B-1	MW/BH21B-2
Date of Collection		9-Mar-21	6-Apr-21	6-Apr-21	9-Mar-21	9-Mar-21	16-Jun-21	16-Jun-21
Date Reported		17-Mar-21	13-Apr-21	13-Apr-21	17-Mar-21	17-Mar-21	23-Jun-21	23-Jun-21
Screen Interval (mbs)		4.6-6.1	4.6-6.1	4.6-6.1	1.5-4.6	6.1-9.1	2.7-5.8	2.7-5.8
Analytical Report Reference No.		CA14366-MAR21	CA14123-APR21	CA14123-APR21	CA14366-MAR21	CA14366-MAR21	CA14275-JUN21 7	CA14275-JUN21 8
Antimony	1.5	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9	0.9
Arsenic	13	1.1	1.3	1.2	1.2	1.3	1.4	8.1
Barium	610	61.9	48.4	50.3	65	67.1	40.1	121
Beryllium	0.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Boron (total)	1700	739	814	837	377	126	769	395
Cadmium	0.5	0.008	< 0.003	< 0.003	0.007	0.008	0.007	0.012
Chloride	790000	89000	-	-	29000	26000	830000	410000
Chromium Total	11	0.15	0.17	0.29	0.1	0.13	0.37	0.29
Chromium VI	25	< 0.2	-	-	0.2	< 0.2	< 0.2	0.2
Cobalt	3.8	0.337	0.468	0.474	0.112	0.768	1.2	0.868
Copper	5	2	2.7	1.1	1.3	0.8	2.1	0.9
Cyanide (CN-)	5	< 2	-	-	< 2	< 2	< 2	< 2
Lead	1.9	0.02	0.04	0.01	0.02	< 0.01	< 0.09	< 0.09
Mercury	0.1	< 0.01	-	-	< 0.01	< 0.01	< 0.01	< 0.01
Molybdenum	23	11.7	7.92	7.64	19.8	16.6	4.6	12.5
Nickel	14	1.6	1.2	1.3	0.7	2.4	1.8	2.4
Selenium	5	0.58	1.06	1.18	2	1.3	0.08	0.8
Silver	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium	490000	149000	-	-	82400	21800	232000	106000
Thallium	0.5	0.037	0.031	0.032	0.031	0.028	0.022	0.051
Uranium	8.9	17.8	18	18.8	5.78	6.76	18.4	14.6
Vanadium	3.9	1.8	2.47	2.34	1.96	1.07	0.59	2.01
Zinc	160	4	11	8	< 2	< 2	3	< 2
pH	-	7.44	-	-	7.65	7.58	7.41	7.51

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



Table 11: Summary of PHCs in Groundwater

Parameter	MECP Table 1 SCS	MW21-3	Dup-01 (MW21-3)	MW21-8	MW21-15	MW/BH21B-1	Dup-1	MW/BH21B-2	Trip Blank
Date of Collection		9-Mar-21	9-Mar-21	9-Mar-21	9-Mar-21	16-Jun-21	16-Jun-21	16-Jun-21	16-Jun-21
Date Reported		17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	23-Jun-21	23-Jun-21	23-Jun-21	23-Jun-21
Screen Interval (mbgs)		4.6-6.1	4.6-6.1	1.5-4.6	6.1-9.1	2.7-5.8	2.7-5.8	2.7-5.8	-
Analytical Report Reference No.		CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14275-JUN21 7	CA14275-JUN21 9	CA14275-JUN21 8	CA14275-JUN21 10
Benzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5
Ethylbenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5
Toluene	0.8	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5
Xylenes (Total)	72	< 0.5	< 0.5	< 0.5	< 0.5	<0.5	<0.5	<0.5	<0.5
F1 (C6 to C10) minus BTEX	420	< 25	< 25	< 25	< 25	<25	<25	<25	-
F2 (C10 to C16)	150	< 100	-	< 100	< 100	<100	<100	<100	-
F3 (C16 to C34)	500	< 200	-	< 200	< 200	<200	<200	<200	-
F4 (C34 to C50) minus PAHs	500	< 200	-	< 200	< 200	<200	<200	<200	-

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



Table 12: Summary of VOCs in Groundwater

Parameter	MECP Table 1 SCS	MW21-3	Dup-01 (MW21-3)	MW21-8	MW21-15	Trip Blank	MW/BH21B-1	MW/BH21B-2	Trip Blank
		Date of Collection	Date of Collection	Date of Collection	Date of Collection	Date of Collection	Date of Collection	Date of Collection	Date of Collection
Date Reported		17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	17-Mar-21	23-Jun-21	23-Jun-21	23-Jun-21
Screen Interval (mbs)		4.6-6.1	4.6-6.1	1.5-4.6	6.1-9.1	-	2.7-5.8	2.7-5.8	-
Analytical Report Reference No.		CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14275-JUN21 7	CA14275-JUN21 8	CA14275-JUN21 10
Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethane, 1,1,1-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethane, 1,1,2,2-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethane, 1,1,2-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloroethane, 1,1-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloroethylene, 1,1-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorobenzene, 1,2-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloroethane, 1,2-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloropropane, 1,2-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorobenzene, 1,3-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloropropene, 1,3-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorobenzene, 1,4-	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acetone	2700	< 30	< 30	< 30	< 30	< 30	< 30	< 30	< 30
Bromomethane	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.8	< 0.8	< 0.8
Carbon Tetrachloride	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Chloroform	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloroethylene, 1,2-cis-	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichloroethylene, 1,2-trans-	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	590	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Ethylene dibromide	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Methyl Ethyl Ketone	400	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Methyl Isobutyl Ketone	640	< 20	< 20	< 20	< 20	< 20	< 20	< 20	< 20
Methyl tert-Butyl Ether (MTBE)	15	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Methylene Chloride	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Hexane (n)	5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1
Styrene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethylene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethylene	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	150	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	0.5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromodichloromethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

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

**Table 13: Summary of PAHs in Groundwater**

Parameter	MECP Table 1 SCS	MW21-3	MW21-8	MW21-15	MW/BH21B-1	MW/BH21B-2
Date of Collection		9-Mar-21	9-Mar-21	9-Mar-21	16-Jun-21	16-Jun-21
Date Reported		17-Mar-21	17-Mar-21	17-Mar-21	23-Jun-21	23-Jun-21
Screen Interval (mbgs)		4.6-6.1	1.5-4.6	6.1-9.1	2.7-5.8	2.7-5.8
Analytical Report Reference No.		CA14366-MAR21	CA14366-MAR21	CA14366-MAR21	CA14275-JUN21 7	CA14275-JUN21 8
Methylnaphthalene, 2-(1-)	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Acenaphthene	4.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benz(a)anthracene	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b+j)fluoranthene	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(g,h,i)perylene	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Benzo(k)fluoranthene	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	0.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	120	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Naphthalene	7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Phenanthrene	0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Pyrene	0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1

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



Table 14: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.3	< 0.8	All Samples
	Arsenic	18	19	B-GS8
	Barium	220	630	MW/BH21B-2 SS1
	Beryllium	2.5	1.2	BH21-12/SS1
	Boron (total)	36	24	BH/MW21B-1 SS3
	Boron (Hot Water Soluble)	NA	0.5	MW/BH21B-2 SS1
	Cadmium	1.2	1.1	B-GS4
	Chromium Total	70	94	B-GS10
	Chromium VI	0.66	3.8	B-GS10
	Cobalt	21	18	BH21-12/SS1
	Copper	92	120	BH21-11/SS1
	Cyanide (CN-)	0.051	< 0.05	All Samples
	Electrical Conductivity (mS/cm)	0.57	1.1*	MW/BH21B-2 SS1
	Lead	120	150	BH21-11/SS1
	Mercury	0.27	0.08	BH21-13/SS1
	Molybdenum	2	2.3	B-GS10
	Nickel	82	38	BH21-12/SS1
	Selenium	1.5	< 0.7	All Samples
	Silver	0.5	0.18	GS2
	Sodium Adsorption Ratio	2.4	3.6*	MW/BH21B-1 SS1
	Thallium	1	0.27	BH/MW21B-1 SS3
	Uranium	2.5	1.4	BH/MW21B-1 SS3
	Vanadium	86	42	BH/MW21B-1 SS3
Zinc	290	1600	BH21-11/SS1	
pH	-	8.05	BH/MW21B-2 SS3	
PHCs + BTEX	Benzene	0.02	< 0.02	All Samples
	Ethylbenzene	0.05	< 0.05	All Samples
	Toluene	0.2	< 0.05	All Samples
	Xylenes (Total)	0.05	< 0.05	All Samples
	F1 (C6-C10) -BTEX	25	< 10	All Samples
	F2 (C10-C16)	10	< 10	All Samples
	F3 (C16-C34)	240	130	BH21-10/SS2
	F4 (C34-C50)	120	138*	All Samples
VOCs	Tetrachloroethane, 1,1,1,2-	0.05	< 0.05	All Samples
	Trichloroethane, 1,1,1-	0.05	< 0.05	All Samples
	Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	All Samples
	Trichloroethane, 1,1,2-	0.05	< 0.05	All Samples
	Dichloroethane, 1,1-	0.05	< 0.05	All Samples
	Dichloroethylene, 1,1-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,2-	0.05	< 0.05	All Samples
	Dichloroethane, 1,2-	0.05	< 0.05	All Samples
	Dichloropropane, 1,2-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,3-	0.05	< 0.05	All Samples
	Dichloropropene, 1,3-	0.05	< 0.05	All Samples



Table 14: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location
VOCs	Dichlorobenzene, 1,4-	0.05	< 0.05	All Samples
	Acetone	0.5	< 0.5	All Samples
	Bromomethane	0.05	< 0.05	All Samples
	Carbon Tetrachloride	0.05	< 0.05	All Samples
	Chlorobenzene	0.05	< 0.05	All Samples
	Chloroform	0.05	< 0.05	All Samples
	Dichloroethylene, 1,2-cis-	0.05	< 0.05	All Samples
	Dichloroethylene, 1,2-trans-	0.05	< 0.05	All Samples
	Dichlorodifluoromethane	0.05	< 0.05	All Samples
	Ethylene dibromide	0.05	< 0.05	All Samples
	Methyl Ethyl Ketone	0.5	< 0.5	All Samples
	Methyl Isobutyl Ketone	0.5	< 0.5	All Samples
	Methyl tert-Butyl Ether (MTBE)	0.05	< 0.05	All Samples
	Methylene Chloride	0.05	< 0.05	All Samples
	Hexane (n)	0.05	< 0.05	All Samples
	Styrene	0.05	< 0.05	All Samples
	Tetrachloroethylene	0.05	< 0.05	All Samples
	Trichloroethylene	0.05	< 0.05	All Samples
	Trichlorofluoromethane	0.25	< 0.05	All Samples
	Vinyl Chloride	0.02	< 0.02	All Samples
	Bromodichloromethane	0.05	< 0.05	All Samples
Bromoform	0.05	< 0.05	All Samples	
Dibromochloromethane	0.05	< 0.05	All Samples	
PAHs	Methylnaphthalene, 2-(1-)	0.59	< 0.05	All Samples
	Acenaphthene	0.072	< 0.05	All Samples
	Acenaphthylene	0.093	< 0.05	All Samples
	Anthracene	0.16	< 0.05	All Samples
	Benz(a)anthracene	0.36	0.13	MW/BH21B-3 SS1
	Benzo(a)pyrene	0.3	0.1	MW/BH21B-3 SS1
	Benzo(b+j)fluoranthene	0.47	0.14	MW/BH21B-3 SS1
	Benzo(g,h,i)perylene	0.68	< 0.1	All Samples
	Benzo(k)fluoranthene	0.48	0.06	MW/BH21B-3 SS1
	Chrysene	2.8	0.12	MW/BH21B-3 SS1
	Dibenz(a,h)anthracene	0.1	< 0.06	All Samples
	Fluoranthene	0.56	0.25	MW/BH21B-3 SS1
	Fluorene	0.12	< 0.05	All Samples
	Indeno(1,2,3-cd)pyrene	0.23	< 0.1	All Samples
	Naphthalene	0.09	< 0.05	All Samples
	Phenanthrene	0.69	0.16	MW/BH21B-3 SS1
	Pyrene	1	0.2	MW/BH21B-3 SS1
OCPS	Aldrin	0.05	< 0.05	All Samples
	Chlordane	0.05	< 0.05	All Samples
	DDD	0.05	< 0.05	All Samples
	DDE	0.05	< 0.05	All Samples
	DDT	1.4	< 0.05	All Samples
	Dieldrin	0.05	< 0.05	All Samples
	Endosulfan	0.04	< 0.04	All Samples
	Endrin	0.04	< 0.04	All Samples
	Hexachlorocyclohexane Gamma-	0.01	< 0.01	All Samples
	Heptachlor	0.05	< 0.01	All Samples
	Heptachlor Epoxide	0.05	< 0.01	All Samples
	Hexachlorobenzene	0.01	< 0.01	All Samples
	Hexachlorobutadiene	0.01	< 0.01	All Samples
	Hexachloroethane	0.01	< 0.01	All Samples
	Methoxychlor	0.05	< 0.05	All Samples

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

**Table 15: Summary of Maximum Concentrations in Groundwater**

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.5	0.9	MW/BH21B-2
	Arsenic	13	8.1	MW/BH21B-2
	Barium	610	121	MW/BH21B-2
	Beryllium	0.5	< 0.007	All Samples
	Boron (total)	1700	837	Dup02 (MW21-3)
	Cadmium	0.5	0.012	MW/BH21B-2
	Chloride	790000	830000*	MW/BH21B-1
	Chromium Total	11	0.37	MW/BH21B-1
	Chromium VI	25	0.2	MW21-8
	Cobalt	3.8	1.2	MW/BH21B-1
	Copper	5	2.7	MW21-3
	Cyanide (CN-)	5	< 2	All Samples
	Lead	1.9	0.04	MW21-3
	Mercury	0.1	< 0.01	All Samples
	Molybdenum	23	19.8	MW21-8
	Nickel	14	2.4	MW21-15
	Selenium	5	2	MW21-8
	Silver	0.3	< 0.05	All Samples
	Sodium	490000	232000	MW/BH21B-1
	Thallium	0.5	0.051	MW/BH21B-2
Uranium	8.9	18.8**	Dup02 (MW21-3)	
Vanadium	3.9	2.47	MW21-3	
Zinc	160	11	MW21-3	
pH	-	7.65	MW21-8	
PHCs + BTEX	Benzene	0.5	< 0.5	All Samples
	Ethylbenzene	0.5	< 0.5	All Samples
	Toluene	0.8	< 0.5	All Samples
	Xylenes (Total)	72	< 0.5	All Samples
	F1 (C6 to C10) minus BTEX	420	< 25	All Samples
	F2 (C10 to C16)	150	< 100	All Samples
	F3 (C16 to C34)	500	< 200	All Samples
	F4 (C34 to C50) minus PAHs	500	< 200	All Samples
VOCs	Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	All Samples
	Trichloroethane, 1,1,1-	0.5	< 0.5	All Samples
	Tetrachloroethane, 1,1,2,2-	0.5	< 0.5	All Samples
	Trichloroethane, 1,1,2-	0.5	< 0.5	All Samples
	Dichloroethane, 1,1-	0.5	< 0.5	All Samples
	Dichloroethylene, 1,1-	0.5	< 0.5	All Samples
	Dichlorobenzene, 1,2-	0.5	< 0.5	All Samples
	Dichloroethane, 1,2-	0.5	< 0.5	All Samples
	Dichloropropane, 1,2-	0.5	< 0.5	All Samples
	Dichlorobenzene, 1,3-	0.5	< 0.5	All Samples
	Dichloropropene, 1,3-	0.5	< 0.5	All Samples
	Dichlorobenzene, 1,4-	0.5	< 0.5	All Samples
	Acetone	2700	< 30	All Samples

**Table 15: Summary of Maximum Concentrations in Groundwater**

	Parameter	Standard	Maximum Concentration	Location
VOCs	Bromomethane	0.89	< 0.5	All Samples
	Carbon Tetrachloride	0.2	< 0.2	All Samples
	Chlorobenzene	0.5	< 0.5	All Samples
	Chloroform	2	< 0.5	All Samples
	Dichloroethylene, 1,2-cis-	1.6	< 0.5	All Samples
	Dichloroethylene, 1,2-trans-	1.6	< 0.5	All Samples
	Dichlorodifluoromethane	590	< 2	All Samples
	Ethylene dibromide	0.2	< 0.2	All Samples
	Methyl Ethyl Ketone	400	< 20	All Samples
	Methyl Isobutyl Ketone	640	< 20	All Samples
	Methyl tert-Butyl Ether (MTBE)	15	< 2	All Samples
	Methylene Chloride	5	< 0.5	All Samples
	Hexane (n)	5	< 1	All Samples
	Styrene	0.5	< 0.5	All Samples
	Tetrachloroethylene	0.5	< 0.5	All Samples
	Trichloroethylene	0.5	< 0.5	All Samples
	Trichlorofluoromethane	150	< 5	All Samples
	Vinyl Chloride	0.5	< 0.2	All Samples
	Bromodichloromethane	2	< 0.5	All Samples
	Bromoform	5	< 0.5	All Samples
Dibromochloromethane	2	< 0.5	All Samples	
PAHs	Methylnaphthalene, 2-(1-)	2	< 0.5	All Samples
	Acenaphthene	4.1	< 0.1	All Samples
	Acenaphthylene	1	< 0.1	All Samples
	Anthracene	0.1	< 0.1	All Samples
	Benz(a)anthracene	0.2	< 0.1	All Samples
	Benzo(a)pyrene	0.01	< 0.01	All Samples
	Benzo(b+j)fluoranthene	0.1	< 0.1	All Samples
	Benzo(g,h,i)perylene	0.2	< 0.2	All Samples
	Benzo(k)fluoranthene	0.1	< 0.1	All Samples
	Chrysene	0.1	< 0.1	All Samples
	Dibenz(a,h)anthracene	0.2	< 0.1	All Samples
	Fluoranthene	0.4	< 0.1	All Samples
	Fluorene	120	< 0.1	All Samples
	Indeno(1,2,3-cd)pyrene	0.2	< 0.2	All Samples
	Naphthalene	7	< 0.5	All Samples
	Phenanthrene	0.1	< 0.1	All Samples
Pyrene	0.2	< 0.1	All Samples	

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.
masl	Meters above sea level
MECP Table 1 SCS	Full Depth Background Site Condition Standards for all property uses other than agricultural as contained in Table 1 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.
*	The F4 values at the undicated borehole was averaged as per the provision listed in S.48(2) of O.Reg 153/04. Indicating that the sample met the standard.
**	The elevated concentration of Uranium are attributed to the natural backgrounds conditions associated with the bedrock geology in the Phase Two Property and not contamination under the EPA.
mbgs	Meters below ground surface
NM	Not Monitored
NA	Not Aplicable
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
OCPs	Organochlorine Pesticides
PAH	Polyaromatic Hydrocarbon
PHC	Petroluem 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
Bolded*	Salt exemption under O.Reg. 407/19 is applied, contaminant considered to meet the applicable standards



Appendix A



Appendix B



19-323-100

May 8, 2023

Argo Development Corporation

4900 Palladium Way, Suite 105

Burlington, Ontario

L7M 0W7

via email: adrian@argoland.com

Attention: Adrian Marsilli

Re: Sampling and Analysis Plan – Phase Two Environmental Site Assessment

**Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278
Regional Road 25, Oakville, ON**

1. Introduction

DS Consultants Limited (DS) is pleased to present the Sampling and Analysis Plan (SAP) for the proposed Phase Two Environmental Site Assessment of Part of Lot 31, Concession 1, Trafalgar NDS, S&E Parts 1, 3, 5, 7 & 10, 20R16040 and 3278 Regional Road 25, Oakville, ON, (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 in May 2023, it is DS's understanding that the Site is a 56.4 hectare (139.3 acres) parcel of land which is currently used for mixed residential and agricultural purposes. The first developed use of the Site is interpreted to be Agricultural based on the findings of the Phase One ESA. A total of twenty-three (23) 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 1 below:

Table 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-1A	Vicinity of the fuel oil AST west adjacent to Site Building F	PCA-4: #28 – Gasoline and associated products storage in fixed tanks - A 680 L heating fuel oil AST (AST 2) was observed along the exterior wall of Site Building F, located at 3278 Regional Road 25.	On Site	PHCs, BTEX, VOCs, Metals	Soil and Groundwater
APEC-1B	Vicinity of the fuel oil AST west adjacent to Site Building F	PCA-5: #28 – Gasoline and associated products storage in fixed tanks - A 4500 L cylindrical steel encased AST (AST 3) was observed along the west side of Site Building F and is used for bulk storage of heating fuel oil for AST 1 and AST 2 at 3278 Regional Road 25.	On Site	PHCs, BTEX, VOCs, Metals	Soil and Groundwater
APEC-1C	Vicinity of the fuel oil AST observed in the basement of Site Building E	PCA-23: #28 – Gasoline and Associated Products Storage in Fixed Tanks - A 900 L heating fuel oil AST (AST 1) was observed in the basement of Site Building E.	On Site	PHCs, BTEX, VOCs, Metals	Soil and Groundwater
APEC-1D	Vicinity of the dyed diesel AST observed west adjacent to Site Building F	PCA-19: #28 – Gasoline and Associated Products Storage in Fixed Tanks - One (1) dyed diesel AST (AST 4) was observed on Site for vehicle re-fueling purposes.	On Site	PHCs, BTEX, VOCs, Metals	Soil and Groundwater
APEC-1E	Vicinity of the diesel AST observed west adjacent to Site Building F	PCA-20: #28 – Gasoline and Associated Products Storage in Fixed Tanks - One (1) clear diesel AST (AST 5) was observed	On Site	PHCs, BTEX, VOCs, Metals	Soil and Groundwater



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)
		adjacent to the dyed diesel AST and was used for re-fueling purposes.			
APEC-2	Southwest portion of Phase One Property	PCA-8: #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications - An orchard historically operated at the southwestern corner of the Phase One Property.	On Site	OCPs, Metals, As, Sb, Se, CN-	Soil
APEC-3	Western portion of the Site, in the vicinity of 3278 Regional Road 25	PCA-9: N/S – Miscellaneous Debris and Materials - Miscellaneous debris and material has been stored in the western portion of the Property and extended west of the Site.	On Site	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg, low or high pH, SAR	Soil and groundwater
APEC- 4A	Vicinity of the soil stockpile south adjacent to 3278 Regional Road 25	PCA-15: # 30 – Importation of Fill Material of Unknown Quality - A soil stockpile of unknown origin was located on the Phase One Property adjacent to the property located at 3278 Regional Road 25.	On Site	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg, low or high pH, SAR	Soil
APEC -4B	Southern portion of the Site at the location of current and former Site buildings	PCA-12: # 30 – Importation of Fill Material of Unknown Quality - Former Building D has been demolished; fill material may have been used to infill the area it formerly occupied.			Soil
APEC- 4C	Southern portion of the	PCA-10: # 30 – Importation of Fill			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)
	Site at the location of current and former Site buildings	Material of Unknown Quality - A stockpile of construction debris (brick, lumber) and soil was observed to the south of the former extent of Site Building A and west adjacent to Site Building B.			
APEC-4D	Southern portion of the Site at the location of current and former Site buildings	PCA-13: # 30 – Importation of Fill Material of Unknown Quality - Site Building A historically encompassed a larger footprint, it is inferred that fill material may have been utilized for grading purposes when the structure was demolished in the mid 1990s. Additionally, at the time of the Site Visit, the remaining interior of Site Building A was filled with miscellaneous construction debris (lumber, brick) and general refuse.			Soil
APEC-4E	Southern portion of the Site at the location of current and former Site buildings	PCA-16: # 30 – Importation of Fill Material of Unknown Quality - Former Building C has been demolished; fill material may have been used to infill the area it formerly occupied.			Soil
APEC-5	Southwest portion of Phase One Property	PCA-11: N/S – Miscellaneous Refuse, Debris, and Derelict Vehicles - Yard waste, miscellaneous refuse and	On Site	PHCs, VOCs, PAHs, Metals, As, Sb, Se, Na, B-HWS, CN-, EC, Cr (VI) Hg,	Soil and groundwater



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)
		abandoned vehicles such as various trucks, and trailers, two (2) parked boats, dis-used cars, trailers, tires, shipping containers and smaller containers were observed on the southwest corner of the Phase One Property.		low or high pH, SAR	
APEC-6	Vicinity of center and western portion of 3278 Regional Road 25	PCA-18: N/S – On-Site waste generation - 3278 Regional Road 25 was listed in ERIS for the generation of waste oils and lubricants, associated with the use of the address as a small excavation business.	On-Site	PHCs, BTEX	Soil and Groundwater
APEC-7	Vicinity of Site Building F and vehicle maintenance activities on Site	PCA-22: #27- Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles -The Site has been used for light vehicle maintenance/servicing activities.	On-Site	PHCs, VOCs, BTEX, PAHs	Soil and groundwater

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

Notes:

1. PHC (F1-F4) = Petroleum Hydrocarbons in the F1-F4 fraction ranges
2. VOCs = Volatile Organic Compounds
3. PAHs = Polycyclic Aromatic Hydrocarbons
4. PCBs = Polychlorinated Biphenyls

3. Site Investigation Program

The proposed field investigation will involve the advancement of boreholes, the installation of monitoring wells, and periodic monitoring of the installed wells. A total of 45 borehole locations have been identified in conjunction with the geotechnical assessments. Details regarding the proposed boreholes/monitoring wells 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
BH21-2	6.3 mbgs	Y	6.1 mbgs	For Geotechnical Investigation
BH21-3	6.4 mbgs	Y	6.1 mbgs	Soil Characterization
BH21-4	4.9 mbgs	Y	4.9 mbgs	For Geotechnical Investigation
BH21-5	4.7 mbgs	Y	4.6 mbgs	For Geotechnical Investigation
BH21-6	8.2 mbgs	Y	8.2 mbgs	For Geotechnical Investigation
BH21-7	8.2 mbgs	Y	2.7 mbgs	For Geotechnical Investigation
BH21-8	5.2 mbgs	Y	4.6 mbgs	APEC-3A, 3B
BH21-9	5.2 mbgs	N	-	APEC-3A, 3B
BH21-10	2.1 mbgs	N	-	APEC-4A, 4B, 4C, 4D
BH21-11	2.1 mbgs	N	-	APEC-4A, 4B, 4C, 4D
BH21-12	2.1 mbgs	N	-	APEC-4A, 4B, 4C, 4D
BH21-13	2.1 mbgs	N	-	APEC-4A, 4B, 4C, 4D
BH21-14	6.7 mbgs	N	-	APEC-2, 5
BH21-15	9.7 mbgs	Y	9.2 mbgs	APEC-2, 5
BH/MW21B-1	6.7 mbgs	Y	5.8 mbgs	APEC-3, 6, 7
BH/MW21B-2	6.7 mbgs	Y	5.8 mbgs	APEC-1A, 1B, 1E, 1D, 3, 6, 7
BH/MW21B-3	6.7 mbgs	Y	5.8 mbgs	APEC-1C
BH22-1	5.4 mbgs	N	-	For Geotechnical Investigation
BH22-2	5.3 mbgs	Y	4.6 mbgs	For Geotechnical Investigation
BH22-3	3.2 mbgs	N	-	For Geotechnical Investigation
BH22-4	6.2 mbgs	N	-	For Geotechnical Investigation
BH22-5	4.8 mbgs	N	-	For Geotechnical Investigation
BH22-6	4.6 mbgs	Y	4.4 mbgs	For Geotechnical Investigation
BH22-7	9.1 mbgs	Y	9.1 mbgs	For Geotechnical Investigation
BH22-8	7.7 mbgs	N	-	For Geotechnical Investigation
BH22-9	15.3 mbgs	Y	9.1 mbgs	For Geotechnical Investigation
BH22-10	8.2 mbgs	N	-	For Geotechnical Investigation
BH22-11	8.1 mbgs	N	-	For Geotechnical Investigation
BH22-12	8.2 mbgs	N	-	For Geotechnical Investigation
BH22-13	8.2 mbgs	N	-	For Geotechnical Investigation
BH22-14	15.3 mbgs	Y	9.1 mbgs	For Geotechnical Investigation
BH22-15	15.7 mbgs	N	-	For Geotechnical Investigation
BH22-16	15.3 mbgs	Y	9.1 mbgs	For Geotechnical Investigation
BH22-17	15.3 mbgs	Y	15.3 mbgs	For Geotechnical Investigation
BH22-18	15.3 mbgs	Y	6.1 mbgs	For Geotechnical Investigation
GS1	0.6 mbgs	N	-	APEC-2
GS2	0.6 mbgs	N	-	APEC-2
GS3	0.6 mbgs	N	-	APEC-2
GS4	0.6 mbgs	N	-	APEC-2
GS5	0.6 mbgs	N	-	APEC-2
GS6	0.6 mbgs	N	-	APEC-2
GS7	0.6 mbgs	N	-	APEC-2



ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Purpose
GS8	0.6 mbgs	N	-	APEC-2
GS9	0.6 mbgs	N	-	APEC-2
GS10	0.6 mbgs	N	-	APEC-2

Prior to mobilizing a drilling rig, we will lay out the proposed borehole and clear the buried utilities and services by using Ontario One Call System in addition to private utility locates.

The borings will be advanced to the indicated depths using a combination of a truck/track mounted continuous flight auger machine and AMS Hand Auger (for GS1, GS2, GS3, GS4, GS5, GS6, GS7, GS8, GS9 and GS10). Samples will be retrieved by means of a 50 mm O.D. split-spoon barrel sampler at 0.75 metre intervals in the upper 3 metres and at 1.5 metres intervals below this level. The monitoring wells will be constructed using 50 mm I.D. PVC pipe, equipped with 3.1 m slotted screens and finished at the ground surface with stick up well casings. A geodetic benchmark will be used to establish the elevation of each borehole. Drilling and sampling will conform to standard practice.

The Phase Two ESA involves the following principal tasks:

- Retain the services of public and private utility locaters to identify the locations of buried and overhead utility services prior to any excavation or demolition activities;
 - Certain underground utilities (such as those constructed or encased in plastic, fibreglass, clay, concrete pipe, untraceable cast iron, steel, and/or repaired services) cannot be traced by standard locating practices. DS will review all available Site Plans and/or “As Built” figures in an attempt to identify the locations of potential untraceable services. DS will not be held responsible for any damages to utility services that are not on the figures provided or cannot be located by standard utility locating practices;
- Advancement of boreholes as specified in Table 3-1. The proposed boreholes will be used to facilitate the collection of representative soil and groundwater samples, and to provide information regarding the Site-specific geological and hydrogeological 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;
- Measure the depth to groundwater levels in the monitoring wells installed, and monitor the wells for the presence/absence of non-aqueous phase liquid using an interface probe;



- Survey each of the monitoring wells to a geodetic datum;
- Develop and purge all of the monitoring wells installed;
- Submit soil samples from the newly advanced boreholes as follows:

Table 3-2: Summary of proposed soil chemical analyses

Borehole	Sample No	Sample Depth (mbgs)	Lab Analysis	Purpose
BH21-3	SS1	0.0-0.6	M&I, PAHs	Soil Characterization
	SS2	0.8-1.4	PHCs, BTEX	Soil Characterization
	SS3	3.0-3.7	VOCs, pH	Soil Characterization
BH21-8	SS1	0.0-0.6	M&I, PAHs	Assess APEC-3A, 3B
	SS2	0.8-1.4	PHCs, VOCs	
	DUP05		PAHs	
BH21-9	SS1	0.0-0.6	PAHs	Assess APEC-3A, 3B
	SS2	0.8-1.4	M&I	
	SS5	3.0-3.6	PHCs, BTEX	
	SS6	4.6-5.0	VOCs	
BH21-10	SS1	0.0-0.6	M&I, PAHs	Assess APEC-4A, 4B, 4C, 4D
	SS2	0.8-1.4	PHCs, VOCs	
	SS3	1.5-2.1	pH	
BH21-11	SS1	0.0-0.6	M&I	Assess soil conditions (APEC-13)
BH21-12	SS1	0.0-0.6	M&I	Assess APEC-4A, 4B, 4C, 4D
	SS2	0.8-1.4	PHCs, BTEX	
	DUP04	0.8-1.4	PHCs, BTEX	
BH21-13	SS1	0.0-0.6	M&I	Assess APEC-4A, 4B, 4C, 4D
	SS2	0.8-1.4	VOCs	Assess APEC-4A, 4B, 4C, 4D
	DUP03	0.8-1.4	VOCs	Assess APEC-4A, 4B, 4C, 4D
BH21-14	SS1	0.0-0.6	M&I	Assess APEC-2, 5
	SS2	0.8-1.4	PAHs	APEC-5
	SS3	1.5-2.1	PHCs, BTEX	
	DUP01	1.5-2.1	PHCs, BTEX	
	SS4	2.3-2.9	VOCs	
	DUP02	2.3-2.9	VOCs	
BH21-15	SS1	0.0-0.6	M&I, PAHs	Assess APEC-2,5
	SS3	1.5-2.1	pH	-
	SS7	6.1-6.7	PHCs, VOCs	Assess APEC-5
GS1	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS2	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
	DUP06	0.0-0.6	Metals, OCPs	Assess APEC-2
GS3	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS4	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS5	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS6	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS7	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS8	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2



Borehole	Sample No	Sample Depth (mbgs)	Lab Analysis	Purpose
GS9	SS1	0.0-0.6	Metals, OCPs	Assess APEC-2
GS10	SS1	0.0-0.6	Metals, OCPs	Assess APEC2
MW/BH21B-1	SS1	0.0-0.6	M&I	Assess APEC-3, 6, 7
	SS2	0.8-1.4	M&I	Soil Characterization
	SS3	1.5-2.1	PHCs	Assess APEC-3, 6, 7
	SS4	2.3-2.9	VOCs	Assess APEC-3, 6, 7
	SDUPB1	2.3-2.9	VOCs	Assess APEC-3, 6, 7
MW/BH21B-2	SS1	0.0-0.6	M&I	Assess APEC-3, 6, 7
	SS2	0.8-1.4	M&I	Soil Characterization
	SS3	1.5-2.1	PHCs	Assess APEC-1A, 1B, 1E, 1D, 3, 6, 7
	SS4	2.3-2.9	VOCs	Assess APEC-1A, 1B, 1E, 1D, 3, 6, 7
	SDUPB2	2.3-2.9	VOCs	Assess APEC-1A, 1B, 1E, 1D, 3, 6, 7
MW/BH21B-3	SS1	0.0-0.6	M&I, PAHs	Assess APEC-1C
	SS6	4.6-5.2	PHCs, VOCs	Assess APEC-1C

- Submit groundwater samples from the monitoring wells as follows:

Table 3-3: Summary of proposed groundwater analyses

Well ID	Well Depth	Lab Analysis	Purpose
MW21-3	6.1 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-1A, 1B
MW21-8	4.6 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-1A, 1B, 3
MW21-15	9.1 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-5
MW/BH21B-1	5.8 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-3, 6, 7
MW/BH21B-2	5.8 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-1A, 1B, 13, 1D, 3, 6, 7
MW/BH21B-3	5.8 mbgs	M&I, PHCs, VOCs, PAHs	Assess APEC-1C

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

Table 3-4: Summary of Soil and Groundwater Analytical Program

Soil	Groundwater
<ul style="list-style-type: none"> • 24 Samples for analysis of metals and As, Sb, Se, B-HWS, electrical conductivity (EC), Cr(VI), Hg, SAR and pH (Other Regulated Parameters, ORPs) • 3 Samples for analysis of pH • 13 Samples for analysis of PHCs • 10 Samples for analysis of VOCs • 9 Samples for analysis of PAHs • 11 Samples for analysis of OCPs 	<ul style="list-style-type: none"> • 6 Samples for analysis of metals and ORPs • 5 Samples for analysis of PHCs • 5 Samples for analysis of VOCs • 5 Samples for analysis of PAHs



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- 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 accordance with O.Reg. 153/04 (as amended).

It should be noted that drilling activities may result in some disturbance to the ground surface at the site. Precautions will be taken by the drilling contractor to minimize any damage. The Client will be notified should there be cause to extend the borehole termination depth based on field observations. 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 and/or groundwater 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 and/or groundwater 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.



DS CONSULTANTS LTD.

Geotechnical ♦ Environmental ♦ Materials ♦ Hydrogeology

Yours Very Truly,

DS Consultants Ltd.

Alice Gong, B.Sc
Environmental Specialist



Appendix C



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810217.231 E 598588.943

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/26/2021
 REF. NO.: 19-323-100
 ENCL NO.: 1

SOIL PROFILE		SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	GR SA SI CL
157.2															
156.9	TOPSOIL: 230mm														
0.2	SILTY CLAY TO CLAYEY SILT: Brown, moist to wet		1	SS	3										
1	Green and white mottling, dry to moist from 0.8-2.3 m		2	SS	27		156								
2			3	SS	20										
154.9	SILTY : Some clay, brown, some boulders, dry to moist		4	SS	50/ 150mm		154.5								
2.3															
154.2	SILT TO CLAYEY SILT: Brown to red, some boulders, dry to moist		5	SS	50/ 280mm		154								
3.0															
4							153								
152.6	SILTY TILL: Brown to red, dry to moist		6	SS	29										
4.6															
152.0	TILL/ SHALE COMPLEX: Silty Clay Till mixed with weathered shale, reddish to brown														
152.0	SHALE BEDROCK: Queenston Formation, weathered, red														
5.2															
6															
150.9	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Water Level (mbgl):		7	SS	50/ 25mm										
6.3															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810583.864 E 598197.563

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/26/2021
 REF. NO.: 19-323-100
 ENCL NO.: 2

SOIL PROFILE			SAMPLES			Soil Head Space Vapors			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)						
164.8	TOPSOIL: 190mm													
164.0	CLAYEY SILT: Brown, moist, green and red mottling		1	SS	6	Cement	164.0							Metals and ORPs, PAHs
163.3	Brown to red, white mottling at 0.8m		2	SS	29		164.0							PHCs
163.3	CLAYEY SILT TILL :Brown to red, green mottling, dry to moist		3	SS	34		163.3							VOCs, pH
162.0	Trace oxidation at 3 m		4	SS	42	Bentonite	162.0							
161.0			5	SS	45		161.0							
159.8	TILL/SHALE COMPLEX: Silty Clay Till mixed with weathered shale, reddish to brown		6	SS	50/ 430mm	W. L. 160.5 masl Mar 09, 2021	160.0							
158.7	SHALE BEDROCK: Queenston Formation weathered red		7	SS	50/ 280mm	Filter Pack Slotted Pipe	159.0							
158.4	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Mar 9, 2021 Water Level (mbgs): 4.24													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810475.152 E 597957.671

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/01/2021
 REF. NO.: 19-323-100
 ENCL NO.: 3

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)	CGD (ppm)						
162.0															
160.8	TOPSOIL: 170mm														
0.2	CLAYEY SILT: Brown, dry to moist, green, white and red mottling		1	SS	3										
			2	SS	28										
			3	SS	25										
159.8															
2.1	SHALE BEDROCK: Queenston Formation, weathered, red		4	SS	50/ 800mm										
			5	SS	54										
157.1															
4.9	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Auger refusal at 4.9 mbgs. 3) Water level Reading: Date: Water Level (mbgl):														

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810260.042 E 598322.459

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/01/2021
 REF. NO.: 19-323-100
 ENCL NO.: 4

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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	PID (ppm)						
159.5														
0.0 159.2	TOPSOIL: 280mm													
0.3	CLAYEY SILT: Brown to red, dry to moist, green mottling		1	SS	3									
1			2	SS	18									
158.0	CLAYEY SILT TILL : Brown to red, green mottling, trace oxidation, dry to moist		3	SS	29									
1.5			4	SS	43									
2			5	SS	50/ 480mm									
3	Some cobbles, moist to wet at 3 m													
155.8	SHALE BEDROCK: Queenston Formation, weathered, reddish brown													
3.7														
154.8														
4.7	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Jan 24, 2023 Water Level (mbgl): 3.57													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809978.197 E 598416.255

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/25/2021
 REF. NO.: 19-323-100
 ENCL NO.: 5

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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	GROUND WATER CONDITIONS	ELEVATION						
156.7	TOPSOIL: 150mm												
156.6	CLAYEY SILT: Brown to red, trace organics, dry to moist		1	SS	7								
155.9	CLAYEY SILT TILL: Brown to red, green and white mottling, dry to moist		2	SS	25								
			3	SS	31								
			4	SS	47								
	Brown, trace cobbles at 3 m		5	SS	43								
			6	SS	3								
	Grey at 5 m												
150.6	SILTY CLAY TILL: Grey, trace cobbles, dry to moist		7	SS	21								
			8	SS	50/ 300mm								
148.5													
8.2	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Water Level (mbgl):												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

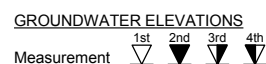
GRAPH NOTES + 3, × 3: Numbers refer to Sensitivity ○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/25/2021
BH LOCATION: See Figure 5 N 4809723.542 E 598696.743	REF. NO.: 19-323-100
	ENCL NO.: 6

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W _p			
152.6	TOPSOIL: 50mm												
150.9	CLAYEY SILT: Brown to red, trace organics, wet		1	SS	3								
151.8	CLAYEY SILT TILL: Brown to red, green and white mottling, trace cobbles, moist		2	SS	27								
151.0	Wet at 1.5 m		3	SS	25								
150.0			4	SS	39								
149.0			5	SS	41								
148.0	SILTY CLAY TILL TO CLAYEY SILT TILL: Grey, trace cobbles, dry to moist		6	SS	29								
147.0	Trace oxidation at 6.1 m		7	SS	19								
145.0	SILTY CLAY TILL: Grey, trace cobbles, dry to moist		8	SS	80								
144.4	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Water Level (mbgl):												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY GPJ_DS.GDT 2/22/23



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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810599.539 E 598151.616

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/26/2021
 REF. NO.: 19-323-100
 ENCL NO.: 7

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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	PID (ppm)						
164.3														
164.0	TOPSOIL: 150mm													
0.2	CLAYEY SILT: Brown, wet, trace cobbles, trace organics, trace oxidation		1	SS	5									Metals & ORPs, PAHs
163.5	CLAYEY SILT TILL: Brown, green mottling, trace cobbles, dry to moist		2	SS	26									PHCs, VOCs, DUP05(PHCs)
0.8			3	SS	23									
			4	SS	34									
	Brown to red, trace oxidation at 2.3 m		5	SS	43									
			6	SS	50/ 430mm									
159.7	SHALE BEDROCK: Queenston Formation, weathered, red													
4.6														
159.1														
5.2	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water level Reading: Date: Mar 9, 2021 Water Level (mbgs): 3.11													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4810583.23 E 598163.837	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/26/2021 REF. NO.: 19-323-100 ENCL NO.: 8
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
164.8	TOPSOIL: 180mm															
164.6 0.2	CLAYEY SILT: Brown, moist		1	SS	8										PAHs	
164.0 0.8	CLAYEY SILT TILL: Brown, green and red mottling, trace cobbles, dry to moist		2	SS	27										Metals & ORPs	
			3	SS	24											
	Trace oxidation at 2.3 m		4	SS	48											
			5	SS	51										PHCs	
160.0 4.8	SHALE BEDROCK: Queenston Formation, weathered, red		6	SS	50/ 380mm										VOCs	
159.6 5.2	END OF BOREHOLE:															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809786.472 E 598802.835	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/24/2021 REF. NO.: 19-323-100 ENCL NO.: 9
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)						
153.9	ASPHALT: 76mm	[Cross-hatched pattern]													
150.0	FILL: sandy silt, sand and gravel, trace asphalt, trace cobbles, black to red, dry to moist	[Diagonal lines pattern]	1	SS											Metals & ORPs
153.1	CLAYEY SILT TILL :Brown to red, green and red mottling, trace cobbles, dry to moist	[Dotted pattern]	2	SS											PHCs, VOCs
151.8			3	SS											pH
2.1	END OF BOREHOLE														

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809786.312 E 598803.116	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)						
153.8 0.0	FILL: sand and gravel, trace asphalt, trace cobbles, trace organics, brown, moist		1	SS			153								
153.0 0.8	CLAYEY SILT TILL: Silt to clayey silt till, brown to red, green and red mottling, trace cobbles, moist		2	SS			153								PHCs DUP02 (PHCs)
151.7 2.1	END OF BOREHOLE		3	SS			152								

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809786.751 E 598804.369	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)						
153.7 0.0	FILL: sand and gravel, trace asphalt, trace cobbles, trace organics, brown, moist		1	SS			153								
152.9 0.8	CLAYEY SILT TILL : Silt to clayey silt till, brown to red, green and red mottling, trace cobbles, moist		2	SS			152								
151.6 2.1	END OF BOREHOLE		3	SS											

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809787.153 E 598802.504	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)						
153.8 0.0	FILL: sand and gravel, trace asphalt, trace cobbles, trace organics, brown, moist		1	SS			153	~25	~25						
153.0 0.8	CLAYEY SILT TILL: Silt to clayey silt till, brown to red, green and red mottling, trace cobbles, moist		2	SS			153	~25	~25						
151.7 2.1			3	SS			152	~25	~25						
2.1			END OF BOREHOLE												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809785.71 E 598803.469

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Apr/06/2021
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)							WATER CONTENT (%)
153.7	FILL: sand and gravel, trace asphalt, trace cobbles, trace organics, brown, moist CLAYEY SILT TILL : Silt to clayey silt till, brown to red, green and red mottling, trace cobbles, moist		1	SS												
152.9			2	SS												
151.6			3	SS												
2.1	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3: Numbers refer to Sensitivity

○ = 3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809785.573 E 598802.062

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Apr/06/2021
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)							WATER CONTENT (%)
153.8	FILL: sand and gravel, trace asphalt, trace cobbles, trace organics, brown, moist CLAYEY SILT TILL : Silt to clayey silt till, brown to red, green and red mottling, trace cobbles, moist		1	SS												
153.0			2	SS												
151.7			3	SS												
2.1	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3 : Numbers refer to Sensitivity

○ 3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809820.793 E 598807.547

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/24/2021
 REF. NO.: 19-323-100
 ENCL NO.: 10

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
154.2	0.0	TOPSOIL: 280mm														
153.9	0.3	FILL: some clay, sand and gravel, trace cobbles, black to brown, dry to moist	1	SS												Metals & ORPs
153.4	0.8	CLAYEY SILT TILL : Brown to red, green, white and red mottling, dry to moist	2	SS												
			3	SS												
152.1	2.1	END OF BOREHOLE														

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3: Numbers refer to Sensitivity

○ = 3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809820.698 E 598807.141

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Apr/06/2021
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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			PID (ppm)	CGD (ppm)						
154.1 0.0	TOPSOIL: 180mm														
153.9 0.2	FILL: some clay, sand and gravel, trace cobbles, black to brown, dry to moist CLAYEY SILT TILL :Brown to red, green, white and red mottling, dry to moist		1	SS											Metals
153.8 0.3															
152.6 1.5	END OF BOREHOLE														

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809821.748 E 598807.104	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p				W
154.0	0.0	TOPSOIL: 230mm												
153.8	0.3	FILL: some clay, sand and gravel, trace cobbles, reddish brown to brown, dry to moist CLAYEY SILT TILL :Brown to red, green, white and red mottling, trace oxidations, dry to moist	1	SS										Metals
152.5	1.5		2	SS										
152.5	1.5	END OF BOREHOLE												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809824.155 E 598806.272

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Apr/06/2021
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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	PID (ppm)						
154.0														
0.0	TOPSOIL: 180mm					154								
153.9														
0.2	FILL: some clay, sand and gravel, trace cobbles, black to brown, dry to moist		1	SS										Metals
153.4														
0.6	END OF BOREHOLE													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809817.466 E 598807.115	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE		SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID LIMIT MOISTURE LIMIT CONTENT W _P W W _L			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	WATER CONTENT (%)					GR SA SI CL	
154.2	0.0							10 20 30 40	10 20 30 40							
	TOPSOIL: 180mm															
	154.0						154									
	0.2		1	SS				10 20 30 40	10 20 30 40							Metals
	153.6															
	0.6															
	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809819.75 E 598809.12	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Apr/06/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
154.1 0.0	TOPSOIL: 200mm															
153.9 0.2	FILL: some clay, sand and gravel, trace cobbles, trace concrete, brown, dry to moist CLAYEY SILT TILL: Brown to red, green, white and red mottling, dry to moist		1	SS											Metals	
153.8 0.3			2	SS												
152.6 1.5	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809818.849 E 598811.025

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Apr/06/2021
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)						
154.1	TOPSOIL: 100mm													
154.0							154							
0.1	Clayey Silt Till: sand, trace gravel, trace cobble,reddish brown to brown, moist		1	SS										Metals
153.5														
0.6	END OF BOREHOLE													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809829.672 E 598797.314

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/25/2021
 REF. NO.: 19-323-100
 ENCL NO.: 11

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)							
154.1	0.0	TOPSOIL: 150mm															
154.0	0.2	CLAYEY SILT TILL :Brown, green, white and red mottling, dry to moist	1	SS			154								Metals & ORPs		
	1		2	SS			153								PHCs, DUP04(PHCs)		
	2		3	SS													
152.0	2.1	END OF BOREHOLE															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809801.827 E 598789.908	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/24/2021 REF. NO.: 19-323-100 ENCL NO.: 12
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
153.9 0.0	TOPSOIL: 180mm															
153.7 0.2	FILL: sandy silt, trace cobbles, black to brown, dry to moist		1	SS											Metals & ORPs	
153.1 0.8	CLAYEY SILT TILL : Brown, green, white and red mottling, dry to moist		2	SS											VOCs, DUP03(VOCs)	
151.8 2.1	END OF BOREHOLE		3	SS												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+³, ×³: Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809642.782 E 598752.691

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/24/2021
 REF. NO.: 19-323-100
 ENCL NO.: 13

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
152.1	TOPSOIL: 63mm														GR SA SI CL	
150.9	CLAYEY SILT TILL: Brown, trace cobbles, green mottling, dry to moist		1	SS	10										Metals & ORPs	
1	Moist at 0.8 m		2	SS	23										PAHs	
2	Some sand seams, moist to wet at 1.5 m		3	SS	34										PHCs, DUP01(PHCs)	
3			4	SS	40										VOCs, DUP02(VOCs)	
3	Wet at 3 m		5	SS	42											
4																
4																
4																
4.6	CLAYEY SILT TILL TO SILTY CLAY TILL: Grey, trace cobbles, trace oxidation, moist		6	SS	40											
5																
6																
6																
6.7	END OF BOREHOLE:		7	SS	36											

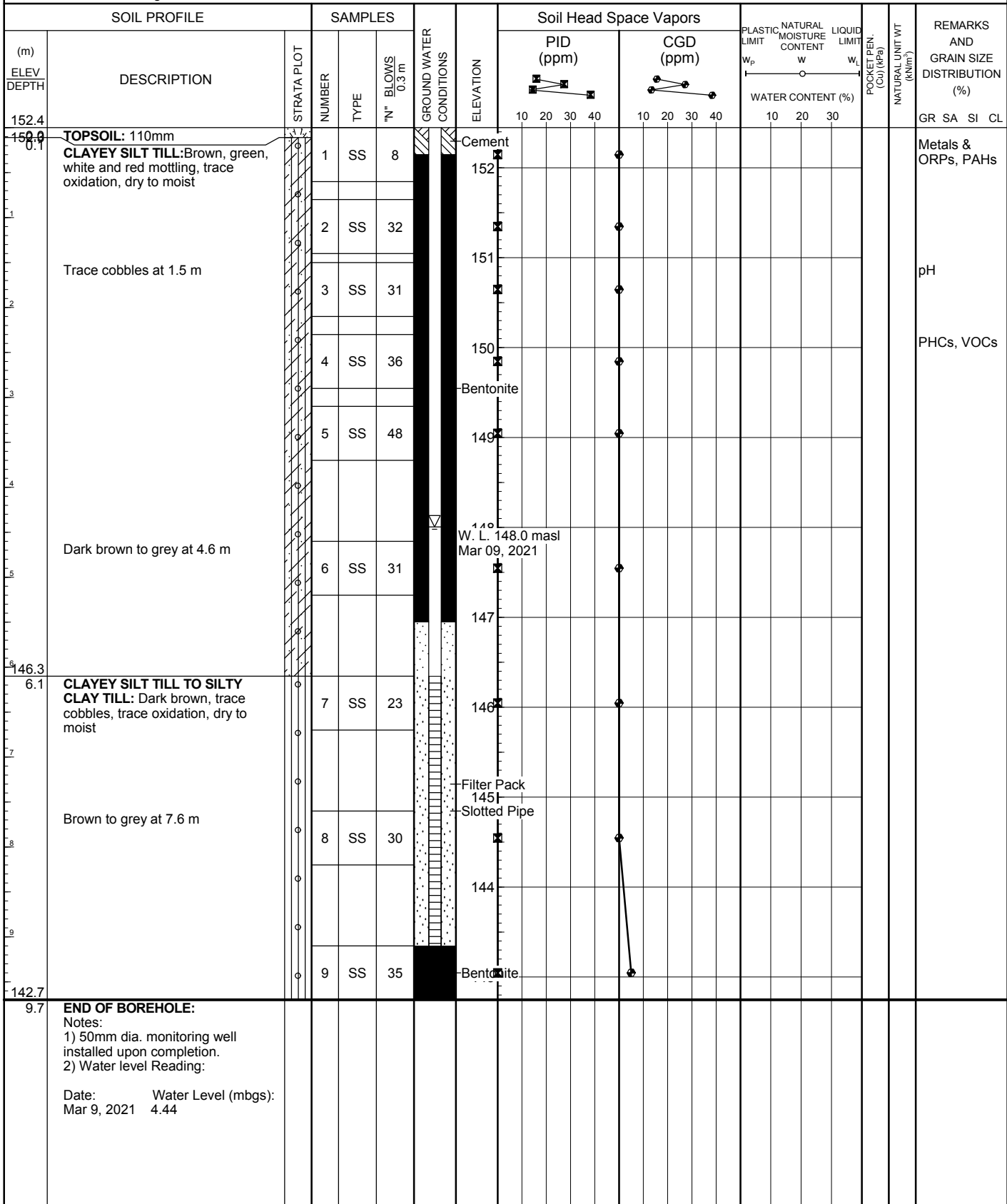
DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/24/2021
BH LOCATION: See Figure 5 N 4809653.492 E 598738.306	REF. NO.: 19-323-100
	ENCL NO.: 14



DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809656.522 E 598767.462	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/25/2021 REF. NO.: 19-323-100 ENCL NO.: 15
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SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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	PID (ppm)						
152.2	TOPSOIL: 100mm													
152.9	CLAYEY SILT TILL: Brown, red and white mottling, trace organics, dry to moist		1	SS		152								Metals, OCPs
0.1														
151.6	END OF BOREHOLE:													
0.6														

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4809681.517 E 598749.742

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Feb/25/2021
 REF. NO.: 19-323-100
 ENCL NO.: 16

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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	PID (ppm)						
153.1														
0.0	TOPSOIL: 130mm													
153.0						153								
0.1	CLAYEY SILT TILL: Brown, red and white mottling, trace organics, dry to moist		1	SS										Metals, OCPs DUP06 (OCPs)
152.5														
0.6	END OF BOREHOLE:													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809686.092 E 598765.307	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/25/2021 REF. NO.: 19-323-100 ENCL NO.: 17
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SOIL PROFILE		SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)					
							LIMIT	MOISTURE CONTENT	LIMIT								
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p	W	W _L	WATER CONTENT (%)	GR	SA	SI	CL
153.0	TOPSOIL: 150mm																
0.0																	
152.9																	
0.2	CLAYEY SILT TILL: Brown, red and white mottling, some clay, dry to moist		1	SS													Metals, OCPs
152.4																	
0.6	END OF BOREHOLE:																

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/25/2021
BH LOCATION: See Figure 5 N 4809688.039 E 598786.075	REF. NO.: 19-323-100
	ENCL NO.: 18

SOIL PROFILE		SAMPLES				Soil Head Space Vapors		PLASTIC NATURAL LIQUID			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)				
								LIMIT	MOISTURE CONTENT	LIMIT							
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p	W	W _L	WATER CONTENT (%)	GR	SA	SI	CL
152.7																	
0.0	TOPSOIL: 130mm																
152.6																	
0.1	CLAYEY SILT TILL: Brown, trace organics, dry to moist		1	SS													Metals, OCPs
152.1																	
0.6	END OF BOREHOLE:																

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4809701.688 E 598779.309	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/25/2021 REF. NO.: 19-323-100 ENCL NO.: 19
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SOIL PROFILE		SAMPLES				Soil Head Space Vapors		WATER CONTENT (%)			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
								PLASTIC LIMIT (W _p)	NATURAL MOISTURE CONTENT (W)	LIQUID LIMIT (W _L)			
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)				GR SA SI CL
152.9													
0.0	TOPSOIL: 130mm												
152.8													
0.1	CLAYEY SILT TILL: Brown, dry to moist		1	SS									Metals, OCPs
152.3													
0.6	END OF BOREHOLE:												

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4810644.51 E 598104.002

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/01/2021
 REF. NO.: 19-323-100
 ENCL NO.: 20

SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		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 (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)						
163.9 0.0	TOPSOIL: 180mm													GR SA SI CL
163.7 0.2	CLAYEY SILT: Brown, trace oxidation, red and green mottling, moist		1	SS										Metals, OCPs
163.3 0.6	END OF BOREHOLE:													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS

Measurement

GRAPH NOTES

+³, ×³: Numbers refer to Sensitivity

○ = 3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/25/2021
BH LOCATION: See Figure 5 N 4809978.211 E 598417.677	REF. NO.: 19-323-100
	ENCL NO.: 21

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p	W	W _L				GR SA SI CL
156.7 0.0	TOPSOIL: 150mm															GR SA SI CL
156.5 0.2	CLAYEY SILT: Brown to red, trace organics, dry to moist		1	SS												Metals, OCPs
156.1 0.6	END OF BOREHOLE:															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street DATUM: Geodetic BH LOCATION: See Figure 5 N 4810216.425 E 598586.818	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Feb/25/2021 REF. NO.: 19-323-100 ENCL NO.: 22
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SOIL PROFILE			SAMPLES			Soil Head Space Vapors			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)						
157.2 0.0	TOPSOIL: 230mm													
157.0 0.2	SILTY CLAY TO CLAYEY SILT: Brown, moist to wet		1	SS			157							Metals, OCPs
156.6 0.6	END OF BOREHOLE:													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement

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



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/26/2021
BH LOCATION: See Figure 5 N 4810324.443 E 598222.197	REF. NO.: 19-323-100
	ENCL NO.: 23

SOIL PROFILE		SAMPLES				Soil Head Space Vapors		WATER CONTENT (%)			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
								PLASTIC LIMIT (W _p)	NATURAL MOISTURE CONTENT (W)	LIQUID LIMIT (W _L)				GR
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)					
160.6														
160.4	TOPSOIL: 180mm													
0.2	CLAYEY SILT: Brown to red, moist		1	SS										Metals, OCPs
160.0														
0.6	END OF BOREHOLE:													

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement

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



PROJECT: Phase Two Environmental Site Assessment	DRILLING DATA
CLIENT: ARGO Development Corporation	Method: Solid Stem Auger
PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas Street	Diameter: 150mm
DATUM: Geodetic	Date: Feb/25/2021
BH LOCATION: See Figure 5 N 4809939.377 E 598654.976	REF. NO.: 19-323-100
	ENCL NO.: 24

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC LIMIT NATURAL MOISTURE CONTENT LIQUID LIMIT			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p	W	W _L				GR SA SI CL
155.0																
154.9	TOPSOIL: 80mm															
0.1	CLAYEY SILT TILL: Brown, dry to moist		1	SS												Metals, OCPs
154.4																
0.6	END OF BOREHOLE:															

DS ENVIRO 0-50 PPM-2021 19-323-100 PALERMO VILLAGE-ENV - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4810596.32 E 597858.69	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/28/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
163.9																
163.0	TOPSOIL: 250mm		1	SS	10											
0.3	FILL: clayey silt, trace topoil, trace rootlets, trace organics, reddish brown, moist, stiff		2	SS	28											
163.0			3	SS	32											
0.9	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobbles/boulders, reddish brown, moist, very stiff to hard grey below 2.3m		4	SS	46											
			5	SS	49											
159.3			6	SS	50/25mm											
4.6	SHALE BEDROCK: reddish brown, weathered		7	SS	30/25mm											
158.5																
5.4	END OF BOREHOLE: Notes: 1) Wet spoon at 5.0m 2) Auger refusal at 5.3m															

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4810713.64 E 597985.59	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/25/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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	GROUND WATER CONDITIONS	ELEVATION						
165.6 0.0	TOPSOIL: 250mm												
165.4 0.3	FILL: clayey silt, trace topsoil, trace organics, trace gravel, brown, moist, firm		1	SS	7		165						
164.7 1.0	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobbles, boulders, brown, moist, very stiff to hard		2	SS	28		165						
			3	SS	39		164						
			4	SS	32		163						
			5	SS	27		162						3 24 48 25
			6	SS	50/ 130mm		161						
160.3 5.3	SHALE BEDROCK: reddish brown, weathered		7	SS	50/ 130mm		161						
	END OF BOREHOLE: Notes: 1) Auger refusal at 5.3m. 2) 50mm dia. monitoring well installed upon completion. 3) Water Level Readings: Date: Water Level(mbgl): June 30, 2022 2.07												

W. L. 163.5 masl
Jun 30, 2022

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY.GPJ.DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4810492.34 E 597903.8

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/28/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
159.2																
0.0	TOPSOIL: 200mm															
159.0																
0.2	FILL: clayey silt, some organics, brown, moist, firm		1	SS	5											
158.5																
0.7	SILTY CLAY TILL: trace sand, trace gravel, reddish brown, moist, very stiff															
158.3																
1																
0.9	CLAYEY SILT TILL/SHALE COMPLEX: trace sand, trace gravel, reddish brown to grey, moist, hard		2	SS	83											
157.7																
1.5	SHALE BEDROCK: reddish brown, weathered		3	SS	50/ 100mm											
	grey below 2.3m		4	SS	50/ 50mm											
156.0																
3.2	END OF BOREHOLE: Notes: 1) Auger grinding at 1.0m. 2) Wet spoon at 1.5m. 3) Auger refusal at 3.2m		5	SS	50/ 25mm											

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4810595.18 E 598000.82

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/28/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
164.5																
164.0	TOPSOIL: 280mm		1	SS	13											
163.8	FILL: clayey silt, trace gravel, trace topsoil, brown, moist, stiff		2	SS	28											
163.7	SILTY CLAY TILL: trace to some sand, trace gravel, brown, moist, very stiff to hard		3	SS	30											
163.0	reddish brown at 2.3m		4	SS	44											
162.0			5	SS	46											
161.0																
159.9																
159.9	CLAYEY SILT TILL/SHALE COMPLEX: trace sand, trace gravel, reddish brown, moist, hard		6	SS	50/ 30mm											
158.4																
156.3	SHALE BEDROCK: reddish brown, weathered		7	SS	50/ 25mm											
156.3	END OF BOREHOLE: Notes: 1) No water in borehole upon completion.															

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3 , × 3 : Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4810706.44 E 598112.42	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/25/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE		SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			POCKET PEN. (Cp) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
							PID (ppm)	CGD (ppm)	WATER CONTENT (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m							
164.9											GR SA SI CL	
164.0	TOPSOIL: 250mm		1	SS	14							
164.2	FILL: clayey silt, trace gravel, trace topsoil, trace rootlets, brown, moist, stiff		2	SS	30							
164.7	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble/boulders, brown, moist, very stiff to hard		3	SS	29							
	reddish brown below 3.1m		4	SS	36							
			5	SS	36							
160.1	shale pieces below 4.6m		6	SS	50/							
4.8	END OF BOREHOLE: Notes: 1) Augar refusal at 4.8m possible shale bedrock.		7	SS	25mm Augar refusal							

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4810542.08 E 598081.88	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/25/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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	GROUND WATER CONDITIONS	ELEVATION						
163.0 0.0	TOPSOIL: 200mm												
162.8 0.2	FILL: clayey silt, trace topsoil/rootlets, trace gravel, brown, moist, firm		1	SS	5								
162.2 0.8	SILTY CLAY TILL : some sand to sandy, trace gravel, occasional cobbles/boulders, brown, moist, very stiff to hard		2	SS	22		W. L. 162.2 masl Jun 30, 2022						
			3	SS	34								
	boulders, cobbles at 2.3m		4	SS	45								7 25 45 23
159.9 3.1	CLAYEY SILT TILL/SHALE COMPLEX: trace sand, trace gravel, reddish brown, moist, hard		5	SS	50/ 130mm								
158.6 4.4	SHALE BEDROCK: reddish brown, weathered		6	SS	50/ 25mm								
158.4 4.6	END OF BOREHOLE: Notes: 1) Augar refusal at 4.6m. 2) 50mm dia. monitoring well installed upon completion. 3) Water Level Readings: Date: Water Level(mbg!): June 30, 2022 0.77												

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY GPJ_DS_GDT_2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4810057.46 E 598140.22

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: Mar/24/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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 (%)			
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION							PID (ppm)	CGD (ppm)	WATER CONTENT (%)
157.6	TOPSOIL: 200mm		1	SS	3											
157.0	FILL: clayey silt, trace organics, trace rootlets, trace gravel, brown, moist, soft		2	SS	25											
156.8	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble/boulders, brown, moist, very stiff to hard		3	SS	32											
			4	SS	45											
			5	SS	43											
		grey below 4.6m		6	SS	23							4	24	45	27
		trace shale pieces at 6.1m		7	SS	33										
150.0	CLAYEY SILT TILL/SHALE COMPLEX: trace sand, trace gravel, reddish brown, moist, hard		8	SS	50/ 100mm											
148.7	SHALE BEDROCK: reddish brown, weathered		9	SS	50/ 25mm											
148.6	END OF BOREHOLE: Notes: 1) Auger refusal at 9.1m. 2) 50mm dia, monitoring well installed upon completion. 3) Water Level Readings: Date: Water Level(mbg): June 30, 2022 5.77															

W. L. 151.8 masl
Jun 30, 2022

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4810122.85 E 598199.38	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/24/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
159.3	TOPSOIL: 200mm		1	SS	8											
159.0	FILL: clayey silt, trace cobbles,															
158.5	trace topsoil, brown, moist, stiff		2	SS	26											
158.0	SILTY CLAY TILL: some sand to		3	SS	30											
157.5	sandy, trace gravel, occasional		4	SS	41											
157.0	cobbles/boulders, brown, moist,															
156.5	very stiff to hard															
156.0	cobbles/boulders at 1.5m															
155.5	greyish brown at 3.1m		5	SS	56											
155.0																
154.5	grey at 4.6m		6	SS	19											
154.0																
153.2	CLAYEY SILT TILL/SHALE		7	SS	50/ 100mm											
153.0	COMPLEX: trace sand, trace															
152.5	gravel, reddish brown, moist, hard															
151.6	END OF BOREHOLE:		8	SS	30/ 25mm										Auger grinding at 7.0m	
7.7	Notes: 1) Water in well at 6.3m.															

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



<p>PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4809917.82 E 598211.74</p>	<p>DRILLING DATA Method: Hollow Stem Auger Diameter: 200mm Date: Mar/24/2022</p> <p style="text-align: right;">REF. NO.: 19-323-100 ENCL NO.:</p>
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SOIL PROFILE	SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
	DESCRIPTION	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)	CGD (ppm)			
156.1 ELEV DEPTH											GR SA SI CL
156.0 0.2	TOPSOIL: 200mm	1	SS	7							
	FILL: clayey silt, trace organics, trace rootlets, trace gravel/cobbles, brown, moist, firm to very stiff	2	SS	22							
154.6 1.5	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble/boulders, brown, moist, very stiff to hard	3	SS	28							
		4	SS	31							
		5	SS	34							
	grey below 4.6m	6	SS	20							
	trace shale pieces at 6.1m	7	SS	18							4 22 45 29
		8	SS	19							
	some sand, reddish grey at 9.1m	9	SS	50							
145.4 10.7	GRAVELLY SAND: silty, trace clay, trace cobbles/boulders, reddish brown, wet, very dense	10	SS	50/ 75mm							26 43 25 6
		11	SS	50/ 30mm							
142.4 13.7	CLAYEY SILT TILL: some sand, trace gravel, reddish brown, moist, hard	12	SS	50/ 100mm							
141.1 14.1	CLAYEY SILT TILL/SHALE	13	SS	30/ 100mm							
146.0 15.3	COMPLEX: trace sand, trace gravel, reddish brown, moist, hard END OF BOREHOLE: Notes: 1) Water at depth of 10.7m during drilling. 2) 50mm dia. monitoring well installed upon completion. 3) Water Level Readings: Date: Water Level(mbgl): June 30, 2022 3.76										

W. L. 152.3 masl
Jun 30, 2022

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GPJ.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4809977.87 E 598312.02

DRILLING DATA
 Method: Solid Stem Auger
 Diameter: 150mm
 Date: Mar/28/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
157.2																
157.0	TOPSOIL: 200mm		1	SS	7											
156.4	FILL: silty clay, trace topsoil/rootlets, trace gravel, brown, moist, firm		2	SS	23											
156.0	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobbles/boulders, brown, moist, very stiff to hard		3	SS	29											
155.0			4	SS	38											
154.0			5	SS	38											
153.0																
152.0	grey below 4.6m		6	SS	25											
151.0			7	SS	30											
149.6																
149.0	SANDY SILT TILL: trace clay, trace gravel, cobbles/boulders, shale pieces, brownish grey, moist, very dense		8	SS	55											
148.2	END OF BOREHOLE: Notes: 1) No water in borehole upon completion.															

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



<p>PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4809940.08 E 598381.62</p>	<p>DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/23/2022</p> <p>REF. NO.: 19-323-100 ENCL NO.:</p>
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
155.3																
156.0	TOPSOIL: 280mm		1	SS	5											
0.3	FILL: clayey silt, some organics, trace topsoil, trace gravel, dark brown, moist, firm		2	SS	27											
154.5			3	SS	34											
0.8	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobbles/boulders, brown, moist, very stiff to hard		4	SS	39											
			5	SS	41											
	grey below 4.6m		6	SS	17										auger grinding 4.6m	
			7	SS	35											
147.7			8	SS	50/ 75mm											
7.6	SANDY SILT TILL: trace clay, trace gravel, trace shale pieces, cobbles/boulders, reddish brown, moist, very dense															
47.2	END OF BOREHOLE: Notes: 1) No water in borehole upon completion.															
8.1																

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



<p>PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4809811.67 E 598344.04</p>	<p>DRILLING DATA Method: Hollow Stem Auger Diameter: 200mm Date: Mar/22/2022</p> <p style="text-align: right;">REF. NO.: 19-323-100 ENCL NO.:</p>
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
154.9	TOPSOIL: 250mm		1	SS	3											
154.6	FILL: clayey silt, trace topsoil/rootlets, trace organics, trace gravel, brown, moist, soft		2	SS	23											
153.9	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble/boulder, brown, moist, very stiff		3	SS	27											
			4	SS	22											
			5	SS	24											
	grey below 4.6m		6	SS	18											
			7	SS	16											
146.7	END OF BOREHOLE:		8	SS	25											

Notes:
 1) No water in borehole upon completion.

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4809896.92 E 598428.94	DRILLING DATA Method: Solid Stem Auger Diameter: 150mm Date: Mar/23/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			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 (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
156.2	TOPSOIL: 210mm		1	SS	6											
156.0	FILL: clayey silt, trace trace topsoil/rootlets, trace organics, trace gravel, brown, moist, firm		2	SS	25											
155.2	CLAYEY SILT TO SILTY CLAY TILL: some sand to sandy, trace gravel, occsaional cobble/boulder, brown, moist, very stiff to hard		3	SS	36											
			4	SS	32											
			5	SS	37											
	grey below 4.6m		6	SS	28											
			7	SS	19											
			8	SS	16											

8.2 **END OF BOREHOLE:**
Notes:
1) No water in borehole upon completion.

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022 -RENUMBERING - COPY.GPJ_DS.GDT 2/22/23

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4809716.21 E 598404.22

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: Mar/21/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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 (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION	PID (ppm)						
153.9													
153.0	TOPSOIL: 200mm		1	SS	4								
153.0	FILL: silty clay, some organics, trace topsoil, trace gravel, brown, moist, firm		2	SS	22								
153.0	SILTY CLAY TILL: sandy, trace gravel, occasional cobbles, brown, moist, stiff to hard		3	SS	26								
			4	SS	30								
			5	SS	30								
	boulders, grey below 4.6m		6	SS	13								
			7	SS	9								
			8	SS	22								
			9	SS	24								
143.2	CLAYEY SILT TILL: trace sand, trace gravel, pieces of shale, brownish grey, moist, hard		10	SS	52								
			11	SS	48								
140.2	SAND AND GRAVEL: trace clay, trace silt, trace cobbles, brown, wet, very dense		12	SS	50/30mm								
138.6	END OF BOREHOLE:		13	SS	30/30mm								
15.3	Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbg): June 30, 2022 1.84												

W. L. 152.1 masl
Jun 30, 2022

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GP.J.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment CLIENT: ARGO Development Corporation PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St DATUM: Geodetic BH LOCATION: See Drawing 1 N 4809804.65 E 598492.79	DRILLING DATA Method: Hollow Stem Auger Diameter: 200mm Date: Mar/18/2022 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE	SAMPLES			GROUND WATER CONDITIONS	Soil Head Space Vapors			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				ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W _P	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	WATER CONTENT (%)	GR
151.7																		
0.0	CLAYEY SILT: trace sand, trace gravel, brown, moist, firm (disturbed)		1	SS	4		151	25	20		15	20						
150.9			2	SS	57		150	25	20		15	20						
0.8	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble/boulders, brown, moist, hard		3	SS	42		149	25	20		15	20						
			4	SS	35		148	25	20		15	20						
			5	SS	35		147	25	20		15	20						
	very stiff, grey at 4.6m		6	SS	26		146	25	20		15	20						
45.6			7	SS	40		145	25	20		15	20						
6.1	SANDY SILT TILL: trace clay, trace gravel, grey, moist, dense		8	SS	50/50mm		144	25	20		15	20						
144.1			9	SS	50/50mm		143	25	20		15	20						
7.6	SILTY SAND: trace clay, trace cobbles, brown, moist, very dense		10	SS	50/75mm		141	25	20		15	20						
141.0			11	SS	50/30mm		139	25	20		15	20						
10.7	SANDY SILT TO SILTY SAND: trace clay, trace gravel, pieces of shale, cobbles/boulders, reddish brown, moist, very dense		12	SS	50/25mm		138	25	20		15	20						
138.0			13	SS	50/30mm		136	25	20		15	20						
13.7	SAND AND GRAVEL: trace silt, trace clay, brown, very moist to wet, very dense																	
136.0																		
15.7	END OF BOREHOLE: Notes: 1) Borehole wet at the bottom upon completion.																	

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GPJ.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4809827.19 E 598570.67

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: Mar/17/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		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 (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION	PID (ppm)						
152.4													GR SA SI CL
150.0	TOPSOIL: 220mm		1	SS	8								
151.6	FILL: silty clay, trace organics, trace topsoil, trace gravel, brown, moist, stiff		2	SS	35								
151.6	SILTY CLAY TILL: some sand, trace gravel, occasional cobble/boulders, brown, moist, very stiff to hard		3	SS	37								
			4	SS	34								2 17 42 39
			5	SS	28								
	grey below 4.6m		6	SS	50/ 75mm								auger grinding at 416m14 39 46
146.1	sandy at 6.1m		7	SS	50/ 30mm								
	SANDY SILT TILL: some clay, some gravel, occasional cobble/boulders, brown, moist, very dense		8	SS	57								13 27 48 12
			9	SS	50/ 100mm								
	CLAYEY SILT TILL: some sand, trace gravel, reddish brown, moist, hard		10	SS	50/ 75mm								
	SAND AND GRAVEL: some silt, pieces of shale, cobbles, reddish brown, wet, very dense		11	SS	50/ 30mm								
	CLAYEY SILT TILL/SHALE COMPLEX: trace sand, trace gravel, reddish brown, moist, hard		12	SS	50/ 25mm								
	SHALE BEDROCK: reddish brown, weathered		13	SS	30/ 25mm								
	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): June 30, 2022 7.31												

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GP.J.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4809647.14 E 598481.21

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: Mar/21/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		WATER CONTENT (%)			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	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W _p			
152.4													
150.0	TOPSOIL: 230mm		1	SS	12		152	25	20				
151.7	FILL: clayey silt, trace organics, trace rootlets, trace gravel, brown, moist, stiff		2	SS	24		151	25	20				
	SILTY CLAY TILL: trace to some sand, trace gravel, brown, moist, very stiff to hard		3	SS	24		151	25	20				
	cobbles and boulders at 2.3m		4	SS	35		150	25	20				
			5	SS	38		149	25	20				
			6	SS	28		148	25	20				
	grey below 6.1m		7	SS	27		146	25	20				
			8	SS	21		144	25	20				3 17 43 37
			9	SS	18		143	25	20				
	brown at 10.7m		10	SS	41		141	25	20				
140.2	SANDY SILT TILL: some clay, some gravel, trace shale pieces, occasional cobble/boulders, brown, moist, very dense		11	SS	50/30mm		140	25	20				14 29 42 15
137.1			12	SS	50/100mm		139	25	20				auger grinding at 13.7m, possible shale bedrock
15.3	END OF BOREHOLE: Notes: 1) 50mm dia. monitoring well installed upon completion. 2) Water Level Readings: Date: Water Level(mbgl): June 30, 2022 dry		13	SS	50/30mm		138	25	20				

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GPJ.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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



PROJECT: Phase Two Environmental Site Assessment
 CLIENT: ARGO Development Corporation
 PROJECT LOCATION: Pt of Lot 31, Con 1, North of Dundas St
 DATUM: Geodetic
 BH LOCATION: See Drawing 1 N 4809711.23 E 598540.79

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: Mar/21/2022
 REF. NO.: 19-323-100
 ENCL NO.:

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	Soil Head Space Vapors			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		ELEVATION	PID (ppm)	CGD (ppm)			
152.9												
150.6	TOPSOIL: 260mm		1	SS	11							
152.1	FILL: silty clay, trace organics, trace topsoil, trace gravel, brown, moist, stiff		2	SS	14							
151.1	SILTY CLAY TILL: some sand to sandy, trace gravel, occasional cobble, brown, moist, stiff to hard		3	SS	29							
150.3			4	SS	31							
149.3			5	SS	25							
149.0	grey below 4.6m		6	SS	29							3 25 48 24
148.8			7	SS	29							
148.5			8	SS	18							
148.2			9	SS	44							
147.8	some sand at 9.1m		10	SS	50/100mm							2 14 42 42
142.2	SILTY SAND TILL: trace clay, some gravel, cobbles/boulders, brown, moist, very dense		11	SS	50/30mm							auger grinding at 10.7m
140.7			12	SS	50/30mm							15 41 36 8
137.6	SAND AND GRAVEL: some clay, trace shale pieces, occasional cobble, reddish brown, wet, very dense		13	SS	50/30mm							
15.3	END OF BOREHOLE: Notes: 1) Water at depth 12.2m during drilling.											

DS ENVIRO 0-50 PPM-2021 19-323-100 GEO COPY-MARCH 24, 2022-RENUMBERING - COPY GP.J.DS.GDT. 2/22/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two ESA CLIENT: ARGO Development Corporation PROJECT LOCATION: 3278 Bronte Road DATUM: Geodetic DRILLING COMPANY:	DRILLING DATA Method: Solid Stem Auger Diameter: 150 mm Date: Jun/14/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS		Soil Head Space Vapors			WATER CONTENT (%)			METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)				
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	ELEVATION	PID (ppm)	CGD (ppm)	PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	GR	SA	SI	CL	
164.6	FILL: Sand and gravel, red, moist		1	SS	36	164												Metals and ORPs
164.0	Silty clay, some gravel, trace sand, moist, brown		2	SS	12	163												PHCs
0.6	CLAYEY SILT: Some gravel, brown, moist		3	SS	22	162.1												PHCs, VOCs
1			4	SS	31	162												
2	Brown and grey, some cobbles		5	SS	41	161												
162.1	CLAYEY SILT TILL: Grey/brown, moist		6	SS	50/3	160.6												
2.4			7	SS	50/4	160												
4.0	TILL: Some red silt, some weathered shale					159.7												
159.7	WEATHERED SHALE: Grey, powder					157.9												
4.9																		
6.7	END OF BOREHOLE: Notes: Date: June 16, 2021 Water level (mbgs): 5.31																	

DS ENVIRO 0-50 PPM-2016 19-323-100 3278 BRONTE.GPJ DS.GDT 7/2/21

GROUNDWATER ELEVATIONS
 Measurement: 1st, 2nd, 3rd, 4th

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

PROJECT: Phase Two ESA CLIENT: ARGO Development Corporation PROJECT LOCATION: 3278 Bronte Road DATUM: Geodetic DRILLING COMPANY:	DRILLING DATA Method: Solid Stem Auger Diameter: 150 mm Date: Jun/14/2021 REF. NO.: 19-323-100 ENCL NO.:
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SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC NATURAL LIQUID			POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (ppm)	W _p				W
165.4	FILL: Sand and silty sand, brown, moist. Some pieces of asphalt at 6"	[Cross-hatch pattern]	1	SS	9		165	25	25					Metals and ORPs, PAHs
164.8	SILTY SAND: Trace oxidation, brown, moist	[Dotted pattern]	2	SS	7		164	25	25					
163.9	CLAYEY SILT: Some gravel, brown to grey, some oxidation, moist	[Diagonal lines]	3	SS	18		163	25	25					
162.9	CLAYEY SILT TILL: Brown, moist	[Horizontal lines]	4	SS	30		162	25	25					
161.1	Trace sand	[Dotted pattern]	5	SS	32		161	25	25					
161.1	Some sand, reddish brown, some moisture	[Dotted pattern]					161	25	25					
161.1	WEATHERED SHALE: Red	[Vertical lines]	6	SS	50/5		160	25	25					PHCs, VOCs
158.7	Reddish brown, powder	[Vertical lines]	7	SS	50/1		159	25	25					

6.7 **END OF BOREHOLE:**
 Notes:
 Date: June 16, 2021
 Water level: Dry

DS ENVIRO 0-50 PPM-2016 19-323-100 3278 BRONTE.GPJ DS.GDT 7/2/21

GROUNDWATER ELEVATIONS
 Measurement: 1st, 2nd, 3rd, 4th

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



Appendix D



FINAL REPORT

CA14248-JUN21 R

19-323-100, 3278 Bronte Road, Oakville

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Brad Moore Hon. B.Sc
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	705-652-2143
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	brad.moore@sgs.com
Project	19-323-100, 3278 Bronte Road, Oakville	SGS Reference	CA14248-JUN21
Order Number		Received	06/15/2021
Samples	Soil (10)	Approved	06/22/2021
		Report Number	CA14248-JUN21 R
		Date Reported	06/22/2021

COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 4 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: NA

SIGNATORIES

Brad Moore Hon. B.Sc

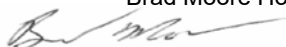


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FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - BTEX (SOIL)

Sample Number	9	10	12	13	15	16	17
Sample Name	BH21B-1 SS3	BH21B-1 SS4	BH21B-2 SS3	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result
BTEX										
Benzene	µg/g	0.02	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number	8	11	14
Sample Name	BH21B-1 SS1	BH21B-2 SS1	BH21B-3 SS1
Sample Matrix	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
Hydrides						
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	6.7	5.5	4.4
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7



FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Sample Number	8	9	10	11	12	13	14	15
Sample Name	BH21B-1 SS1	BH21B-1 SS3	BH21B-1 SS4	BH21B-2 SS1	BH21B-2 SS3	BH21B-2 SS4	BH21B-3 SS1	BH21B-3 SS6
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics											
Moisture Content	%	-		15.2	11.1	14.0	8.6	12.2	9.7	8.4	7.9
Barium	µg/g	0.1	220	140			630			55	
Beryllium	µg/g	0.02	2.5	0.46			0.65			0.39	
Boron	µg/g	1	36	14			21			5	
Cadmium	µg/g	0.02	1.2	0.28			0.11			0.18	
Chromium	µg/g	0.5	70	29			24			14	
Cobalt	µg/g	0.01	21	6.0			11			6.5	
Copper	µg/g	0.1	92	24			21			19	
Lead	µg/g	0.1	120	37			11			21	
Molybdenum	µg/g	0.1	2	1.7			1.1			0.3	
Nickel	µg/g	0.5	82	16			27			13	
Silver	µg/g	0.05	0.5	0.06			< 0.05			< 0.05	
Thallium	µg/g	0.02	1	0.10			0.22			0.10	
Uranium	µg/g	0.002	2.5	0.79			0.92			0.51	
Vanadium	µg/g	3	86	26			30			20	
Zinc	µg/g	0.7	290	110			62			51	
Water Soluble Boron	µg/g	0.5		< 0.5			0.5			< 0.5	



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CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

Sample Number 16 17

Sample Name SDUPB1 SDUPB2

Sample Matrix Soil Soil

Sample Date 14/06/2021 14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Metals and Inorganics					
Moisture Content	%	-		13.3	10.3

PACKAGE: REG153 - Other (ORP) (SOIL)

Sample Number 8 11 14

Sample Name BH21B-1 SS1 BH21B-2 SS1 BH21B-3 SS1

Sample Matrix Soil Soil Soil

Sample Date 14/06/2021 14/06/2021 14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
Other (ORP)						
Mercury	ug/g	0.05	0.27	< 0.05	< 0.05	0.07
Sodium Adsorption Ratio	No unit	0.2	2.4	2.1	3.1	0.7
SAR Calcium	mg/L	0.2		27.7	26.4	34.0
SAR Magnesium	mg/L	0.3		5.1	6.6	1.9
SAR Sodium	mg/L	0.1		46.6	68.5	16.2
Conductivity	mS/cm	0.002	0.57	0.40	0.54	0.24
pH	pH Units	0.05		7.94	7.81	7.79
Chromium VI	µg/g	0.2	0.66	2.7	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: **REG153 - PAHs (SOIL)**

Sample Number	8	11	14
Sample Name	BH21B-1 SS1	BH21B-2 SS1	BH21B-3 SS1
Sample Matrix	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
PAHs						
Acenaphthene	µg/g	0.05	0.072	< 0.05	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.093	< 0.05	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.16	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.36	< 0.05	< 0.05	0.13
Benzo(a)pyrene	µg/g	0.05	0.3	< 0.05	< 0.05	0.10
Benzo(b+j)fluoranthene	µg/g	0.05	0.47	< 0.05	< 0.05	0.14
Benzo(ghi)perylene	µg/g	0.1	0.68	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.48	< 0.05	< 0.05	0.06
Chrysene	µg/g	0.05	2.8	< 0.05	< 0.05	0.12
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	< 0.06	< 0.06	< 0.06
Fluoranthene	µg/g	0.05	0.56	< 0.05	< 0.05	0.25
Fluorene	µg/g	0.05	0.12	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.23	< 0.1	< 0.1	< 0.1
1-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/g	0.05		< 0.05	< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.59	< 0.05	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.09	< 0.05	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	0.69	< 0.05	< 0.05	0.16
Pyrene	µg/g	0.05	1	< 0.05	< 0.05	0.20



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CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	9	12	15
Sample Name	BH21B-1 SS3	BH21B-2 SS3	BH21B-3 SS6
Sample Matrix	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
PHCs						
F1 (C6-C10)	µg/g	10	25	< 10	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10		< 10	< 10	< 10
F2 (C10-C16)	µg/g	10	10	< 10	< 10	< 10
F3 (C16-C34)	µg/g	50	240	< 50	< 50	< 50
F4 (C34-C50)	µg/g	50	120	< 50	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-		YES	YES	YES

PACKAGE: REG153 - SVOC Surrogates (SOIL)

Sample Number	8	11	14
Sample Name	BH21B-1 SS1	BH21B-2 SS1	BH21B-3 SS1
Sample Matrix	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
SVOC Surrogates						
Surr Nitrobenzene-d5	Surr Rec %	-		86	88	91
Surr 2-Fluorobiphenyl	Surr Rec %	-		89	89	94
Surr 4-Terphenyl-d14	Surr Rec %	-		93	99	100
Surr 2-Fluorophenol	Surr Rec %	-		86	85	81
Surr Phenol-d6	Surr Rec %	-		89	87	87
Surr 2,4,6-Tribromophenol	Surr Rec %	-		91	91	94



FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	10	13	15	16	17
Sample Name	BH21B-1 SS4	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
THMs (VOC)								
Bromodichloromethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	10	13	15	16	17
Sample Name	BH21B-1 SS4	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
VOC Surrogates								
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		101	91	97	97	98
Surr 4-Bromofluorobenzene	Surr Rec %	-		94	91	93	94	94
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		96	92	95	95	95

PACKAGE: REG153 - VOCs (SOIL)

Sample Number	10	13	15	16	17
Sample Name	BH21B-1 SS4	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
VOCs								
Acetone	µg/g	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: **REG153 - VOCs (SOIL)**

Sample Number	10	13	15	16	17
Sample Name	BH21B-1 SS4	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
VOCs (continued)								
Chloroform	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
trans-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
n-Hexane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14248-JUN21 R

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road, Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: **REG153 - VOCs (SOIL)**

Sample Number	10	13	15	16	17
Sample Name	BH21B-1 SS4	BH21B-2 SS4	BH21B-3 SS6	SDUPB1	SDUPB2
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	14/06/2021	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
VOCs (continued)								
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1-Trichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	0.25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	µg/g	0.02	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
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BH21B-1 SS1

Chromium VI	EPA218.6/EPA3060A	µg/g	2.7	0.66
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BH21B-2 SS1

Barium	EPA 3050/EPA 200.8	µg/g	630	220
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	3.1	2.4

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

BH21B-1 SS1	EWL0353-JUN21	8	06/14/2021	06/15/2021	06/16/2021	06/17/2021	07/12/2021	06/17/2021
BH21B-2 SS1	EWL0353-JUN21	11	06/14/2021	06/15/2021	06/16/2021	06/17/2021	07/12/2021	06/17/2021
BH21B-3 SS1	EWL0353-JUN21	14	06/14/2021	06/15/2021	06/16/2021	06/17/2021	07/12/2021	06/17/2021

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

BH21B-1 SS1	SKA5059-JUN21	8	06/14/2021	06/15/2021			06/28/2021	06/18/2021
BH21B-2 SS1	SKA5059-JUN21	11	06/14/2021	06/15/2021			06/28/2021	06/18/2021
BH21B-3 SS1	SKA5059-JUN21	14	06/14/2021	06/15/2021			06/28/2021	06/18/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

BH21B-1 SS1	SKA5071-JUN21	8	06/14/2021	06/15/2021	06/21/2021	06/21/2021	07/14/2021	06/22/2021
BH21B-2 SS1	SKA5071-JUN21	11	06/14/2021	06/15/2021	06/21/2021	06/21/2021	07/14/2021	06/22/2021
BH21B-3 SS1	SKA5071-JUN21	14	06/14/2021	06/15/2021	06/21/2021	06/21/2021	07/14/2021	06/22/2021

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

BH21B-1 SS1	EMS0111-JUN21	8	06/14/2021	06/15/2021	06/17/2021	06/17/2021	07/12/2021	06/18/2021
BH21B-2 SS1	EMS0111-JUN21	11	06/14/2021	06/15/2021	06/17/2021	06/17/2021	07/12/2021	06/18/2021
BH21B-3 SS1	EMS0111-JUN21	14	06/14/2021	06/15/2021	06/17/2021	06/17/2021	07/12/2021	06/18/2021

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

BH21B-1 SS1	ESG0055-JUN21	8	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/17/2021
BH21B-2 SS1	ESG0055-JUN21	11	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/17/2021
BH21B-3 SS1	ESG0055-JUN21	14	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/17/2021

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21B-1 SS1	EMS0111-JUN21	8	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/18/2021
BH21B-2 SS1	EMS0111-JUN21	11	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/18/2021
BH21B-3 SS1	EMS0111-JUN21	14	06/14/2021	06/15/2021	06/17/2021	06/17/2021	12/11/2021	06/18/2021

Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-1 SS1	GCM0296-JUN21	8	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-1 SS3	GCM0296-JUN21	9	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-1 SS4	GCM0296-JUN21	10	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-2 SS1	GCM0296-JUN21	11	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-2 SS3	GCM0296-JUN21	12	06/14/2021	06/15/2021			08/13/2021	06/17/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Moisture (continued)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-2 SS4	GCM0296-JUN21	13	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-3 SS1	GCM0296-JUN21	14	06/14/2021	06/15/2021			08/13/2021	06/17/2021
BH21B-3 SS6	GCM0296-JUN21	15	06/14/2021	06/15/2021			08/13/2021	06/17/2021
SDUPB1	GCM0296-JUN21	16	06/14/2021	06/15/2021			08/13/2021	06/17/2021
SDUPB2	GCM0296-JUN21	17	06/14/2021	06/15/2021			08/13/2021	06/17/2021

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-1 SS3	GCM0289-JUN21	9	06/14/2021	06/15/2021			06/28/2021	06/18/2021
BH21B-2 SS3	GCM0289-JUN21	12	06/14/2021	06/15/2021			06/28/2021	06/18/2021
BH21B-3 SS6	GCM0289-JUN21	15	06/14/2021	06/15/2021			06/28/2021	06/18/2021

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-1 SS3	GCM0331-JUN21	9	06/14/2021	06/15/2021			07/24/2021	06/22/2021
BH21B-2 SS3	GCM0331-JUN21	12	06/14/2021	06/15/2021			07/24/2021	06/22/2021
BH21B-3 SS6	GCM0331-JUN21	15	06/14/2021	06/15/2021			06/28/2021	06/22/2021

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

BH21B-1 SS1	ARD0098-JUN21	8	06/14/2021	06/15/2021	06/16/2021	06/16/2021	07/14/2021	06/16/2021
BH21B-2 SS1	ARD0098-JUN21	11	06/14/2021	06/15/2021	06/16/2021	06/16/2021	07/14/2021	06/16/2021
BH21B-3 SS1	ARD0098-JUN21	14	06/14/2021	06/15/2021	06/16/2021	06/16/2021	07/14/2021	06/16/2021

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

BH21B-1 SS1	GCM0351-JUN21	8	06/14/2021	06/15/2021	06/21/2021	06/21/2021	06/28/2021	06/22/2021
BH21B-2 SS1	GCM0351-JUN21	11	06/14/2021	06/15/2021	06/21/2021	06/21/2021	06/28/2021	06/22/2021
BH21B-3 SS1	GCM0351-JUN21	14	06/14/2021	06/15/2021	06/21/2021	06/21/2021	06/28/2021	06/22/2021

Sodium adsorption ratio (SAR)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]ARD-LAK-AN-021

BH21B-1 SS1		8	06/14/2021	06/15/2021	06/17/2021	-	12/11/2021	06/17/2021
BH21B-2 SS1		11	06/14/2021	06/15/2021	06/17/2021	-	12/11/2021	06/17/2021
BH21B-3 SS1		14	06/14/2021	06/15/2021	06/17/2021	-	12/11/2021	06/17/2021

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

BH21B-1 SS3	GCM0288-JUN21	9	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021
BH21B-1 SS4	GCM0288-JUN21	10	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021
BH21B-2 SS3	GCM0288-JUN21	12	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

BH21B-2 SS4	GCM0288-JUN21	13	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021
BH21B-3 SS6	GCM0288-JUN21	15	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021
SDUPB1	GCM0288-JUN21	16	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021
SDUPB2	GCM0288-JUN21	17	06/14/2021	06/15/2021	06/16/2021	06/16/2021	06/28/2021	06/18/2021

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

BH21B-1 SS1	ESG0050-JUN21	8	06/14/2021	06/15/2021	06/16/2021	06/16/2021	12/11/2021	06/16/2021
BH21B-2 SS1	ESG0050-JUN21	11	06/14/2021	06/15/2021	06/16/2021	06/16/2021	12/11/2021	06/16/2021
BH21B-3 SS1	ESG0050-JUN21	14	06/14/2021	06/15/2021	06/16/2021	06/16/2021	12/11/2021	06/16/2021



FINAL REPORT

CA14248-JUN21 R

QC SUMMARY

Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0353-JUN21	mS/cm	0.002	<0.002	6	10	99	90	110	NA		

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5059-JUN21	µg/g	0.05	<0.05	ND	20	113	80	120	94	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5071-JUN21	ug/g	0.2	<0.2	ND	20	117	80	120	106	75	125



FINAL REPORT

CA14248-JUN21 R

QC SUMMARY

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0111-JUN21	ug/g	0.05	<0.05	0	20	95	80	120	93	70	130

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0055-JUN21	mg/L	0.2	<0.09	15	20	100	80	120	99	70	130
SAR Magnesium	ESG0055-JUN21	mg/L	0.3	<0.02	10	20	98	80	120	100	70	130
SAR Sodium	ESG0055-JUN21	mg/L	0.1	<0.15	2	20	105	80	120	124	70	130



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QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0111-JUN21	ug/g	0.05	<0.05	ND	20	101	70	130	97	70	130
Arsenic	EMS0111-JUN21	µg/g	0.5	<0.5	2	20	100	70	130	96	70	130
Barium	EMS0111-JUN21	ug/g	0.1	<0.1	2	20	109	70	130	98	70	130
Beryllium	EMS0111-JUN21	µg/g	0.02	<0.02	3	20	93	70	130	92	70	130
Boron	EMS0111-JUN21	µg/g	1	<1	8	20	108	70	130	98	70	130
Cadmium	EMS0111-JUN21	µg/g	0.02	<0.02	19	20	104	70	130	96	70	130
Cobalt	EMS0111-JUN21	µg/g	0.01	<0.01	5	20	104	70	130	101	70	130
Chromium	EMS0111-JUN21	µg/g	0.5	<0.5	3	20	103	70	130	99	70	130
Copper	EMS0111-JUN21	µg/g	0.1	<0.1	7	20	103	70	130	97	70	130
Molybdenum	EMS0111-JUN21	µg/g	0.1	<0.1	11	20	95	70	130	97	70	130
Nickel	EMS0111-JUN21	ug/g	0.5	<0.5	1	20	103	70	130	100	70	130
Lead	EMS0111-JUN21	µg/g	0.1	<0.1	3	20	101	70	130	95	70	130
Antimony	EMS0111-JUN21	µg/g	0.8	<0.8	ND	20	98	70	130	75	70	130
Selenium	EMS0111-JUN21	µg/g	0.7	<0.7	ND	20	97	70	130	94	70	130
Thallium	EMS0111-JUN21	µg/g	0.02	<0.02	5	20	103	70	130	91	70	130
Uranium	EMS0111-JUN21	µg/g	0.002	<0.002	2	20	101	70	130	98	70	130
Vanadium	EMS0111-JUN21	µg/g	3	<3	3	20	102	70	130	99	70	130
Zinc	EMS0111-JUN21	µg/g	0.7	<0.7	6	20	97	70	130	93	70	130



FINAL REPORT

CA14248-JUN21 R

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0289-JUN21	µg/g	10	<10	ND	30	92	80	120	89	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0331-JUN21	µg/g	10	<10	ND	30	92	80	120	95	60	140
F3 (C16-C34)	GCM0331-JUN21	µg/g	50	<50	ND	30	92	80	120	95	60	140
F4 (C34-C50)	GCM0331-JUN21	µg/g	50	<50	ND	30	92	80	120	95	60	140



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CA14248-JUN21 R

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0098-JUN21	pH Units	0.05		0	20	100	80	120			

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	94	50	140	96	50	140
2-Methylnaphthalene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	89	50	140	92	50	140
Acenaphthene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	99	50	140	100	50	140
Acenaphthylene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	96	50	140	99	50	140
Anthracene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	95	50	140	97	50	140
Benzo(a)anthracene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	97	50	140	101	50	140
Benzo(a)pyrene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	91	50	140	97	50	140
Benzo(b+j)fluoranthene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	90	50	140	99	50	140
Benzo(ghi)perylene	GCM0351-JUN21	µg/g	0.1	< 0.1	ND	40	96	50	140	98	50	140
Benzo(k)fluoranthene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	97	50	140	96	50	140
Chrysene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	96	50	140	100	50	140
Dibenzo(a,h)anthracene	GCM0351-JUN21	µg/g	0.06	< 0.06	ND	40	97	50	140	103	50	140
Fluoranthene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	100	50	140	102	50	140
Fluorene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	96	50	140	98	50	140
Indeno(1,2,3-cd)pyrene	GCM0351-JUN21	µg/g	0.1	< 0.1	ND	40	97	50	140	102	50	140
Naphthalene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	93	50	140	95	50	140
Phenanthrene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	97	50	140	97	50	140
Pyrene	GCM0351-JUN21	µg/g	0.05	< 0.05	ND	40	102	50	140	106	50	140

QC SUMMARY

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	101	60	130	100	50	140
1,1,1-Trichloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	106	50	140
1,1,2,2-Tetrachloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	99	60	130	96	50	140
1,1,2-Trichloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	92	60	130	97	50	140
1,1-Dichloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	104	60	130	103	50	140
1,1-Dichloroethylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	109	60	130	106	50	140
1,2-Dichlorobenzene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
1,2-Dichloroethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	103	60	130	100	50	140
1,2-Dichloropropane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
1,3-Dichlorobenzene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	99	50	140
1,4-Dichlorobenzene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
Acetone	GCM0288-JUN21	µg/g	0.5	< 0.5	ND	50	96	50	140	103	50	140
Benzene	GCM0288-JUN21	µg/g	0.02	< 0.02	ND	50	106	60	130	105	50	140
Bromodichloromethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	101	60	130	100	50	140
Bromoform	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	98	60	130	97	50	140
Bromomethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	93	50	140	88	50	140
Carbon tetrachloride	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	106	60	130	107	50	140
Chlorobenzene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
Chloroform	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	103	60	130	102	50	140
cis-1,2-Dichloroethylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	104	60	130	103	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-dichloropropene	GCM0288-JUN21	µg/g	0.03	< 0.03	ND	50	103	60	130	95	50	140
Dibromochloromethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	99	60	130	98	50	140
Dichlorodifluoromethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	87	50	140	89	50	140
Ethylbenzene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	103	50	140
Ethylenedibromide	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	100	50	140
n-Hexane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	101	60	130	89	50	140
m/p-xylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	103	50	140
Methyl ethyl ketone	GCM0288-JUN21	µg/g	0.5	< 0.5	ND	50	101	50	140	95	50	140
Methyl isobutyl ketone	GCM0288-JUN21	µg/g	0.5	< 0.5	ND	50	102	50	140	97	50	140
Methyl-t-butyl Ether	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	102	60	130	98	50	140
Methylene Chloride	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	101	50	140
o-xylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	103	50	140
Styrene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	103	50	140
Tetrachloroethylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	107	60	130	105	50	140
Toluene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	104	50	140
trans-1,2-Dichloroethylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	107	60	130	104	50	140
trans-1,3-dichloropropene	GCM0288-JUN21	µg/g	0.03	< 0.03	ND	50	102	60	130	94	50	140
Trichloroethylene	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	105	60	130	104	50	140
Trichlorofluoromethane	GCM0288-JUN21	µg/g	0.05	< 0.05	ND	50	98	50	140	102	50	140
Vinyl Chloride	GCM0288-JUN21	µg/g	0.02	< 0.02	ND	50	97	50	140	95	50	140

QC SUMMARY

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0050-JUN21	µg/g	0.5	<0.5	ND	20	100	80	120	115	70	130

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --



FINAL REPORT

CA15664-JUN21 R1

19-323-100, 3278 Bronte Road Oakville

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants
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 Project 19-323-100, 3278 Bronte Road Oakville
 Order Number
 Samples Soil (2)

LABORATORY DETAILS

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 SGS Reference CA15664-JUN21
 Received 06/29/2021
 Approved 07/02/2021
 Report Number CA15664-JUN21 R1
 Date Reported 07/02/2021

COMMENTS

Temperature of Sample upon Receipt: 4 degrees C
 Cooling Agent Present:Yes
 Custody Seal Present:Yes
 Chain of Custody Number:NA

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA15664-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number	8	9
Sample Name	BH21B-1 SS3	BH21B-2 SS3
Sample Matrix	Soil	Soil
Sample Date	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Hydrides					
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	5.7	4.3
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9
Sample Name	BH21B-1 SS3	BH21B-2 SS3
Sample Matrix	Soil	Soil
Sample Date	14/06/2021	14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Metals and Inorganics					
Moisture Content	%	0.1		11.1	12.2
Barium	µg/g	0.1	220	105	147
Beryllium	µg/g	0.02	2.5	0.80	0.65
Boron	µg/g	1	36	24	20
Cadmium	µg/g	0.02	1.2	0.11	0.11
Chromium	µg/g	0.5	70	29	24
Cobalt	µg/g	0.01	21	14	12
Copper	µg/g	0.1	92	29	22
Lead	µg/g	0.1	120	15	11
Molybdenum	µg/g	0.1	2	0.5	0.5
Nickel	µg/g	0.5	82	28	25
Silver	µg/g	0.05	0.5	< 0.05	< 0.05



FINAL REPORT

CA15664-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Road Oakville

Project Manager: Kirstin Olsen

Samplers: Nicholas Hehi

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

Sample Number 8 9

Sample Name BH21B-1 SS3 BH21B-2 SS3

Sample Matrix Soil Soil

Sample Date 14/06/2021 14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Metals and Inorganics (continued)					
Thallium	µg/g	0.02	1	0.27	0.23
Uranium	µg/g	0.002	2.5	1.4	1.2
Vanadium	µg/g	3	86	42	35
Zinc	µg/g	0.7	290	62	54
Water Soluble Boron	µg/g	0.5		< 0.5	< 0.5

PACKAGE: REG153 - Other (ORP) (SOIL)

Sample Number 8 9

Sample Name BH21B-1 SS3 BH21B-2 SS3

Sample Matrix Soil Soil

Sample Date 14/06/2021 14/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Other (ORP)					
Mercury	ug/g	0.05	0.27	< 0.05	< 0.05
pH	pH Units	0.05		7.96	8.05
Chromium VI	µg/g	0.2	0.66	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05

EXCEEDANCE SUMMARY

No exceedances are present above the regulatory limit(s) indicated

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

BH21B-1 SS3	SKA5102-JUN21	8	06/14/2021	06/29/2021			06/28/2021	06/30/2021
BH21B-2 SS3	SKA5102-JUN21	9	06/14/2021	06/29/2021			06/28/2021	06/30/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

BH21B-1 SS3	SKA5103-JUN21	8	06/14/2021	06/29/2021	06/30/2021	07/02/2021	07/14/2021	07/02/2021
BH21B-2 SS3	SKA5103-JUN21	9	06/14/2021	06/29/2021	06/30/2021	07/02/2021	07/14/2021	07/02/2021

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

BH21B-1 SS3	EMS0190-JUN21	8	06/14/2021	06/29/2021	06/30/2021	06/30/2021	07/12/2021	06/30/2021
BH21B-2 SS3	EMS0190-JUN21	9	06/14/2021	06/29/2021	06/30/2021	06/30/2021	07/12/2021	06/30/2021

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21B-1 SS3	EMS0190-JUN21	8	06/14/2021	06/29/2021	06/30/2021	06/30/2021	12/11/2021	06/30/2021
BH21B-2 SS3	EMS0190-JUN21	9	06/14/2021	06/29/2021	06/30/2021	06/30/2021	12/11/2021	06/30/2021

Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-1 SS3	GCM0296-JUN21	8	06/14/2021	06/29/2021	06/16/2021	06/17/2021	08/13/2021	07/02/2021
BH21B-2 SS3	GCM0296-JUN21	9	06/14/2021	06/29/2021	06/16/2021	06/17/2021	08/13/2021	07/02/2021

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

BH21B-1 SS3	ARD0156-JUN21	8	06/14/2021	06/29/2021	06/30/2021	06/30/2021	07/14/2021	06/30/2021
BH21B-2 SS3	ARD0156-JUN21	9	06/14/2021	06/29/2021	06/30/2021	06/30/2021	07/14/2021	06/30/2021

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

BH21B-1 SS3	ESG0089-JUN21	8	06/14/2021	06/29/2021	06/30/2021	06/30/2021	12/11/2021	06/30/2021
BH21B-2 SS3	ESG0089-JUN21	9	06/14/2021	06/29/2021	06/30/2021	06/30/2021	12/11/2021	06/30/2021



FINAL REPORT

CA15664-JUN21 R1

QC SUMMARY

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5102-JUN21	µg/g	0.05	<0.05	ND	20	104	80	120	95	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5103-JUN21	ug/g	0.2	<0.2	19	20	96	80	120	95	75	125

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0190-JUN21	ug/g	0.05	<0.05	ND	20	91	80	120	93	70	130



FINAL REPORT

CA15664-JUN21 R1

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0190-JUN21	ug/g	0.05	<0.05	ND	20	100	70	130	102	70	130
Arsenic	EMS0190-JUN21	ug/g	0.5	<0.5	1	20	100	70	130	95	70	130
Barium	EMS0190-JUN21	ug/g	0.1	<0.1	8	20	109	70	130	99	70	130
Beryllium	EMS0190-JUN21	ug/g	0.02	<0.02	10	20	91	70	130	80	70	130
Boron	EMS0190-JUN21	ug/g	1	<1	10	20	102	70	130	86	70	130
Cadmium	EMS0190-JUN21	ug/g	0.02	<0.02	3	20	99	70	130	96	70	130
Cobalt	EMS0190-JUN21	ug/g	0.01	<0.01	6	20	103	70	130	101	70	130
Chromium	EMS0190-JUN21	ug/g	0.5	<0.5	6	20	106	70	130	100	70	130
Copper	EMS0190-JUN21	ug/g	0.1	<0.1	3	20	101	70	130	95	70	130
Molybdenum	EMS0190-JUN21	ug/g	0.1	<0.1	14	20	96	70	130	106	70	130
Nickel	EMS0190-JUN21	ug/g	0.5	<0.5	6	20	100	70	130	97	70	130
Lead	EMS0190-JUN21	ug/g	0.1	<0.1	8	20	105	70	130	98	70	130
Antimony	EMS0190-JUN21	ug/g	0.8	<0.8	ND	20	98	70	130	86	70	130
Selenium	EMS0190-JUN21	ug/g	0.7	<0.7	ND	20	100	70	130	93	70	130
Thallium	EMS0190-JUN21	ug/g	0.02	<0.02	9	20	107	70	130	95	70	130
Uranium	EMS0190-JUN21	ug/g	0.002	<0.002	13	20	101	70	130	113	70	130
Vanadium	EMS0190-JUN21	ug/g	3	<3	6	20	106	70	130	102	70	130
Zinc	EMS0190-JUN21	ug/g	0.7	<0.7	4	20	98	70	130	93	70	130



FINAL REPORT

CA15664-JUN21 R1

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0156-JUN21	pH Units	0.05		0	20	100	80	120			

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENVI SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0089-JUN21	µg/g	0.5	<0.5	ND	20	107	80	120	106	70 130	

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

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-- End of Analytical Report --



FINAL REPORT

CA15754-JUN21 R1

19-323-100, 3278 Bronte Rd, Oakville

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants

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Project 19-323-100, 3278 Bronte Rd, Oakville

Order Number

Samples Soil (13)

LABORATORY DETAILS

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SGS Reference CA15754-JUN21

Received 06/30/2021

Approved 07/02/2021

Report Number CA15754-JUN21 R1

Date Reported 07/05/2021

COMMENTS

Temperature of Sample upon Receipt: 9 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 022465

SIGNATORIES

Brad Moore Hon. B.Sc

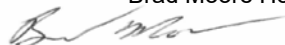


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FINAL REPORT

CA15754-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Rd, Oakville

Project Manager: Kirstin Olsen

Samplers: Alice Gong

PACKAGE: REG153 - Hydrides (SOIL)

	Sample Number	11	12	13	14	15	16	17	18
	Sample Name	BH21B-1/SS2	BH21B-2/SS2	GS1	GS2	GS3	GS4	GS5	GS6
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	14/06/2021	14/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Hydrides												
Antimony	µg/g	0.8	1.3	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.3	4.0	3.4	8.2	5.5	6.9	5.7	7.9
Selenium	µg/g	0.7	1.5	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7

PACKAGE: REG153 - Hydrides (SOIL)

	Sample Number	19	20	21	22	23
	Sample Name	GS7	GS8	GS9	GS10	Dup-0630
	Sample Matrix	Soil	Soil	Soil	Soil	Soil
	Sample Date	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
Hydrides									
Antimony	µg/g	0.8	1.3	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	2.6	19	8.2	10	2.6
Selenium	µg/g	0.7	1.5	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

	Sample Number	11	12	13	14	15	16	17	18
	Sample Name	BH21B-1/SS2	BH21B-2/SS2	GS1	GS2	GS3	GS4	GS5	GS6
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	14/06/2021	14/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			13.5	12.7	15.2	9.3	19.0	5.1	7.5	5.0
Barium	µg/g	0.1	220	390	120	91	41	26	52	55	53	34
Beryllium	µg/g	0.02	2.5	4	0.55	0.49	0.31	0.14	0.33	0.22	0.32	0.17



FINAL REPORT

CA15754-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Rd, Oakville

Project Manager: Kirstin Olsen

Samplers: Alice Gong

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	11	12	13	14	15	16	17	18
Sample Name	BH21B-1/SS2	BH21B-2/SS2	GS1	GS2	GS3	GS4	GS5	GS6
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	14/06/2021	14/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics (continued)												
Boron	µg/g	1	36	120	6	6	< 1	5	2	8	9	8
Cadmium	µg/g	0.02	1.2	1.2	0.13	0.09	0.17	0.46	0.29	1.1	0.44	0.45
Chromium	µg/g	0.5	70	160	19	17	11	13	12	17	13	18
Cobalt	µg/g	0.01	21	22	11	9.9	4.7	3.5	5.1	4.6	5.5	6.1
Copper	µg/g	0.1	92	140	24	23	14	26	19	54	25	71
Lead	µg/g	0.1	120	120	9.9	9.7	20	32	22	70	40	42
Molybdenum	µg/g	0.1	2	6.9	0.6	0.3	0.3	1.0	0.6	1.4	0.8	1.7
Nickel	µg/g	0.5	82	100	23	22	9.1	6.2	10	9.6	12	7.9
Silver	µg/g	0.05	0.5	20	< 0.05	< 0.05	< 0.05	0.09	0.16	0.11	0.07	0.12
Thallium	µg/g	0.02	1	1	0.12	0.13	0.06	0.08	0.09	0.09	0.12	0.07
Uranium	µg/g	0.002	2.5	23	0.78	0.63	0.38	0.40	0.46	0.51	0.54	0.38
Vanadium	µg/g	3	86	86	24	22	16	13	17	13	16	13
Zinc	µg/g	0.7	290	340	51	49	42	160	74	330	200	270
Water Soluble Boron	µg/g	0.5		1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5



FINAL REPORT

CA15754-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Rd, Oakville

Project Manager: Kirstin Olsen

Samplers: Alice Gong

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	19	20	21	22	23
Sample Name	GS7	GS8	GS9	GS10	Dup-0630
Sample Matrix	Soil	Soil	Soil	Soil	Soil
Sample Date	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
Metals and Inorganics									
Moisture Content	%	-			18.4	8.0	5.3	7.5	17.2
Barium	µg/g	0.1	220	390	38	72	22	37	37
Beryllium	µg/g	0.02	2.5	4	0.25	0.19	0.13	0.18	0.25
Boron	µg/g	1	36	120	2	8	16	11	1
Cadmium	µg/g	0.02	1.2	1.2	0.14	0.63	0.63	0.60	0.13
Chromium	µg/g	0.5	70	160	9.6	25	4.1	94	9.9
Cobalt	µg/g	0.01	21	22	3.6	4.6	2.6	8.4	3.5
Copper	µg/g	0.1	92	140	15	47	9.9	110	16
Lead	µg/g	0.1	120	120	13	34	23	110	13
Molybdenum	µg/g	0.1	2	6.9	0.2	1.1	1.1	2.3	0.2
Nickel	µg/g	0.5	82	100	7.3	9.0	6.5	10	7.5
Silver	µg/g	0.05	0.5	20	0.05	0.11	0.14	0.18	0.06
Thallium	µg/g	0.02	1	1	0.06	0.08	0.12	0.07	0.05
Uranium	µg/g	0.002	2.5	23	0.37	0.37	0.52	0.48	0.38
Vanadium	µg/g	3	86	86	14	13	5	37	15
Zinc	µg/g	0.7	290	340	35	190	220	450	36
Water Soluble Boron	µg/g	0.5		1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5



FINAL REPORT

CA15754-JUN21 R1

Client: DS Consultants

Project: 19-323-100, 3278 Bronte Rd, Oakville

Project Manager: Kirstin Olsen

Samplers: Alice Gong

PACKAGE: **REG153 - Other (ORP)** (SOIL)

	Sample Number	11	12	13	14	15	16	17	18
	Sample Name	BH21B-1/SS2	BH21B-2/SS2	GS1	GS2	GS3	GS4	GS5	GS6
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	14/06/2021	14/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Other (ORP)												
Mercury	ug/g	0.05	0.27	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	5	2.8	1.7	0.3	0.4	0.7	3.6	1.1	0.8
SAR Calcium	mg/L	0.2			45.7	14.3	31.1	21.9	28.7	52.1	28.3	25.0
SAR Magnesium	mg/L	0.3			23.1	3.8	1.8	4.0	6.3	11.5	3.5	7.3
SAR Sodium	mg/L	0.1			93.9	27.6	6.6	7.4	16.0	110	23.6	18.4
Conductivity	mS/cm	0.002	0.57	0.7	1.1	0.26	0.16	0.18	0.14	0.27	0.26	0.99
Chromium VI	µg/g	0.2	0.66	8	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.4

PACKAGE: **REG153 - Other (ORP)** (SOIL)

	Sample Number	19	20	21	22	23
	Sample Name	GS7	GS8	GS9	GS10	Dup-0630
	Sample Matrix	Soil	Soil	Soil	Soil	Soil
	Sample Date	30/06/2021	30/06/2021	30/06/2021	30/06/2021	30/06/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
Other (ORP)									
Mercury	ug/g	0.05	0.27	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	5	< 0.2	0.4	< 0.2	0.4	< 0.2
SAR Calcium	mg/L	0.2			24.9	26.9	16.5	30.7	25.1
SAR Magnesium	mg/L	0.3			2.4	7.2	4.6	6.5	2.2
SAR Sodium	mg/L	0.1			3.3	8.5	1.2	9.1	3.5
Conductivity	mS/cm	0.002	0.57	0.7	0.17	0.24	0.29	0.30	0.25
Chromium VI	µg/g	0.2	0.66	8	< 0.2	0.4	< 0.2	3.8	0.3

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED	REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkla nd - UNDEFINED
				L1	L2

BH21B-1/SS2

Conductivity	EPA 6010/SM 2510	mS/cm	1.1	0.57	0.7
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	2.8	2.4	

GS4

Zinc	EPA 3050/EPA 200.8	µg/g	330	290	
Sodium Adsorption Ratio	MOE 4696e01/EPA 6010	No unit	3.6	2.4	

GS6

Conductivity	EPA 6010/SM 2510	mS/cm	0.99	0.57	0.7
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GS8

Arsenic	EPA 3050/EPA 200.8	µg/g	19	18	18
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GS10

Chromium	EPA 3050/EPA 200.8	µg/g	94	70	
Copper	EPA 3050/EPA 200.8	µg/g	110	92	
Molybdenum	EPA 3050/EPA 200.8	µg/g	2.3	2	
Zinc	EPA 3050/EPA 200.8	µg/g	450	290	340
Chromium VI	EPA218.6/EPA3060A	µg/g	3.8	0.66	

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

BH21B-1/SS2	EWL0007-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/12/2021	07/02/2021
BH21B-2/SS2	EWL0007-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/12/2021	07/02/2021
GS1	EWL0007-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS2	EWL0007-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS3	EWL0007-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS4	EWL0007-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS5	EWL0007-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS6	EWL0007-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS7	EWL0007-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS8	EWL0007-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS9	EWL0007-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS10	EWL0007-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
Dup-0630	EWL0007-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

BH21B-1/SS2	SKA5000-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/14/2021	07/02/2021
BH21B-2/SS2	SKA5000-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/14/2021	07/02/2021
GS1	SKA5000-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS2	SKA5000-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS3	SKA5000-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS4	SKA5000-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS5	SKA5000-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS6	SKA5000-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS7	SKA5000-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS8	SKA5000-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS9	SKA5000-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
GS10	SKA5000-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021
Dup-0630	SKA5000-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/30/2021	07/02/2021

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

BH21B-1/SS2	EMS0002-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/12/2021	07/02/2021
BH21B-2/SS2	EMS0002-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	07/12/2021	07/02/2021
GS1	EMS0002-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS2	EMS0002-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS3	EMS0002-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS4	EMS0002-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS5	EMS0002-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Mercury by CVAAS (continued)

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

GS6	EMS0002-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS7	EMS0002-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS8	EMS0002-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS9	EMS0002-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
GS10	EMS0002-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021
Dup-0630	EMS0002-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	07/28/2021	07/02/2021

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

BH21B-1/SS2	ESG0002-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
BH21B-2/SS2	ESG0002-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
GS1	ESG0002-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS2	ESG0002-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS3	ESG0002-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS4	ESG0002-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS5	ESG0002-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS6	ESG0002-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS7	ESG0002-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS8	ESG0002-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS9	ESG0002-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS10	ESG0002-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
Dup-0630	ESG0002-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21B-1/SS2	EMS0002-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
BH21B-2/SS2	EMS0002-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
GS1	EMS0002-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS2	EMS0002-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS3	EMS0002-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS4	EMS0002-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS5	EMS0002-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS6	EMS0002-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS7	EMS0002-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS8	EMS0002-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS9	EMS0002-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS10	EMS0002-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
Dup-0630	EMS0002-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21B-1/SS2	GCM0529-JUN21	11	06/14/2021	06/30/2021	06/30/2021	07/02/2021	08/13/2021	07/02/2021
BH21B-2/SS2	GCM0529-JUN21	12	06/14/2021	06/30/2021	06/30/2021	07/02/2021	08/13/2021	07/02/2021
GS1	GCM0529-JUN21	13	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS2	GCM0529-JUN21	14	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS3	GCM0529-JUN21	15	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS4	GCM0529-JUN21	16	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS5	GCM0529-JUN21	17	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS6	GCM0529-JUN21	18	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS7	GCM0529-JUN21	19	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS8	GCM0529-JUN21	20	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS9	GCM0529-JUN21	21	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
GS10	GCM0529-JUN21	22	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021
Dup-0630	GCM0529-JUN21	23	06/30/2021	06/30/2021	06/30/2021	07/02/2021	08/29/2021	07/02/2021

Sodium adsorption ratio (SAR)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]ARD-LAK-AN-021

BH21B-1/SS2		11	06/14/2021	06/30/2021			12/11/2021	07/02/2021
BH21B-2/SS2		12	06/14/2021	06/30/2021			12/11/2021	07/02/2021
GS1		13	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS2		14	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS3		15	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS4		16	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS5		17	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS6		18	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS7		19	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS8		20	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS9		21	06/30/2021	06/30/2021			12/27/2021	07/02/2021
GS10		22	06/30/2021	06/30/2021			12/27/2021	07/02/2021
Dup-0630		23	06/30/2021	06/30/2021			12/27/2021	07/02/2021

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

BH21B-1/SS2	ESG0001-JUL21	11	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
BH21B-2/SS2	ESG0001-JUL21	12	06/14/2021	06/30/2021	07/02/2021	07/02/2021	12/11/2021	07/02/2021
GS1	ESG0001-JUL21	13	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS2	ESG0001-JUL21	14	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS3	ESG0001-JUL21	15	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS4	ESG0001-JUL21	16	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS5	ESG0001-JUL21	17	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Water Soluble Boron (continued)

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

GS6	ESG0001-JUL21	18	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS7	ESG0001-JUL21	19	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS8	ESG0001-JUL21	20	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS9	ESG0001-JUL21	21	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
GS10	ESG0001-JUL21	22	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021
Dup-0630	ESG0001-JUL21	23	06/30/2021	06/30/2021	07/02/2021	07/02/2021	12/27/2021	07/02/2021



FINAL REPORT

CA15754-JUN21 R1

QC SUMMARY

Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0007-JUL21	mS/cm	0.002	<0.002	0	10	99	90	110	NA		

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5000-JUL21	ug/g	0.2	<0.2	ND	20	100	80	120	104	75	125

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0002-JUL21	ug/g	0.05	<0.05	ND	20	107	80	120	99	70	130

QC SUMMARY

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0002-JUL21	mg/L	0.2	<0.09	1	20	100	80	120	98	70	130
SAR Magnesium	ESG0002-JUL21	mg/L	0.3	<0.02	0	20	100	80	120	95	70	130
SAR Sodium	ESG0002-JUL21	mg/L	0.1	<0.15	1	20	104	80	120	100	70	130

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0002-JUL21	ug/g	0.05	<0.05	ND	20	100	70	130	104	70	130
Arsenic	EMS0002-JUL21	µg/g	0.5	<0.5	2	20	101	70	130	97	70	130
Barium	EMS0002-JUL21	ug/g	0.1	<0.1	4	20	109	70	130	94	70	130
Beryllium	EMS0002-JUL21	µg/g	0.02	<0.02	1	20	92	70	130	85	70	130
Boron	EMS0002-JUL21	µg/g	1	<1	ND	20	103	70	130	92	70	130
Cadmium	EMS0002-JUL21	µg/g	0.02	<0.02	17	20	101	70	130	99	70	130
Cobalt	EMS0002-JUL21	µg/g	0.01	<0.01	3	20	101	70	130	100	70	130
Chromium	EMS0002-JUL21	µg/g	0.5	<0.5	3	20	103	70	130	97	70	130
Copper	EMS0002-JUL21	µg/g	0.1	<0.1	1	20	102	70	130	99	70	130
Molybdenum	EMS0002-JUL21	µg/g	0.1	<0.1	18	20	97	70	130	106	70	130
Nickel	EMS0002-JUL21	ug/g	0.5	<0.5	1	20	100	70	130	98	70	130
Lead	EMS0002-JUL21	ug/g	0.1	<0.1	1	20	100	70	130	91	70	130
Antimony	EMS0002-JUL21	µg/g	0.8	<0.8	ND	20	101	70	130	84	70	130
Selenium	EMS0002-JUL21	µg/g	0.7	<0.7	ND	20	103	70	130	99	70	130
Thallium	EMS0002-JUL21	µg/g	0.02	<0.02	1	20	102	70	130	88	70	130
Uranium	EMS0002-JUL21	µg/g	0.002	<0.002	0	20	109	70	130	109	70	130
Vanadium	EMS0002-JUL21	µg/g	3	<3	1	20	100	70	130	96	70	130
Zinc	EMS0002-JUL21	µg/g	0.7	<0.7	0	20	100	70	130	97	70	130

QC SUMMARY

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENVI SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0001-JUL21	µg/g	0.5	<0.5	ND	20	93	80	120	115	70	130

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --

Received By: David Pan
 Received Date: 06/30/2021 (mm/dd/yy)
 Received Time: 14:45 (hr.: min)

Received By (signature):
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Temperature Upon Receipt (°C): 9.90
 Type: ice

REPORT INFORMATION

Company: DS CONSULTANTS
 Contact: KIRSTIN
 Address: 6221 Hwy 7, #16
Vaughan, ON
 Phone: 905-264-9393
 Fax: KIRSTIN.OISEN@DSCONSULTANTS.CA
 Email: Alice.guy@dsconsultants.ca

INVOICE INFORMATION

Same as Report Information
 Company:
 Contact:
 Address:

Received By (signature):
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Temperature Upon Receipt (°C): 9.90
 Type: ice

LAB LIMS #: CA-15754302

Quotation #: 19-323-100
 Project #: 378 Bronte Rd, Oakville
 P.O. #: 378 Bronte Rd, Oakville
 Site Location/ID: 378 Bronte Rd, Oakville

TURNAROUND TIME (TAT) REQUIRED
 Regular TAT (5-7days)
 Day 2 Days 3 Days 4 Days
 TAT's are quoted in business days (exclude statutory holidays & weekends).
 Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply):
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: July 2, 2021
 *NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

O.Reg 153/04 O.Reg 406/19
 Table 1 Res/Park Soil Texture: Coarse
 Table 2 Ind/Com Medium/Fine
 Table 3 Agri/Other Other:
 Table MISA
 Soil Volume <350m3 >350m3
 Other Regulations: Reg 347/558 (3 Day min TAT)
 P/WOO M/MER Storm
 C/CM Other:
 MISA
 ODWS Not Reportable *See note
 YES NO

Sewer By-Law:
 Sanitary
 Storm
 Municipality:

RECORD OF SITE CONDITION (RSC)

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 BH21B-1/SS2	June 14 AM	1	S	
2 BH21B-2/SS2	June 14	1	S	
3 G1S1	June 30	1	S	
4 G1S2		1	S	
5 G1S3		1	S	
6 G1S4		1	S	
7 G1S5		1	S	
8 G1S6		1	S	
9 G1S7		1	S	
10 G1S8		1	S	
11 G1S9		1	S	
12 G1S10		1	S	

ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)	PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	Specify TCLP tests <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> BTEX <input type="checkbox"/> ABN <input type="checkbox"/> gmit <input type="checkbox"/>
Metals & Inorganics (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
Full Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals only	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 only	VOCs <input type="checkbox"/> BTEX only		Water Characterization Pkg <input type="checkbox"/> Sewer Use: <input type="checkbox"/> General <input type="checkbox"/> Extended <input type="checkbox"/>	
ICP metals plus BHMWS-soil only) Hg, CM	SVOCs <input type="checkbox"/> PAHs only	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	BTEX only	Pesticides <input type="checkbox"/> Organochlorine or specify other <input type="checkbox"/>	Appendix 2: 406/19 Leachate Screening Levels Table	
ICP Metals Suite (Cd, Cr, Hg, Pb, Ni, Cu, Zn, Fe, Mn, Al, Si, Ti, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sb, As, Ba, Be, B, Br, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, V, Zn, Ni, Hg, CM)</							



FINAL REPORT

CA14032-MAR21 R

19-323-100, Palmero Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Jill Campbell, B.Sc.,GISAS
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	2165
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	jill.campbell@sgs.com
Project	19-323-100, Palmero Village	SGS Reference	CA14032-MAR21
Order Number		Received	03/01/2021
Samples	Soil (40)	Approved	03/09/2021
		Report Number	CA14032-MAR21 R
		Date Reported	03/09/2021

COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the

three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 6 degrees C

Cooling Agent Present:yes

Custody Seal Present:yes

Chain of Custody Number:010936/37/38 & 019752

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - BTEX (SOIL)

	Sample Number	10	11	13	16	17	19	23	25
	Sample Name	BH21-3/SS2	BH21-3/SS3	BH21-8/SS2	BH21-9/SS3	BH21-9/SS6	BH21-10/SS2	BH21-12/SS2	BH21-13/SS2
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	26/02/2021	26/02/2021	21/02/2021	21/02/2021	25/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
BTEX												
Benzene	µg/g	0.02	0.21	0.17	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	1.1	1.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	2.3	6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	3.1	25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - BTEX (SOIL)

	Sample Number	28	29	32	43	44	45	46	47
	Sample Name	BH21-14/SS3	BH21-14/SS4	BH21-15/SS7	Dup01	Dup02	Dup03	Dup04	Dup05
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	26/03/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
BTEX												
Benzene	µg/g	0.02	0.21	0.17	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	1.1	1.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	2.3	6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	3.1	25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Hydrides (SOIL)

	Sample Number	9	12	15	18	21	22	24	26
	Sample Name	BH21-3/SS1	BH21-8/SS1	BH21-9/SS2	BH21-10/SS1	BH21-11/SS1	BH21-12/SS1	BH21-13/SS1	BH21-14/SS1
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	26/02/2021	21/02/2021	24/02/2021	25/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Hydrides												
Antimony	µg/g	0.8	7.5	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.0	5.0	4.0	4.0	5.1	6.2	4.2	5.4
Selenium	µg/g	0.7	2.4	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7

PACKAGE: REG153 - Hydrides (SOIL)

	Sample Number	30	33	34	35	36	37	38	39
	Sample Name	BH21-15/SS1	GS1	GS2	GS3	GS4	GS5	GS6	GS7
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	24/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Hydrides												
Antimony	µg/g	0.8	7.5	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.1	4.6	3.5	4.6	5.2	5.6	3.9	4.4
Selenium	µg/g	0.7	2.4	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7

PACKAGE: REG153 - Hydrides (SOIL)

	Sample Number	40	41	42
	Sample Name	GS8	GS9	GS10
	Sample Matrix	Soil	Soil	Soil
	Sample Date	25/02/2021	26/02/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
Hydrides							
Antimony	µg/g	0.8	7.5	7.5	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.2	4.6	5.0
Selenium	µg/g	0.7	2.4	2.4	< 0.7	< 0.7	< 0.7



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	10	11	12	13	14	15	16
Sample Name	BH21-3/SS1	BH21-3/SS2	BH21-3/SS3	BH21-8/SS1	BH21-8/SS2	BH21-9/SS1	BH21-9/SS2	BH21-9/SS3
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	26/02/2021	26/02/2021	26/02/2021	26/02/2021	26/02/2021	26/02/2021	26/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			18.5	16.6	11.4	21.0	11.5	19.5	10.8	9.8
Barium	µg/g	0.1	390	390	91			93			81	
Beryllium	µg/g	0.02	4	5	0.72			0.85			0.58	
Boron	µg/g	1	120	120	6			8			8	
Cadmium	µg/g	0.02	1.2	1.2	0.17			0.13			0.10	
Chromium	µg/g	0.5	160	160	21			24			18	
Cobalt	µg/g	0.01	22	22	11			13			12	
Copper	µg/g	0.1	140	180	24			31			26	
Lead	µg/g	0.1	120	120	12			13			11	
Molybdenum	µg/g	0.1	6.9	6.9	0.4			0.4			0.4	
Nickel	µg/g	0.5	100	130	25			30			26	
Silver	µg/g	0.05	20	25	< 0.05			< 0.05			< 0.05	
Thallium	µg/g	0.02	1	1	0.15			0.17			0.16	
Uranium	µg/g	0.002	23	23	0.54			0.54			0.59	
Vanadium	µg/g	3	86	86	29			32			25	
Zinc	µg/g	0.7	340	340	57			61			52	
Water Soluble Boron	µg/g	0.5	1.5	1.5	< 0.5			< 0.5			< 0.5	



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CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	17	18	19	20	21	22	23	24
Sample Name	BH21-9/SS6	BH21-10/SS1	BH21-10/SS2	BH21-10/SS3	BH21-11/SS1	BH21-12/SS1	BH21-12/SS2	BH21-13/SS1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	21/02/2021	21/02/2021	21/02/2021	21/02/2021	24/02/2021	25/02/2021	25/02/2021	24/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			10.0	16.1	12.7	12.4	13.1	18.9	11.0	20.1
Barium	µg/g	0.1	390	390		54			120	120		98
Beryllium	µg/g	0.02	4	5		0.41			0.65	1.2		0.50
Boron	µg/g	1	120	120		7			8	5		8
Cadmium	µg/g	0.02	1.2	1.2		0.30			0.29	0.14		0.41
Chromium	µg/g	0.5	160	160		14			20	31		17
Cobalt	µg/g	0.01	22	22		6.5			12	18		8.3
Copper	µg/g	0.1	140	180		21			58	39		29
Lead	µg/g	0.1	120	120		18			86	22		70
Molybdenum	µg/g	0.1	6.9	6.9		0.6			0.6	0.6		0.5
Nickel	µg/g	0.5	100	130		15			26	38		18
Silver	µg/g	0.05	20	25		0.05			< 0.05	< 0.05		0.07
Thallium	µg/g	0.02	1	1		0.10			0.13	0.22		0.11
Uranium	µg/g	0.002	23	23		0.45			0.55	0.73		0.48
Vanadium	µg/g	3	86	86		23			26	38		21
Zinc	µg/g	0.7	340	340		90			710	96		170
Water Soluble Boron	µg/g	0.5	1.5	1.5		< 0.5			< 0.5	< 0.5		< 0.5



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	25	26	27	28	29	30	31	32
Sample Name	BH21-13/SS2	BH21-14/SS1	BH21-14/SS2	BH21-14/SS3	BH21-14/SS4	BH21-15/SS1	BH21-15/SS3	BH21-15/SS7
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			19.3	20.0	14.7	14.1	11.8	15.9	16.1	9.7
Barium	µg/g	0.1	390	390		110				88		
Beryllium	µg/g	0.02	4	5		1.1				0.65		
Boron	µg/g	1	120	120		5				5		
Cadmium	µg/g	0.02	1.2	1.2		0.17				0.12		
Chromium	µg/g	0.5	160	160		26				21		
Cobalt	µg/g	0.01	22	22		16				11		
Copper	µg/g	0.1	140	180		34				25		
Lead	µg/g	0.1	120	120		18				14		
Molybdenum	µg/g	0.1	6.9	6.9		0.5				0.4		
Nickel	µg/g	0.5	100	130		34				26		
Silver	µg/g	0.05	20	25		< 0.05				< 0.05		
Thallium	µg/g	0.02	1	1		0.20				0.17		
Uranium	µg/g	0.002	23	23		0.62				0.56		
Vanadium	µg/g	3	86	86		34				28		
Zinc	µg/g	0.7	340	340		72				59		
Water Soluble Boron	µg/g	0.5	1.5	1.5		< 0.5				< 0.5		



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	33	34	35	36	37	38	39	40
Sample Name	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	25/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021	25/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			24.6	23.1	24.3	24.9	22.0	17.7	23.1	20.0
Barium	µg/g	0.1	390	390	87	86	100	120	97	79	100	110
Beryllium	µg/g	0.02	4	5	0.69	0.60	0.91	0.88	0.84	0.62	0.84	0.82
Boron	µg/g	1	120	120	3	3	4	5	5	6	4	5
Cadmium	µg/g	0.02	1.2	1.2	0.19	0.31	0.21	0.23	0.17	0.15	0.28	0.22
Chromium	µg/g	0.5	160	160	22	22	24	27	24	20	25	24
Cobalt	µg/g	0.01	22	22	12	10	14	14	15	10	14	11
Copper	µg/g	0.1	140	180	24	21	29	31	38	24	25	25
Lead	µg/g	0.1	120	120	18	21	18	20	16	13	19	17
Molybdenum	µg/g	0.1	6.9	6.9	0.5	0.5	0.5	0.5	0.4	0.3	0.5	0.5
Nickel	µg/g	0.5	100	130	25	19	27	32	33	24	25	25
Silver	µg/g	0.05	20	25	0.05	0.18	0.08	0.07	< 0.05	< 0.05	0.10	0.08
Thallium	µg/g	0.02	1	1	0.15	0.15	0.18	0.18	0.17	0.15	0.17	0.16
Uranium	µg/g	0.002	23	23	0.54	0.58	0.60	0.56	0.51	0.56	0.67	0.90
Vanadium	µg/g	3	86	86	30	28	32	34	31	27	32	32
Zinc	µg/g	0.7	340	340	64	68	69	79	70	55	68	67



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	41	42	43	44	45	46	47	48
Sample Name	GS9	GS10	Dup01	Dup02	Dup03	Dup04	Dup05	Dup06
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	25/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021	26/03/2021	25/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			20.9	21.8	12.7	12.0	18.5	11.2	11.8	25.9
Barium	µg/g	0.1	390	390	85	110						
Beryllium	µg/g	0.02	4	5	0.65	0.81						
Boron	µg/g	1	120	120	6	6						
Cadmium	µg/g	0.02	1.2	1.2	0.19	0.18						
Chromium	µg/g	0.5	160	160	22	25						
Cobalt	µg/g	0.01	22	22	12	14						
Copper	µg/g	0.1	140	180	28	30						
Lead	µg/g	0.1	120	120	14	17						
Molybdenum	µg/g	0.1	6.9	6.9	0.4	0.3						
Nickel	µg/g	0.5	100	130	27	34						
Silver	µg/g	0.05	20	25	0.10	0.06						
Thallium	µg/g	0.02	1	1	0.15	0.19						
Uranium	µg/g	0.002	23	23	0.56	0.63						
Vanadium	µg/g	3	86	86	29	33						
Zinc	µg/g	0.7	340	340	62	65						



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Organochlorine Pests

(OCs) (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	33	34	35	36	37	38	39	40
Sample Name	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	25/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021	25/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Organochlorine Pests (OCs)												
Aldrin	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
alpha-Chlordane	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
gamma-Chlordane	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chlordane (total)	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o,p-DDD	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
pp-DDD	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDD (total)	µg/g	0.05	3.3	3.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
o,p-DDE	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
pp-DDE	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDE (total)	µg/g	0.05	0.26	0.33	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
pp-DDT	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
gamma-BHC	µg/g	0.01	0.056	0.063	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Endosulfan I	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Endosulfan II	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Endrin	µg/g	0.04	0.04	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Heptachlor	µg/g	0.01	0.15	0.15	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	µg/g	0.01	0.52	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Organochlorine Pests

(OCs) (SOIL)

	Sample Number	33	34	35	36	37	38	39	40
	Sample Name	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	25/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Organochlorine Pests (OCs) (continued)												
Hexachlorobutadiene	µg/g	0.01	0.012	0.014	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.089	0.071	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.13	0.13	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - Organochlorine Pests

(OCs) (SOIL)

	Sample Number	41	42	48
	Sample Name	GS9	GS10	Dup06
	Sample Matrix	Soil	Soil	Soil
	Sample Date	26/02/2021	25/02/2021	25/03/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
Organochlorine Pests (OCs)							
Aldrin	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05
alpha-Chlordane	µg/g	0.02			< 0.02	< 0.02	< 0.02
gamma-Chlordane	µg/g	0.02			< 0.02	< 0.02	< 0.02
Chlordane (total)	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05
o,p-DDD	µg/g	0.02			< 0.02	< 0.02	< 0.02
pp-DDD	µg/g	0.02			< 0.02	< 0.02	< 0.02
DDD (total)	µg/g	0.05	3.3	3.3	< 0.05	< 0.05	< 0.05
o,p-DDE	µg/g	0.02			< 0.02	< 0.02	< 0.02
pp-DDE	µg/g	0.02			< 0.02	< 0.02	< 0.02
DDE (total)	µg/g	0.05	0.26	0.33	< 0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02			< 0.02	< 0.02	< 0.02



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Organochlorine Pests

(OCs) (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	41	42	48
Sample Name	GS9	GS10	Dup06
Sample Matrix	Soil	Soil	Soil
Sample Date	26/02/2021	25/02/2021	25/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result
Organochlorine Pests (OCs) (continued)							
pp-DDT	µg/g	0.02			< 0.02	< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	1.4	< 0.05	< 0.05	< 0.05
Dieldrin	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05
gamma-BHC	µg/g	0.01	0.056	0.063	< 0.01	< 0.01	< 0.01
Endosulfan I	µg/g	0.02			< 0.02	< 0.02	< 0.02
Endosulfan II	µg/g	0.02			< 0.02	< 0.02	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	0.04	< 0.04	< 0.04	< 0.04
Endrin	µg/g	0.04	0.04	0.04	< 0.04	< 0.04	< 0.04
Heptachlor	µg/g	0.01	0.15	0.15	< 0.01	< 0.01	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	0.05	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	µg/g	0.01	0.52	0.52	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.012	0.014	< 0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.089	0.071	< 0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.13	0.13	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Other (ORP)** (SOIL)

	Sample Number	9	11	12	15	18	20	21	22
	Sample Name	BH21-3/SS1	BH21-3/SS3	BH21-8/SS1	BH21-9/SS2	BH21-10/SS1	BH21-10/SS3	BH21-11/SS1	BH21-12/SS1
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Other (ORP)												
Mercury	ug/g	0.05	0.27	1.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	5	5	0.4	0.4	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
SAR Calcium	mg/L	0.09			34.6	27.3	16.1	24.1		30.7	16.4	
SAR Magnesium	mg/L	0.02			3.7	3.9	4.0	2.5		3.3	2.6	
SAR Sodium	mg/L	0.15			8.6	9.0	3.3	2.8		1.0	2.1	
Conductivity	mS/cm	0.002	0.7	0.7	0.28	0.26	0.14	0.18		0.21	0.19	
pH	pH Units	0.05			6.79	7.39	7.21	7.72	7.64	7.84	7.51	7.46
Chromium VI	µg/g	0.2	8	10	0.6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.3
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Other (ORP)** (SOIL)

Sample Number	24	26	30	31
Sample Name	BH21-13/SS1	BH21-14/SS1	BH21-15/SS1	BH21-15/SS3
Sample Matrix	Soil	Soil	Soil	Soil
Sample Date	24/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
Other (ORP)								
Mercury	ug/g	0.05	0.27	1.8	0.08	< 0.05	< 0.05	
Sodium Adsorption Ratio	No unit	0.2	5	5	0.2	0.2	< 0.2	
SAR Calcium	mg/L	0.09			51.2	27.4	27.7	
SAR Magnesium	mg/L	0.02			5.5	1.8	1.5	
SAR Sodium	mg/L	0.15			6.4	4.6	3.5	
Conductivity	mS/cm	0.002	0.7	0.7	0.38	0.20	0.19	
pH	pH Units	0.05			7.55	7.57	7.60	7.74
Chromium VI	µg/g	0.2	8	10	< 0.2	0.4	0.5	
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05	< 0.05	



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - PAHs (SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Sample Number	9	12	14	18	27	30
Sample Name	BH21-3/SS1	BH21-8/SS1	BH21-9/SS1	BH21-10/SS1	BH21-14/SS2	BH21-15/SS1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	26/02/2021	26/02/2021	21/02/2021	24/02/2021	24/02/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result
PAHs										
Acenaphthene	µg/g	0.05	7.9	29	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.15	0.17	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.67	0.74	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.5	0.63	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	µg/g	0.05	0.3	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b+j)fluoranthene	µg/g	0.05	0.78	0.78	< 0.05	< 0.05	< 0.05	0.08	< 0.05	< 0.05
Benzo(ghi)perylene	µg/g	0.1	6.6	7.8	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.78	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	µg/g	0.05	7	7.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	0.1	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Fluoranthene	µg/g	0.05	0.69	0.69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	µg/g	0.05	62	69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.38	0.48	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
1-Methylnaphthalene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
2-Methylnaphthalene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.99	3.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.6	0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	6.2	7.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	µg/g	0.05	78	78	< 0.05	< 0.05	< 0.05	0.07	< 0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Pesticides Surrogate (SOIL)

	Sample Number	33	34	35	36	37	38	39	40
	Sample Name	GS1	GS2	GS3	GS4	GS5	GS6	GS7	GS8
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	25/02/2021	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-			109	112	95	103	99	102	109	103

PACKAGE: REG153 - Pesticides Surrogate (SOIL)

	Sample Number	41	42	48
	Sample Name	GS9	GS10	Dup06
	Sample Matrix	Soil	Soil	Soil
	Sample Date	26/02/2021	25/02/2021	25/03/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
Pesticides Surrogate							
Surr Decachlorobiphenyl	Surr Rec %	-			113	106	100

PACKAGE: REG153 - PHCs (SOIL)

	Sample Number	10	13	16	19	23	28	32	43
	Sample Name	BH21-3/SS2	BH21-8/SS2	BH21-9/SS3	BH21-10/SS2	BH21-12/SS2	BH21-14/SS3	BH21-15/SS7	Dup01
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	26/02/2021	21/02/2021	25/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
PHCs												
F1 (C6-C10)	µg/g	10	55	65	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F2 (C10-C16)	µg/g	10	98	150	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F3 (C16-C34)	µg/g	50	300	1300	< 50	< 50	< 50	130	< 50	< 50	< 50	< 50
F4 (C34-C50)	µg/g	50	2800	5600	< 50	< 50	< 50	138	< 50	< 50	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES	YES	YES	YES	YES	YES	YES



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	46	47
Sample Name	Dup04	Dup05
Sample Matrix	Soil	Soil
Sample Date	24/02/2021	26/03/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
PHCs						
F1 (C6-C10)	µg/g	10	55	65	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10
F2 (C10-C16)	µg/g	10	98	150	< 10	< 10
F3 (C16-C34)	µg/g	50	300	1300	< 50	< 50
F4 (C34-C50)	µg/g	50	2800	5600	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES

PACKAGE: REG153 - SVOC Surrogates (SOIL)

Sample Number	9	12	14	18	27	30
Sample Name	BH21-3/SS1	BH21-8/SS1	BH21-9/SS1	BH21-10/SS1	BH21-14/SS2	BH21-15/SS1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	26/02/2021	26/02/2021	21/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result
SVOC Surrogates										
Surr Nitrobenzene-d5	Surr Rec %	-			86	87	89	89	94	94
Surr 2-Fluorobiphenyl	Surr Rec %	-			103	105	104	99	94	86
Surr 4-Terphenyl-d14	Surr Rec %	-			92	93	92	108	103	95
Surr 2-Fluorophenol	Surr Rec %	-			83	82	85	84	83	85
Surr Phenol-d6	Surr Rec %	-			92	93	94	92	89	90
Surr 2,4,6-Tribromophenol	Surr Rec %	-			75	82	80	76	86	85



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	11	13	17	19	25	29	32	44
Sample Name	BH21-3/SS3	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	BH21-14/SS4	BH21-15/SS7	Dup02
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
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THMs (VOC)

Bromodichloromethane	µg/g	0.05	1.5	1.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	µg/g	0.05	0.27	0.26	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	µg/g	0.05	2.3	2.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	45
Sample Name	Dup03
Sample Matrix	Soil
Sample Date	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
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THMs (VOC)

Bromodichloromethane	µg/g	0.05	1.5	1.9	< 0.05
Bromoform	µg/g	0.05	0.27	0.26	< 0.05
Dibromochloromethane	µg/g	0.05	2.3	2.9	< 0.05

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	11	13	17	19	25	29	32	33
Sample Name	BH21-3/SS3	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	BH21-14/SS4	BH21-15/SS7	GS1
Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Sample Date	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	24/02/2021	24/02/2021	25/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result
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VOC Surrogates

Surr 1,2-Dichloroethane-d4	Surr Rec %	-			99	99	98	98	99	98	99
Surr 4-Bromofluorobenzene	Surr Rec %	-			91	91	90	90	90	89	89
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-			86	87	87	87	86	86	86
Surr TCMX	Surr Rec %	-									87



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CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - VOC Surrogates (SOIL)

	Sample Number	34	35	36	37	38	39	40	41
	Sample Name	GS2	GS3	GS4	GS5	GS6	GS7	GS8	GS9
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	25/02/2021	25/02/2021	25/02/2021	25/02/2021	01/03/2021	25/02/2021	25/02/2021	26/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
VOC Surrogates												
Surr TCMX	Surr Rec %	-			91	81	88	80	84	93	93	100

PACKAGE: REG153 - VOC Surrogates (SOIL)

	Sample Number	42	44	45	48
	Sample Name	GS10	Dup02	Dup03	Dup06
	Sample Matrix	Soil	Soil	Soil	Soil
	Sample Date	25/02/2021	24/02/2021	24/02/2021	25/03/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
VOC Surrogates								
Surr 1,2-Dichloroethane-d4	Surr Rec %	-			98	98		
Surr 4-Bromofluorobenzene	Surr Rec %	-			89	89		
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-			86	86		
Surr TCMX	Surr Rec %	-			91		81	

PACKAGE: REG153 - VOCs (SOIL)

	Sample Number	11	13	17	19	25	29	32	44
	Sample Name	BH21-3/SS3	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	BH21-14/SS4	BH21-15/SS7	Dup02
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
VOCs												
Acetone	µg/g	0.5	16	28	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromomethane	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.05	0.12	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlorobenzene	µg/g	0.05	2.4	2.7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chloroform	µg/g	0.05	0.05	0.18	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - VOCs (SOIL)**

	Sample Number	11	13	17	19	25	29	32	44
	Sample Name	BH21-3/SS3	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	BH21-14/SS4	BH21-15/SS7	Dup02
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
VOCs (continued)												
1,2-Dichlorobenzene	µg/g	0.05	1.2	1.7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	4.8	6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.083	0.097	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	16	25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.47	0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethylene	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.084	0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	2.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.05	0.085	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,3-dichloropropene	µg/g	0.03			< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
trans-1,3-dichloropropene	µg/g	0.03			< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.05	0.081	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
n-Hexane	µg/g	0.05	2.8	34	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	16	44	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	1.7	4.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.75	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	0.1	0.96	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	µg/g	0.05	0.7	2.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	0.28	2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.058	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - VOCs (SOIL)

	Sample Number	11	13	17	19	25	29	32	44
	Sample Name	BH21-3/SS3	BH21-8/SS2	BH21-9/SS6	BH21-10/SS2	BH21-13/SS2	BH21-14/SS4	BH21-15/SS7	Dup02
	Sample Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
	Sample Date	26/02/2021	26/02/2021	21/02/2021	21/02/2021	24/02/2021	24/02/2021	24/02/2021	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
VOCs (continued)												
1,1,1-Trichloroethane	µg/g	0.05	0.38	3.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.061	0.52	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	4	5.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Vinyl Chloride	µg/g	0.02	0.02	0.022	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

PACKAGE: REG153 - VOCs (SOIL)

	Sample Number	45
	Sample Name	Dup03
	Sample Matrix	Soil
	Sample Date	24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
VOCs					
Acetone	µg/g	0.5	16	28	< 0.5
Bromomethane	µg/g	0.05	0.05	0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.05	0.12	< 0.05
Chlorobenzene	µg/g	0.05	2.4	2.7	< 0.05
Chloroform	µg/g	0.05	0.05	0.18	< 0.05
1,2-Dichlorobenzene	µg/g	0.05	1.2	1.7	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	4.8	6	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.083	0.097	< 0.05
Dichlorodifluoromethane	µg/g	0.05	16	25	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.47	0.6	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	0.05	< 0.05



FINAL REPORT

CA14032-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palmero Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - VOCs (SOIL)**

Sample Number 45
Sample Name Dup03
Sample Matrix Soil
Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
VOCs (continued)					
1,1-Dichloroethylene	µg/g	0.05	0.05	0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.084	0.75	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	1.9	2.5	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.05	0.085	< 0.05
cis-1,3-dichloropropene	µg/g	0.03			< 0.03
trans-1,3-dichloropropene	µg/g	0.03			< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.05	0.081	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	0.05	< 0.05
n-Hexane	µg/g	0.05	2.8	34	< 0.05
Methyl ethyl ketone	µg/g	0.5	16	44	< 0.5
Methyl isobutyl ketone	µg/g	0.5	1.7	4.3	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.75	1.4	< 0.05
Methylene Chloride	µg/g	0.05	0.1	0.96	< 0.05
Styrene	µg/g	0.05	0.7	2.2	< 0.05
Tetrachloroethylene	µg/g	0.05	0.28	2.3	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.058	0.05	< 0.05
1,1,2,2-Tetrachloroethane	µg/g	0.05	0.05	0.05	< 0.05
1,1,1-Trichloroethane	µg/g	0.05	0.38	3.4	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.061	0.52	< 0.05
Trichlorofluoromethane	µg/g	0.05	4	5.8	< 0.05
Vinyl Chloride	µg/g	0.02	0.02	0.022	< 0.02

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED L1	REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED L2
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BH21-11/SS1

Zinc	EPA 3050/EPA 200.8	µg/g	710	340	340
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HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

BH21-3/SS1	EWL0121-MAR21	9	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-8/SS1	EWL0121-MAR21	12	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-9/SS2	EWL0121-MAR21	15	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-10/SS1	EWL0121-MAR21	18	02/21/2021	03/01/2021	03/05/2021	03/08/2021	03/21/2021	03/08/2021
BH21-11/SS1	EWL0121-MAR21	21	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/24/2021	03/08/2021
BH21-12/SS1	EWL0121-MAR21	22	02/25/2021	03/01/2021	03/05/2021	03/08/2021	03/25/2021	03/08/2021
BH21-13/SS1	EWL0121-MAR21	24	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/24/2021	03/08/2021
BH21-14/SS1	EWL0121-MAR21	26	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/24/2021	03/08/2021
BH21-15/SS1	EWL0121-MAR21	30	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/24/2021	03/08/2021

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

BH21-3/SS1	SKA5007-MAR21	9	02/26/2021	03/01/2021			03/12/2021	03/04/2021
BH21-8/SS1	SKA5007-MAR21	12	02/26/2021	03/01/2021			03/12/2021	03/04/2021
BH21-9/SS2	SKA5007-MAR21	15	02/26/2021	03/01/2021			03/12/2021	03/04/2021
BH21-10/SS1	SKA5007-MAR21	18	02/21/2021	03/01/2021			03/07/2021	03/04/2021
BH21-11/SS1	SKA5007-MAR21	21	02/24/2021	03/01/2021			03/10/2021	03/04/2021
BH21-12/SS1	SKA5007-MAR21	22	02/25/2021	03/01/2021			03/11/2021	03/04/2021
BH21-13/SS1	SKA5007-MAR21	24	02/24/2021	03/01/2021			03/10/2021	03/04/2021
BH21-14/SS1	SKA5007-MAR21	26	02/24/2021	03/01/2021			03/10/2021	03/04/2021
BH21-15/SS1	SKA5007-MAR21	30	02/24/2021	03/01/2021			03/10/2021	03/04/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

BH21-3/SS1	SKA5024-MAR21	9	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/28/2021	03/08/2021
BH21-8/SS1	SKA5024-MAR21	12	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/28/2021	03/08/2021
BH21-9/SS2	SKA5024-MAR21	15	02/26/2021	03/01/2021	03/05/2021	03/08/2021	03/28/2021	03/08/2021
BH21-10/SS1	SKA5024-MAR21	18	02/21/2021	03/01/2021	03/05/2021	03/08/2021	03/23/2021	03/08/2021
BH21-11/SS1	SKA5024-MAR21	21	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-12/SS1	SKA5024-MAR21	22	02/25/2021	03/01/2021	03/05/2021	03/08/2021	03/27/2021	03/08/2021
BH21-13/SS1	SKA5024-MAR21	24	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-14/SS1	SKA5024-MAR21	26	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021
BH21-15/SS1	SKA5024-MAR21	30	02/24/2021	03/01/2021	03/05/2021	03/08/2021	03/26/2021	03/08/2021

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

BH21-3/SS1	EMS0018-MAR21	9	02/26/2021	03/01/2021	03/03/2021	03/05/2021	03/26/2021	03/05/2021
BH21-8/SS1	EMS0018-MAR21	12	02/26/2021	03/01/2021	03/03/2021	03/05/2021	03/26/2021	03/05/2021
BH21-9/SS2	EMS0018-MAR21	15	02/26/2021	03/01/2021	03/03/2021	03/05/2021	03/26/2021	03/05/2021
BH21-10/SS1	EMS0018-MAR21	18	02/21/2021	03/01/2021	03/03/2021	03/05/2021	03/21/2021	03/05/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Mercury by CVAAS (continued)

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

BH21-11/SS1	EMS0018-MAR21	21	02/24/2021	03/01/2021	03/03/2021	03/05/2021	03/24/2021	03/05/2021
BH21-12/SS1	EMS0018-MAR21	22	02/25/2021	03/01/2021	03/03/2021	03/05/2021	03/25/2021	03/05/2021
BH21-13/SS1	EMS0018-MAR21	24	02/24/2021	03/01/2021	03/03/2021	03/05/2021	03/24/2021	03/05/2021
BH21-14/SS1	EMS0018-MAR21	26	02/24/2021	03/01/2021	03/03/2021	03/05/2021	03/24/2021	03/05/2021
BH21-15/SS1	EMS0018-MAR21	30	02/24/2021	03/01/2021	03/03/2021	03/05/2021	03/24/2021	03/05/2021

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-003

BH21-3/SS1	ESG0014-MAR21	9	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-8/SS1	ESG0014-MAR21	12	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-9/SS2	ESG0014-MAR21	15	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-10/SS1	ESG0014-MAR21	18	02/21/2021	03/01/2021	03/05/2021	03/08/2021	08/20/2021	03/08/2021
BH21-11/SS1	ESG0014-MAR21	21	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-12/SS1	ESG0014-MAR21	22	02/25/2021	03/01/2021	03/05/2021	03/08/2021	08/24/2021	03/08/2021
BH21-13/SS1	ESG0014-MAR21	24	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-14/SS1	ESG0014-MAR21	26	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-15/SS1	ESG0014-MAR21	30	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-3/SS1	EMS0018-MAR21	9	02/26/2021	03/01/2021	03/03/2021	03/05/2021	08/25/2021	03/05/2021
BH21-8/SS1	EMS0018-MAR21	12	02/26/2021	03/01/2021	03/03/2021	03/05/2021	08/25/2021	03/05/2021
BH21-9/SS2	EMS0018-MAR21	15	02/26/2021	03/01/2021	03/03/2021	03/05/2021	08/25/2021	03/05/2021
BH21-10/SS1	EMS0018-MAR21	18	02/21/2021	03/01/2021	03/03/2021	03/05/2021	08/20/2021	03/05/2021
BH21-11/SS1	EMS0018-MAR21	21	02/24/2021	03/01/2021	03/03/2021	03/05/2021	08/23/2021	03/05/2021
BH21-12/SS1	EMS0018-MAR21	22	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
BH21-13/SS1	EMS0018-MAR21	24	02/24/2021	03/01/2021	03/03/2021	03/05/2021	08/23/2021	03/05/2021
BH21-14/SS1	EMS0018-MAR21	26	02/24/2021	03/01/2021	03/03/2021	03/05/2021	08/23/2021	03/05/2021
BH21-15/SS1	EMS0018-MAR21	30	02/24/2021	03/01/2021	03/03/2021	03/05/2021	08/23/2021	03/05/2021
GS1	EMS0018-MAR21	33	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS2	EMS0018-MAR21	34	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS3	EMS0018-MAR21	35	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS4	EMS0018-MAR21	36	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS5	EMS0018-MAR21	37	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS6	EMS0018-MAR21	38	03/01/2021	03/01/2021	03/03/2021	03/05/2021	08/28/2021	03/05/2021
GS7	EMS0018-MAR21	39	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS8	EMS0018-MAR21	40	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021
GS9	EMS0018-MAR21	41	02/26/2021	03/01/2021	03/03/2021	03/05/2021	08/25/2021	03/05/2021
GS10	EMS0018-MAR21	42	02/25/2021	03/01/2021	03/03/2021	03/05/2021	08/24/2021	03/05/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-3/SS1	GCM0054-MAR21	9	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-3/SS2	GCM0054-MAR21	10	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-3/SS3	GCM0054-MAR21	11	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-8/SS1	GCM0054-MAR21	12	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-8/SS2	GCM0054-MAR21	13	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-9/SS1	GCM0054-MAR21	14	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-9/SS2	GCM0054-MAR21	15	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-9/SS3	GCM0054-MAR21	16	02/26/2021	03/01/2021			04/27/2021	03/04/2021
BH21-9/SS6	GCM0054-MAR21	17	02/21/2021	03/01/2021			04/22/2021	03/04/2021
BH21-10/SS1	GCM0054-MAR21	18	02/21/2021	03/01/2021			04/22/2021	03/04/2021
BH21-10/SS2	GCM0054-MAR21	19	02/21/2021	03/01/2021			04/22/2021	03/04/2021
BH21-10/SS3	GCM0054-MAR21	20	02/21/2021	03/01/2021			04/22/2021	03/04/2021
BH21-11/SS1	GCM0054-MAR21	21	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-12/SS1	GCM0054-MAR21	22	02/25/2021	03/01/2021			04/26/2021	03/04/2021
BH21-12/SS2	GCM0054-MAR21	23	02/25/2021	03/01/2021			04/26/2021	03/04/2021
BH21-13/SS1	GCM0054-MAR21	24	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-13/SS2	GCM0054-MAR21	25	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-14/SS1	GCM0054-MAR21	26	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-14/SS2	GCM0054-MAR21	27	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-14/SS3	GCM0054-MAR21	28	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-14/SS4	GCM0054-MAR21	29	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-15/SS1	GCM0054-MAR21	30	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-15/SS3	GCM0054-MAR21	31	02/24/2021	03/01/2021			04/25/2021	03/04/2021
BH21-15/SS7	GCM0054-MAR21	32	02/24/2021	03/01/2021			04/25/2021	03/04/2021
GS1	GCM0054-MAR21	33	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS2	GCM0054-MAR21	34	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS3	GCM0054-MAR21	35	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS4	GCM0054-MAR21	36	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS5	GCM0054-MAR21	37	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS6	GCM0054-MAR21	38	03/01/2021	03/01/2021			04/30/2021	03/04/2021
GS7	GCM0054-MAR21	39	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS8	GCM0054-MAR21	40	02/25/2021	03/01/2021			04/26/2021	03/04/2021
GS9	GCM0054-MAR21	41	02/26/2021	03/01/2021			04/27/2021	03/04/2021
GS10	GCM0054-MAR21	42	02/25/2021	03/01/2021			04/26/2021	03/04/2021
Dup01	GCM0054-MAR21	43	02/24/2021	03/01/2021			04/25/2021	03/04/2021
Dup02	GCM0054-MAR21	44	02/24/2021	03/01/2021			04/25/2021	03/04/2021
Dup03	GCM0054-MAR21	45	02/24/2021	03/01/2021			04/25/2021	03/04/2021
Dup04	GCM0054-MAR21	46	02/24/2021	03/01/2021			04/25/2021	03/04/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Moisture (continued)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

Dup05	GCM0054-MAR21	47	03/26/2021	03/01/2021			05/25/2021	03/04/2021
Dup06	GCM0054-MAR21	48	03/25/2021	03/01/2021			05/24/2021	03/04/2021

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

GS1	GCM0109-MAR21	33	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS2	GCM0109-MAR21	34	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS3	GCM0109-MAR21	35	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS4	GCM0109-MAR21	36	02/25/2021	03/01/2021	03/08/2021	03/08/2021	04/06/2021	03/09/2021
GS5	GCM0109-MAR21	37	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS6	GCM0109-MAR21	38	03/01/2021	03/01/2021	03/08/2021	03/08/2021	03/15/2021	03/09/2021
GS7	GCM0109-MAR21	39	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS8	GCM0109-MAR21	40	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
GS9	GCM0109-MAR21	41	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/12/2021	03/09/2021
GS10	GCM0109-MAR21	42	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/11/2021	03/09/2021
Dup06	GCM0109-MAR21	48	03/25/2021	03/01/2021	03/08/2021	03/08/2021	05/04/2021	03/09/2021

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-3/SS2	GCM0083-MAR21	10	02/26/2021	03/01/2021			03/12/2021	03/08/2021
BH21-8/SS2	GCM0083-MAR21	13	02/26/2021	03/01/2021			03/12/2021	03/08/2021
BH21-9/SS3	GCM0083-MAR21	16	02/26/2021	03/01/2021			03/12/2021	03/08/2021
BH21-10/SS2	GCM0083-MAR21	19	02/21/2021	03/01/2021			03/07/2021	03/08/2021
BH21-12/SS2	GCM0083-MAR21	23	02/25/2021	03/01/2021			03/11/2021	03/08/2021
BH21-14/SS3	GCM0083-MAR21	28	02/24/2021	03/01/2021			03/10/2021	03/08/2021
BH21-15/SS7	GCM0083-MAR21	32	02/24/2021	03/01/2021			03/10/2021	03/08/2021
Dup01	GCM0083-MAR21	43	02/24/2021	03/01/2021			03/10/2021	03/08/2021
Dup04	GCM0083-MAR21	46	02/24/2021	03/01/2021			03/10/2021	03/08/2021
Dup05	GCM0083-MAR21	47	03/26/2021	03/01/2021			04/09/2021	03/08/2021

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-3/SS2	GCM0066-MAR21	10	02/26/2021	03/01/2021			04/07/2021	03/05/2021
BH21-8/SS2	GCM0066-MAR21	13	02/26/2021	03/01/2021			03/12/2021	03/05/2021
BH21-9/SS3	GCM0066-MAR21	16	02/26/2021	03/01/2021			03/12/2021	03/05/2021
BH21-10/SS2	GCM0066-MAR21	19	02/21/2021	03/01/2021			03/07/2021	03/05/2021
BH21-12/SS2	GCM0066-MAR21	23	02/25/2021	03/01/2021			03/11/2021	03/05/2021
BH21-14/SS3	GCM0066-MAR21	28	02/24/2021	03/01/2021			03/10/2021	03/05/2021
BH21-15/SS7	GCM0066-MAR21	32	02/24/2021	03/01/2021			04/05/2021	03/05/2021
Dup01	GCM0066-MAR21	43	02/24/2021	03/01/2021			03/10/2021	03/05/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Petroleum Hydrocarbons (F2-F4) (continued)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

Dup04	GCM0066-MAR21	46	02/24/2021	03/01/2021			04/05/2021	03/05/2021
Dup05	GCM0066-MAR21	47	03/26/2021	03/01/2021			04/09/2021	03/05/2021

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-001

BH21-3/SS1	ARD0023-MAR21	9	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/28/2021	03/08/2021
BH21-3/SS3	ARD0023-MAR21	11	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/28/2021	03/08/2021
BH21-8/SS1	ARD0023-MAR21	12	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/28/2021	03/08/2021
BH21-9/SS2	ARD0023-MAR21	15	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/28/2021	03/08/2021
BH21-10/SS1	ARD0023-MAR21	18	02/21/2021	03/01/2021	03/08/2021	03/08/2021	03/23/2021	03/08/2021
BH21-10/SS3	ARD0023-MAR21	20	02/21/2021	03/01/2021	03/08/2021	03/08/2021	03/23/2021	03/08/2021
BH21-11/SS1	ARD0023-MAR21	21	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/26/2021	03/08/2021
BH21-12/SS1	ARD0023-MAR21	22	02/25/2021	03/01/2021	03/08/2021	03/08/2021	03/27/2021	03/08/2021
BH21-13/SS1	ARD0023-MAR21	24	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/26/2021	03/08/2021
BH21-14/SS1	ARD0023-MAR21	26	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/26/2021	03/08/2021
BH21-15/SS1	ARD0023-MAR21	30	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/26/2021	03/08/2021
BH21-15/SS3	ARD0023-MAR21	31	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/26/2021	03/08/2021

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

BH21-3/SS1	GCM0111-MAR21	9	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/12/2021	03/09/2021
BH21-8/SS1	GCM0111-MAR21	12	02/26/2021	03/01/2021	03/08/2021	03/08/2021	04/27/2021	03/09/2021
BH21-9/SS1	GCM0111-MAR21	14	02/26/2021	03/01/2021	03/08/2021	03/08/2021	03/12/2021	03/09/2021
BH21-10/SS1	GCM0111-MAR21	18	02/21/2021	03/01/2021	03/08/2021	03/08/2021 †	03/07/2021	03/09/2021
BH21-14/SS2	GCM0111-MAR21	27	02/24/2021	03/01/2021	03/08/2021	03/08/2021	03/10/2021	03/09/2021
BH21-15/SS1	GCM0111-MAR21	30	02/24/2021	03/01/2021	03/08/2021	03/08/2021	04/25/2021	03/09/2021

Sodium adsorption ratio (SAR)

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-[ENV]ARD-LAK-AN-021

BH21-3/SS1	ESG0014-MAR21	9	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-8/SS1	ESG0014-MAR21	12	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-9/SS2	ESG0014-MAR21	15	02/26/2021	03/01/2021	03/05/2021	03/08/2021	08/25/2021	03/08/2021
BH21-10/SS1	ESG0014-MAR21	18	02/21/2021	03/01/2021	03/05/2021	03/08/2021	08/20/2021	03/08/2021
BH21-11/SS1	ESG0014-MAR21	21	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-12/SS1	ESG0014-MAR21	22	02/25/2021	03/01/2021	03/05/2021	03/08/2021	08/24/2021	03/08/2021
BH21-13/SS1	ESG0014-MAR21	24	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-14/SS1	ESG0014-MAR21	26	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021
BH21-15/SS1	ESG0014-MAR21	30	02/24/2021	03/01/2021	03/05/2021	03/08/2021	08/23/2021	03/08/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

BH21-3/SS2	GCM0082-MAR21	10	02/26/2021	03/01/2021	03/05/2021	03/05/2021	03/12/2021	03/08/2021
BH21-3/SS3	GCM0082-MAR21	11	02/26/2021	03/01/2021	03/05/2021	03/05/2021	03/12/2021	03/08/2021
BH21-8/SS2	GCM0082-MAR21	13	02/26/2021	03/01/2021	03/05/2021	03/05/2021	03/12/2021	03/08/2021
BH21-9/SS3	GCM0082-MAR21	16	02/26/2021	03/01/2021	03/05/2021	03/05/2021	03/12/2021	03/08/2021
BH21-9/SS6	GCM0082-MAR21	17	02/21/2021	03/01/2021	03/05/2021	03/05/2021	03/07/2021	03/08/2021
BH21-10/SS2	GCM0082-MAR21	19	02/21/2021	03/01/2021	03/05/2021	03/05/2021	03/07/2021	03/08/2021
BH21-12/SS2	GCM0082-MAR21	23	02/25/2021	03/01/2021	03/05/2021	03/05/2021	03/11/2021	03/08/2021
BH21-13/SS2	GCM0082-MAR21	25	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
BH21-14/SS3	GCM0082-MAR21	28	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
BH21-14/SS4	GCM0082-MAR21	29	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
BH21-15/SS7	GCM0082-MAR21	32	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
Dup01	GCM0082-MAR21	43	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
Dup02	GCM0082-MAR21	44	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
Dup03	GCM0082-MAR21	45	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
Dup04	GCM0082-MAR21	46	02/24/2021	03/01/2021	03/05/2021	03/05/2021	03/10/2021	03/08/2021
Dup05	GCM0082-MAR21	47	03/26/2021	03/01/2021	03/05/2021	03/05/2021	04/09/2021	03/08/2021

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-[ENV] SPE-LAK-AN-003

BH21-3/SS1	ESG0007-MAR21	9	02/26/2021	03/01/2021	03/04/2021	03/04/2021	08/25/2021	03/04/2021
BH21-8/SS1	ESG0007-MAR21	12	02/26/2021	03/01/2021	03/04/2021	03/04/2021	08/25/2021	03/04/2021
BH21-9/SS2	ESG0007-MAR21	15	02/26/2021	03/01/2021	03/04/2021	03/04/2021	08/25/2021	03/04/2021
BH21-10/SS1	ESG0007-MAR21	18	02/21/2021	03/01/2021	03/04/2021	03/04/2021	08/20/2021	03/04/2021
BH21-11/SS1	ESG0007-MAR21	21	02/24/2021	03/01/2021	03/04/2021	03/04/2021	08/23/2021	03/04/2021
BH21-12/SS1	ESG0007-MAR21	22	02/25/2021	03/01/2021	03/04/2021	03/04/2021	08/24/2021	03/04/2021
BH21-13/SS1	ESG0007-MAR21	24	02/24/2021	03/01/2021	03/04/2021	03/04/2021	08/23/2021	03/04/2021
BH21-14/SS1	ESG0007-MAR21	26	02/24/2021	03/01/2021	03/04/2021	03/04/2021	08/23/2021	03/04/2021
BH21-15/SS1	ESG0007-MAR21	30	02/24/2021	03/01/2021	03/04/2021	03/04/2021	08/23/2021	03/04/2021



FINAL REPORT

CA14032-MAR21 R

QC SUMMARY

Conductivity

Method: EPA 6010/SM 2510 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Conductivity	EWL0121-MAR21	mS/cm	0.002	<0.002	2	10	99	90	110	NA		

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Free Cyanide	SKA5007-MAR21	µg/g	0.05	<0.05	ND	20	100	80	120	100	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA5024-MAR21	ug/g	0.2	<0.2	ND	20	90	80	120	88	75	125



FINAL REPORT

CA14032-MAR21 R

QC SUMMARY

Mercury by CVAAS

Method: EPA 7471A/EPA 245 | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	EMS0018-MAR21	ug/g	0.05	<0.05	ND	20	105	80	120	94	70	130

Metals in aqueous samples - ICP-OES

Method: MOE 4696e01/EPA 6010 | Internal ref.: ME-CA-IENVISPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
SAR Calcium	ESG0014-MAR21	mg/L	0.09	<0.09	8	20	97	80	120	NV	70	130
SAR Magnesium	ESG0014-MAR21	mg/L	0.02	<0.02	8	20	94	80	120	74	70	130
SAR Sodium	ESG0014-MAR21	mg/L	0.15	<0.15	8	20	94	80	120	NV	70	130

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0018-MAR21	ug/g	0.05	<0.05	ND	20	100	70	130	104	70	130
Arsenic	EMS0018-MAR21	µg/g	0.5	<0.5	1	20	97	70	130	90	70	130
Barium	EMS0018-MAR21	ug/g	0.1	<0.1	5	20	107	70	130	97	70	130
Beryllium	EMS0018-MAR21	µg/g	0.02	<0.02	1	20	92	70	130	95	70	130
Boron	EMS0018-MAR21	µg/g	1	<1	2	20	106	70	130	102	70	130
Cadmium	EMS0018-MAR21	µg/g	0.02	<0.02	9	20	100	70	130	100	70	130
Cobalt	EMS0018-MAR21	µg/g	0.01	<0.01	4	20	103	70	130	102	70	130
Chromium	EMS0018-MAR21	µg/g	0.5	<0.5	1	20	104	70	130	104	70	130
Copper	EMS0018-MAR21	µg/g	0.1	<0.1	1	20	104	70	130	102	70	130
Molybdenum	EMS0018-MAR21	µg/g	0.1	<0.1	9	20	93	70	130	101	70	130
Nickel	EMS0018-MAR21	ug/g	0.5	<0.5	2	20	102	70	130	102	70	130
Lead	EMS0018-MAR21	ug/g	0.1	<0.1	3	20	103	70	130	104	70	130
Antimony	EMS0018-MAR21	µg/g	0.8	<0.8	ND	20	100	70	130	81	70	130
Selenium	EMS0018-MAR21	µg/g	0.7	<0.7	ND	20	104	70	130	101	70	130
Thallium	EMS0018-MAR21	µg/g	0.02	<0.02	5	20	104	70	130	100	70	130
Uranium	EMS0018-MAR21	µg/g	0.002	<0.002	1	20	103	70	130	99	70	130
Vanadium	EMS0018-MAR21	µg/g	3	<3	2	20	105	70	130	104	70	130
Zinc	EMS0018-MAR21	µg/g	0.7	<0.7	3	20	102	70	130	98	70	130

QC SUMMARY

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-018

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Aldrin	GCM0109-MAR21	µg/g	0.05	< 0.05	ND	40	98	50	140	88	50	140
alpha-Chlordane	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	99	50	140	91	50	140
Dieldrin	GCM0109-MAR21	µg/g	0.05	< 0.05	ND	40	99	50	140	90	50	140
Endosulfan I	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	100	50	140	92	50	140
Endosulfan II	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	97	50	140	88	50	140
Endrin	GCM0109-MAR21	µg/g	0.04	< 0.04	ND	40	104	50	140	103	50	140
gamma-BHC	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	101	50	140	86	50	140
gamma-Chlordane	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	98	50	140	88	50	140
Heptachlor epoxide	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	98	50	140	90	50	140
Heptachlor	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	97	50	140	89	50	140
Hexachlorobenzene	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	99	50	140	84	50	140
Hexachlorobutadiene	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	96	50	140	79	50	140
Hexachloroethane	GCM0109-MAR21	µg/g	0.01	< 0.01	ND	40	94	50	140	76	50	140
Methoxychlor	GCM0109-MAR21	µg/g	0.05	< 0.05	ND	40	111	50	140	107	50	140
o,p-DDD	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	95	50	140	92	50	140
o,p-DDE	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	100	50	140	90	50	140
op-DDT	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	99	50	140	87	50	140
pp-DDD	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	92	50	140	96	50	140
pp-DDE	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	101	50	140	89	50	140
pp-DDT	GCM0109-MAR21	µg/g	0.02	< 0.02	ND	40	109	50	140	100	50	140

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0083-MAR21	µg/g	10	<10	ND	30	102	80	120	104	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0066-MAR21	µg/g	10	<10	ND	30	104	80	120	106	60	140
F3 (C16-C34)	GCM0066-MAR21	µg/g	50	<50	ND	30	104	80	120	106	60	140
F4 (C34-C50)	GCM0066-MAR21	µg/g	50	<50	ND	30	104	80	120	106	60	140



FINAL REPORT

CA14032-MAR21 R

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-001

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	ARD0023-MAR21	pH Units	0.05		0	20	100	80	120			

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	95	50	140	92	50	140
2-Methylnaphthalene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Acenaphthene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	103	50	140	102	50	140
Acenaphthylene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	100	50	140	97	50	140
Anthracene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	99	50	140	97	50	140
Benzo(a)anthracene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	97	50	140	98	50	140
Benzo(a)pyrene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	88	50	140	85	50	140
Benzo(b+j)fluoranthene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	99	50	140	94	50	140
Benzo(ghi)perylene	GCM0111-MAR21	µg/g	0.1	< 0.1	ND	40	97	50	140	94	50	140
Benzo(k)fluoranthene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	96	50	140	92	50	140
Chrysene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	100	50	140	101	50	140
Dibenzo(a,h)anthracene	GCM0111-MAR21	µg/g	0.06	< 0.06	ND	40	100	50	140	98	50	140
Fluoranthene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	99	50	140	103	50	140
Fluorene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	100	50	140	102	50	140
Indeno(1,2,3-cd)pyrene	GCM0111-MAR21	µg/g	0.1	< 0.1	ND	40	102	50	140	96	50	140
Naphthalene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	95	50	140	95	50	140
Phenanthrene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	99	50	140	95	50	140
Pyrene	GCM0111-MAR21	µg/g	0.05	< 0.05	ND	40	96	50	140	99	50	140

QC SUMMARY

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	98	60	130	112	50	140
1,1,1-Trichloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	108	50	140
1,1,2,2-Tetrachloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	97	60	130	110	50	140
1,1,2-Trichloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	109	50	140
1,1-Dichloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	97	60	130	106	50	140
1,1-Dichloroethylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	91	60	130	84	50	140
1,2-Dichlorobenzene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	111	50	140
1,2-Dichloroethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	108	50	140
1,2-Dichloropropane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	107	50	140
1,3-Dichlorobenzene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	111	50	140
1,4-Dichlorobenzene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	109	50	140
Acetone	GCM0082-MAR21	µg/g	0.5	< 0.5	ND	50	93	50	140	113	50	140
Benzene	GCM0082-MAR21	µg/g	0.02	< 0.02	ND	50	94	60	130	107	50	140
Bromodichloromethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	106	50	140
Bromoform	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	93	60	130	102	50	140
Bromomethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	87	50	140	82	50	140
Carbon tetrachloride	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	106	50	140
Chlorobenzene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	109	50	140
Chloroform	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	108	50	140
cis-1,2-Dichloroethylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	108	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-dichloropropene	GCM0082-MAR21	µg/g	0.03	< 0.03	ND	50	95	60	130	99	50	140
Dibromochloromethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	107	50	140
Dichlorodifluoromethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	75	50	140	69	50	140
Ethylbenzene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	98	60	130	111	50	140
Ethylenedibromide	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	97	60	130	110	50	140
n-Hexane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	97	60	130	85	50	140
m/p-xylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	93	60	130	107	50	140
Methyl ethyl ketone	GCM0082-MAR21	µg/g	0.5	< 0.5	ND	50	95	50	140	103	50	140
Methyl isobutyl ketone	GCM0082-MAR21	µg/g	0.5	< 0.5	ND	50	95	50	140	104	50	140
Methyl-t-butyl Ether	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	104	50	140
Methylene Chloride	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	103	50	140
o-xylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	97	60	130	111	50	140
Styrene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	109	50	140
Tetrachloroethylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	108	50	140
Toluene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	96	60	130	108	50	140
trans-1,2-Dichloroethylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	103	50	140
trans-1,3-dichloropropene	GCM0082-MAR21	µg/g	0.03	< 0.03	ND	50	96	60	130	101	50	140
Trichloroethylene	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	95	60	130	109	50	140
Trichlorofluoromethane	GCM0082-MAR21	µg/g	0.05	< 0.05	ND	50	94	50	140	108	50	140
Vinyl Chloride	GCM0082-MAR21	µg/g	0.02	< 0.02	ND	50	83	50	140	86	50	140



FINAL REPORT

CA14032-MAR21 R

QC SUMMARY

Water Soluble Boron

Method: O.Reg. 15 3/04 | Internal ref.: ME-CA-IENV1 SPE-LAK-AN-003

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Water Soluble Boron	ESG0007-MAR21	µg/g	0.5	<0.5	ND	20	93	80	120	108	70	130

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --



FINAL REPORT

CA14381-MAR21 R

19-323-100, Polermo Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Brad Moore Hon. B.Sc
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Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	brad.moore@sgs.com
Project	19-323-100, Polermo Village	SGS Reference	CA14381-MAR21
Order Number		Received	03/11/2021
Samples	Soil (1)	Approved	03/15/2021
		Report Number	CA14381-MAR21 R
		Date Reported	03/15/2021

COMMENTS

Temperature of Sample upon Receipt: 4 degrees C
 Cooling Agent Present: Yes
 Custody Seal Present: Yes

Chain of Custody Number: 019796

SIGNATORIES

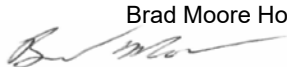
Brad Moore Hon. B.Sc


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FINAL REPORT

CA14381-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number 9
Sample Name BH21-11/SS1
Sample Matrix Soil
Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Hydrides					
Antimony	µg/g	0.8	7.5	7.5	< 0.8
Arsenic	µg/g	0.5	18	18	6.5
Selenium	µg/g	0.7	2.4	2.4	< 0.7

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number 9
Sample Name BH21-11/SS1
Sample Matrix Soil
Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Metals and Inorganics					
Moisture Content	%	-			25.5
Barium	µg/g	0.1	390	390	180
Beryllium	µg/g	0.02	4	5	0.52
Boron	µg/g	1	120	120	7
Cadmium	µg/g	0.02	1.2	1.2	0.39
Chromium	µg/g	0.5	160	160	18
Cobalt	µg/g	0.01	22	22	9.4
Copper	µg/g	0.1	140	180	120
Lead	µg/g	0.1	120	120	150
Molybdenum	µg/g	0.1	6.9	6.9	0.8
Nickel	µg/g	0.5	100	130	22
Silver	µg/g	0.05	20	25	0.05



FINAL REPORT

CA14381-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Metals and Inorganics**

(SOIL)

Sample Number 9

Sample Name BH21-11/SS1

Sample Matrix Soil

Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Metals and Inorganics (continued)					
Thallium	µg/g	0.02	1	1	0.09
Uranium	µg/g	0.002	23	23	0.55
Vanadium	µg/g	3	86	86	22
Zinc	µg/g	0.7	340	340	1600

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 2 - Residential/Parkland - UNDEFINED L1	REG153 / SOIL / FINE - TABLE 2 - Residential/Parkland - UNDEFINED L2
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BH21-11/SS1

Lead	EPA 3050/EPA 200.8	µg/g	150	120	120
Zinc	EPA 3050/EPA 200.8	µg/g	1600	340	340

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-11/SS1	EMS0072-MAR21	9	02/24/2021	03/11/2021	03/12/2021	03/12/2021	08/23/2021	03/15/2021
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Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-11/SS1	GCM0196-MAR21	9	02/24/2021	03/11/2021	03/12/2021	03/13/2021	04/25/2021	03/15/2021
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QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0072-MAR21	ug/g	0.05	<0.05	ND	20	100	70	130	107	70	130
Arsenic	EMS0072-MAR21	µg/g	0.5	<0.5	5	20	99	70	130	97	70	130
Barium	EMS0072-MAR21	ug/g	0.1	<0.1	5	20	105	70	130	96	70	130
Beryllium	EMS0072-MAR21	µg/g	0.02	<0.02	7	20	97	70	130	93	70	130
Boron	EMS0072-MAR21	µg/g	1	<1	12	20	108	70	130	93	70	130
Cadmium	EMS0072-MAR21	µg/g	0.02	<0.02	13	20	97	70	130	99	70	130
Cobalt	EMS0072-MAR21	µg/g	0.01	<0.01	0	20	98	70	130	99	70	130
Chromium	EMS0072-MAR21	µg/g	0.5	<0.5	1	20	100	70	130	100	70	130
Copper	EMS0072-MAR21	µg/g	0.1	<0.1	6	20	99	70	130	99	70	130
Molybdenum	EMS0072-MAR21	µg/g	0.1	<0.1	20	20	105	70	130	95	70	130
Nickel	EMS0072-MAR21	ug/g	0.5	<0.5	0	20	95	70	130	96	70	130
Lead	EMS0072-MAR21	ug/g	0.1	<0.1	6	20	100	70	130	97	70	130
Antimony	EMS0072-MAR21	µg/g	0.8	<0.8	ND	20	99	70	130	71	70	130
Selenium	EMS0072-MAR21	µg/g	0.7	<0.7	ND	20	100	70	130	97	70	130
Thallium	EMS0072-MAR21	µg/g	0.02	<0.02	3	20	100	70	130	94	70	130
Uranium	EMS0072-MAR21	µg/g	0.002	<0.002	4	20	99	70	130	93	70	130
Vanadium	EMS0072-MAR21	µg/g	3	<3	1	20	99	70	130	97	70	130
Zinc	EMS0072-MAR21	µg/g	0.7	<0.7	ND	20	98	70	130	98	70	130

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

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FINAL REPORT

CA15971-MAR21 R

19-323-100, Palermo Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants
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 Project 19-323-100, Palermo Village
 Order Number
 Samples soil (2)

LABORATORY DETAILS

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 Laboratory SGS Canada Inc.
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 SGS Reference CA15971-MAR21
 Received 03/18/2021
 Approved 03/24/2021
 Report Number CA15971-MAR21 R
 Date Reported 03/24/2021

COMMENTS

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

Temperature of Sample upon Receipt: 4 degrees C

Cooling Agent Present:Yes

Custody Seal Present:Yes

Chain of Custody Number:019787

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA15971-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Hydrides (SOIL)**

Sample Number 8

Sample Name BH21-11/SS2

Sample Matrix soil

Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Hydrides					
Antimony	µg/g	0.8	1.3	1.3	< 0.8
Arsenic	µg/g	0.5	18	18	4.5
Selenium	µg/g	0.7	1.5	1.5	< 0.7

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number 8

Sample Name BH21-11/SS2

Sample Matrix soil

Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Metals and Inorganics					
Barium	µg/g	0.1	220	220	99
Beryllium	µg/g	0.02	2.5	2.5	0.56
Boron	µg/g	1	36	36	7
Cadmium	µg/g	0.02	1.2	1.2	0.11
Chromium	µg/g	0.5	70	70	19
Cobalt	µg/g	0.01	21	21	12
Copper	µg/g	0.1	92	92	27
Lead	µg/g	0.1	120	120	11
Molybdenum	µg/g	0.1	2	2	0.4
Nickel	µg/g	0.5	82	82	26
Silver	µg/g	0.05	0.5	0.5	< 0.05
Thallium	µg/g	0.02	1	1	0.15



FINAL REPORT

CA15971-MAR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Metals and Inorganics**

(SOIL)

Sample Number 8

Sample Name BH21-11/SS2

Sample Matrix soil

Sample Date 24/02/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result
Metals and Inorganics (continued)					
Uranium	µg/g	0.002	2.5	2.5	0.54
Vanadium	µg/g	3	86	86	24
Zinc	µg/g	0.7	290	290	59

EXCEEDANCE SUMMARY

No exceedances are present above the regulatory limit(s) indicated

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
-------------	--------------------	---------------	---------	----------	---------------------	----------	--------------	----------

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-11/SS2	EMS0129-MAR21	8	02/24/2021	03/18/2021	03/23/2021	03/23/2021	08/23/2021	03/24/2021
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FINAL REPORT

CA15971-MAR21 R

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0129-MAR21	ug/g	0.05	<0.05	ND	20	95	70	130	96	70	130
Arsenic	EMS0129-MAR21	µg/g	0.5	<0.5	12	20	106	70	130	100	70	130
Barium	EMS0129-MAR21	ug/g	0.1	<0.1	1	20	110	70	130	99	70	130
Beryllium	EMS0129-MAR21	µg/g	0.02	<0.02	7	20	100	70	130	94	70	130
Boron	EMS0129-MAR21	µg/g	1	<1	13	20	101	70	130	93	70	130
Cadmium	EMS0129-MAR21	µg/g	0.02	<0.02	10	20	104	70	130	102	70	130
Cobalt	EMS0129-MAR21	µg/g	0.01	<0.01	2	20	106	70	130	104	70	130
Chromium	EMS0129-MAR21	µg/g	0.5	<0.5	0	20	106	70	130	102	70	130
Copper	EMS0129-MAR21	µg/g	0.1	<0.1	8	20	106	70	130	102	70	130
Molybdenum	EMS0129-MAR21	µg/g	0.1	<0.1	4	20	96	70	130	93	70	130
Nickel	EMS0129-MAR21	ug/g	0.5	<0.5	0	20	104	70	130	102	70	130
Lead	EMS0129-MAR21	µg/g	0.1	<0.1	3	20	105	70	130	99	70	130
Antimony	EMS0129-MAR21	µg/g	0.8	<0.8	ND	20	101	70	130	76	70	130
Selenium	EMS0129-MAR21	µg/g	0.7	<0.7	ND	20	105	70	130	99	70	130
Thallium	EMS0129-MAR21	µg/g	0.02	<0.02	10	20	106	70	130	96	70	130
Uranium	EMS0129-MAR21	µg/g	0.002	<0.002	5	20	107	70	130	104	70	130
Vanadium	EMS0129-MAR21	µg/g	3	<3	0	20	106	70	130	102	70	130
Zinc	EMS0129-MAR21	µg/g	0.7	<0.7	ND	20	103	70	130	100	70	130

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

Laboratory Information Section - Lab use only

Received By: Seetha
 Received Date: 03/18/2011 (mm/dd/yy)
 Received Time: 14:30 (hr : min)

Received By (signature): _____
 Custody Seal Present: Yes No
 Cooling Agent Present: Yes No Type: Ice
 Custom Seal Intact: Yes No
 Temperature Upon Receipt (°C): 42.4°C
 LAB LIMS #: 415921
Mar 21

REPORT INFORMATION

Company: DS Consultants
 Contact: Kirstin Olsen
 Address: 6221 Hwy 7, Unit 14
Vaughan, ON L4A0K8
 Phone: 437-928-2794
 Fax: _____

INVOICE INFORMATION

Company: DS
 Contact: Accounting
 Address: _____
 Phone: _____

Email: Kirstin.Olsen@dsconsultants.com
 REGULATIONS

Quotation #: _____
 Project #: 19-323-100
 TURNAROUND TIME (TAT) REQUIRED
 Regular TAT (5-7days)
 RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION
 Specify Due Date: _____
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS

O.Reg 153/04 O.Reg 406/19
 Table 1 Res/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium/Fine
 Table _____
 Soil Volume <350m³ >350m³
 Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PW/CO MMER
 CCME Other:
 MISA
 O.D.W.S Not Reportable - See note

ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics <small>incl CrVI, CN, Hg pH, B(HWS), EC, SAR, -soil) (Cl, Na-water)</small>							
Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>							
ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni</small>							
PAHs only							
SVOCs <small>all incl PAHs, ABNs, CPs</small>							
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
F1-F4 + BTEX							
F1-F4 only <small>no BTEX</small>							
VOCs <small>all incl BTEX</small>							
BTEX only							
Pesticides <small>Organochlorine or specify other</small>							
Appendix 2: 406/19 Leachate Screening Levels Table:							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
							Specify TCLP toxic MSL
							PCB VOC MML
							Diap ABN Ignit

COMMENTS:

RECORD OF SITE CONDITION (RSC) YES NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 BH 21-11/552	02/24/11	01M	1	SOIL
2 BH 21-11/553	02/24/11	01M	1	SOIL
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Observations/Special Instructions

Sampled By (NAME): John Gavorio Signature: John Gavorio Date: 03/18/11 (mm/dd/yy)
 Relinquished by (NAME): John Gavorio Signature: John Gavorio Date: 03/18/11 (mm/dd/yy)
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sample collection/handling and transportation of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Pink Copy - Client
 Yellow & White Copy - SGS



Your Project #: 19-323-100
 Site Location: PALERMO VILLAGE
 Your C.O.C. #: n/a

Attention: Kirstin Olsen

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

Report Date: 2021/03/24
 Report #: R6567137
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C172256

Received: 2021/03/18, 15:28

Sample Matrix: Soil
 # Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Hot Water Extractable Boron	1	2021/03/22	2021/03/22	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	1	2021/03/22	2021/03/22	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2021/03/23	2021/03/23	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2021/03/22	2021/03/23	CAM SOP-00436	EPA 3060/7199 m
Strong Acid Leachable Metals by ICPMS	1	2021/03/22	2021/03/22	CAM SOP-00447	EPA 6020B m
Moisture	1	N/A	2021/03/19	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	1	2021/03/19	2021/03/19	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2021/03/23	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, MELCC, EPA, APHA.

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

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

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

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

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

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

* 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.



Your Project #: 19-323-100
Site Location: PALERMO VILLAGE
Your C.O.C. #: n/a

Attention: Kirstin Olsen

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

Report Date: 2021/03/24
Report #: R6567137
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C172256
Received: 2021/03/18, 15:28

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
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.
BV Labs 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 Signature Page.



O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID			PCL739		
Sampling Date			2021/02/26		
COC Number			n/a		
	UNITS	Criteria	BH21-3/SS6	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	2.4	0.76		7253705
Inorganics					
Conductivity	mS/cm	0.57	0.34	0.002	7261163
Moisture	%	-	9.2	1.0	7256222
Available (CaCl2) pH	pH	-	8.00		7256785
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	7259067
Chromium (VI)	ug/g	0.66	<0.18	0.18	7259460
Metals					
Hot Water Ext. Boron (B)	ug/g	-	0.69	0.050	7259163
Acid Extractable Antimony (Sb)	ug/g	1.3	0.21	0.20	7259461
Acid Extractable Arsenic (As)	ug/g	18	6.8	1.0	7259461
Acid Extractable Barium (Ba)	ug/g	220	130	0.50	7259461
Acid Extractable Beryllium (Be)	ug/g	2.5	0.72	0.20	7259461
Acid Extractable Boron (B)	ug/g	36	21	5.0	7259461
Acid Extractable Cadmium (Cd)	ug/g	1.2	<0.10	0.10	7259461
Acid Extractable Chromium (Cr)	ug/g	70	20	1.0	7259461
Acid Extractable Cobalt (Co)	ug/g	21	13	0.10	7259461
Acid Extractable Copper (Cu)	ug/g	92	19	0.50	7259461
Acid Extractable Lead (Pb)	ug/g	120	11	1.0	7259461
Acid Extractable Molybdenum (Mo)	ug/g	2	0.95	0.50	7259461
Acid Extractable Nickel (Ni)	ug/g	82	27	0.50	7259461
Acid Extractable Selenium (Se)	ug/g	1.5	<0.50	0.50	7259461
Acid Extractable Silver (Ag)	ug/g	0.5	<0.20	0.20	7259461
Acid Extractable Thallium (Tl)	ug/g	1	0.10	0.050	7259461
Acid Extractable Uranium (U)	ug/g	2.5	0.60	0.050	7259461
Acid Extractable Vanadium (V)	ug/g	86	25	5.0	7259461
Acid Extractable Zinc (Zn)	ug/g	290	57	5.0	7259461
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	7259461
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 1: Full Depth Background Site Condition Standards					
Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use					



BV Labs Job #: C172256
 Report Date: 2021/03/24

DS Consultants Limited
 Client Project #: 19-323-100
 Site Location: PALERMO VILLAGE
 Sampler Initials: JG

TEST SUMMARY

BV Labs ID: PCL739
Sample ID: BH21-3/SS6
Matrix: Soil

Collected: 2021/02/26
Shipped:
Received: 2021/03/18

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7259163	2021/03/22	2021/03/22	Archana Patel
Free (WAD) Cyanide	TECH	7259067	2021/03/22	2021/03/22	Louise Harding
Conductivity	AT	7261163	2021/03/23	2021/03/23	Tarunpreet Kaur
Hexavalent Chromium in Soil by IC	IC/SPEC	7259460	2021/03/22	2021/03/23	Violeta Porcila
Strong Acid Leachable Metals by ICPMS	ICP/MS	7259461	2021/03/22	2021/03/22	Viviana Canzonieri
Moisture	BAL	7256222	N/A	2021/03/19	Min Yang
pH CaCl2 EXTRACT	AT	7256785	2021/03/19	2021/03/19	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	7253705	N/A	2021/03/23	Automated Statchk



BV Labs Job #: C172256
Report Date: 2021/03/24

DS Consultants Limited
Client Project #: 19-323-100
Site Location: PALERMO VILLAGE
Sampler Initials: JG

GENERAL COMMENTS

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

Package 1	9.0°C
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Results relate only to the items tested.



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BV Labs Job #: C172256
Report Date: 2021/03/24

QUALITY ASSURANCE REPORT

DS Consultants Limited
Client Project #: 19-323-100
Site Location: PALERMO VILLAGE
Sampler Initials: JG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7256222	Moisture	2021/03/19							2.1	20
7256785	Available (CaCl2) pH	2021/03/19			100	97 - 103			0.16	N/A
7259067	WAD Cyanide (Free)	2021/03/22	89	75 - 125	94	80 - 120	<0.01	ug/g	7.6	35
7259163	Hot Water Ext. Boron (B)	2021/03/22	96	75 - 125	95	75 - 125	<0.050	ug/g	7.2	40
7259460	Chromium (VI)	2021/03/23	44 (1)	70 - 130	93	80 - 120	<0.18	ug/g	NC	35
7259461	Acid Extractable Antimony (Sb)	2021/03/22	89	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
7259461	Acid Extractable Arsenic (As)	2021/03/22	100	75 - 125	106	80 - 120	<1.0	ug/g	2.8	30
7259461	Acid Extractable Barium (Ba)	2021/03/22	NC	75 - 125	106	80 - 120	<0.50	ug/g	2.5	30
7259461	Acid Extractable Beryllium (Be)	2021/03/22	98	75 - 125	104	80 - 120	<0.20	ug/g	5.0	30
7259461	Acid Extractable Boron (B)	2021/03/22	90	75 - 125	105	80 - 120	<5.0	ug/g	2.3	30
7259461	Acid Extractable Cadmium (Cd)	2021/03/22	99	75 - 125	102	80 - 120	<0.10	ug/g	NC	30
7259461	Acid Extractable Chromium (Cr)	2021/03/22	97	75 - 125	100	80 - 120	<1.0	ug/g	0.25	30
7259461	Acid Extractable Cobalt (Co)	2021/03/22	94	75 - 125	101	80 - 120	<0.10	ug/g	0.44	30
7259461	Acid Extractable Copper (Cu)	2021/03/22	NC	75 - 125	102	80 - 120	<0.50	ug/g	1.7	30
7259461	Acid Extractable Lead (Pb)	2021/03/22	92	75 - 125	97	80 - 120	<1.0	ug/g	1.3	30
7259461	Acid Extractable Mercury (Hg)	2021/03/22	84	75 - 125	86	80 - 120	<0.050	ug/g		
7259461	Acid Extractable Molybdenum (Mo)	2021/03/22	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
7259461	Acid Extractable Nickel (Ni)	2021/03/22	NC	75 - 125	104	80 - 120	<0.50	ug/g	0.27	30
7259461	Acid Extractable Selenium (Se)	2021/03/22	99	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
7259461	Acid Extractable Silver (Ag)	2021/03/22	100	75 - 125	102	80 - 120	<0.20	ug/g	NC	30
7259461	Acid Extractable Thallium (Tl)	2021/03/22	93	75 - 125	98	80 - 120	<0.050	ug/g	1.9	30
7259461	Acid Extractable Uranium (U)	2021/03/22	94	75 - 125	95	80 - 120	<0.050	ug/g	2.2	30
7259461	Acid Extractable Vanadium (V)	2021/03/22	NC	75 - 125	101	80 - 120	<5.0	ug/g	0.55	30
7259461	Acid Extractable Zinc (Zn)	2021/03/22	NC	75 - 125	102	80 - 120	<5.0	ug/g	1.7	30



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VERITAS

BV Labs Job #: C172256
Report Date: 2021/03/24

QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited
Client Project #: 19-323-100
Site Location: PALERMO VILLAGE
Sampler Initials: JG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
7261163	Conductivity	2021/03/23			103	90 - 110	<0.002	mS/cm	0.28	10

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.

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 $\leq 2x$ 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 matrix spike was reanalyzed to confirm result.



BV Labs Job #: C172256
Report Date: 2021/03/24

DS Consultants Limited
Client Project #: 19-323-100
Site Location: PALERMO VILLAGE
Sampler Initials: JG

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

A handwritten signature in black ink, appearing to read "Anastassia Hamanov", written over a horizontal line.

Anastassia Hamanov, Scientific Specialist

BV Labs 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 Signature Page.



BUREAU
VERITAS

BV Labs Job #: C172256

Report Date: 2021/03/24

DS Consultants Limited

Client Project #: 19-323-100

Site Location: PALERMO VILLAGE

Sampler Initials: JG

**Exceedance Summary Table – Reg153/04 T1-Soil/Res
Result Exceedances**

Sample ID	BV Labs 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.						



FINAL REPORT

CA14124-APR21 R

19-323-100, Palermo Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Brian Poole
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	705-652-2000
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	brian.poole@sgs.com
Project	19-323-100, Palermo Village	SGS Reference	CA14124-APR21
Order Number		Received	04/06/2021
Samples	soil (16)	Approved	04/13/2021
		Report Number	CA14124-APR21 R
		Date Reported	04/13/2021

COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 7 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 021014/019188

m/p-xylene present in prep blank, all Xylene (total) and m/p-xylene results are <RL

SIGNATORIES

Brian Poole

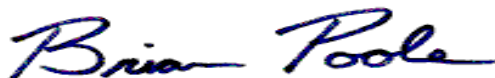


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FINAL REPORT

CA14124-APR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - BTEX (SOIL)

Sample Number 8 20
Sample Name BH21-10A/SS2 Dup02
Sample Matrix soil soil
Sample Date 06/04/2021 06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
BTEX						
Benzene	µg/g	0.02	0.02	0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	0.2	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			< 0.05	< 0.05
o-xylene	µg/g	0.05			< 0.05	< 0.05

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number 14 19
Sample Name BH21-11A/SS1 Dup01
Sample Matrix soil soil
Sample Date 06/04/2021 06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
Hydrides						
Antimony	µg/g	0.8	1.3	1.3	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	5.2	4.2
Selenium	µg/g	0.7	1.5	1.5	< 0.7	< 0.7



FINAL REPORT

CA14124-APR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(SOIL)

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Sample Number	8	14	19	20
Sample Name	BH21-10A/SS2	BH21-11A/SS1	Dup01	Dup02
Sample Matrix	soil	soil	soil	soil
Sample Date	06/04/2021	06/04/2021	06/04/2021	06/04/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
Metals and Inorganics								
Moisture Content	%	-			14.2			15.5
Barium	µg/g	0.1	220	220		110	86	
Beryllium	µg/g	0.02	2.5	2.5		0.60	0.49	
Boron	µg/g	1	36	36		10	8	
Cadmium	µg/g	0.02	1.2	1.2		0.23	0.10	
Chromium	µg/g	0.5	70	70		20	17	
Cobalt	µg/g	0.01	21	21		12	11	
Copper	µg/g	0.1	92	92		36	24	
Lead	µg/g	0.1	120	120		50	14	
Molybdenum	µg/g	0.1	2	2		1.0	0.7	
Nickel	µg/g	0.5	82	82		25	23	
Silver	µg/g	0.05	0.5	0.5		< 0.05	< 0.05	
Thallium	µg/g	0.02	1	1		0.14	0.16	
Uranium	µg/g	0.002	2.5	2.5		0.68	0.58	
Vanadium	µg/g	3	86	86		26	23	
Zinc	µg/g	0.7	290	290		390	67	



FINAL REPORT

CA14124-APR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - PHCs (SOIL)**

Sample Number	8	20
Sample Name	BH21-10A/SS2	Dup02
Sample Matrix	soil	soil
Sample Date	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
PHCs						
F1 (C6-C10)	µg/g	10	25	25	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10
F2 (C10-C16)	µg/g	10	10	10	< 10	< 10
F3 (C16-C34)	µg/g	50	240	240	< 50	< 50
F4 (C34-C50)	µg/g	50	120	120	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED	REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED
				L1	L2

BH21-11A/SS1

Zinc	EPA 3050/EPA 200.8	µg/g	390	290	290
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HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-11A/SS1	EMS0022-APR21	14	04/06/2021	04/06/2021	04/07/2021	04/08/2021	10/03/2021	04/09/2021
Dup01	EMS0022-APR21	19	04/06/2021	04/06/2021	04/07/2021	04/08/2021	10/03/2021	04/09/2021

Moisture

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-10A/SS2	GCM0087-APR21	8	04/06/2021	04/06/2021			06/05/2021	04/08/2021
Dup02	GCM0087-APR21	20	04/06/2021	04/06/2021			06/05/2021	04/08/2021

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-10A/SS2	GCM0132-APR21	8	04/06/2021	04/06/2021			04/20/2021	04/12/2021
Dup02	GCM0132-APR21	20	04/06/2021	04/06/2021			04/20/2021	04/12/2021

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

BH21-10A/SS2	GCM0107-APR21	8	04/06/2021	04/06/2021			05/16/2021	04/13/2021
Dup02	GCM0107-APR21	20	04/06/2021	04/06/2021			05/16/2021	04/13/2021

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

BH21-10A/SS2	GCM0132-APR21	8	04/06/2021	04/06/2021	04/11/2021	04/11/2021	04/20/2021	04/12/2021
Dup02	GCM0132-APR21	20	04/06/2021	04/06/2021	04/11/2021	04/11/2021	04/20/2021	04/12/2021



FINAL REPORT

CA14124-APR21 R

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0022-APR21	ug/g	0.05	<0.05	ND	20	100	70	130	99	70	130
Arsenic	EMS0022-APR21	µg/g	0.5	<0.5	2	20	100	70	130	92	70	130
Barium	EMS0022-APR21	ug/g	0.1	<0.1	5	20	103	70	130	85	70	130
Beryllium	EMS0022-APR21	µg/g	0.02	<0.02	9	20	93	70	130	80	70	130
Boron	EMS0022-APR21	µg/g	1	<1	4	20	104	70	130	96	70	130
Cadmium	EMS0022-APR21	µg/g	0.02	<0.02	8	20	98	70	130	94	70	130
Cobalt	EMS0022-APR21	µg/g	0.01	<0.01	6	20	101	70	130	95	70	130
Chromium	EMS0022-APR21	µg/g	0.5	<0.5	4	20	98	70	130	90	70	130
Copper	EMS0022-APR21	µg/g	0.1	<0.1	2	20	98	70	130	90	70	130
Molybdenum	EMS0022-APR21	µg/g	0.1	<0.1	ND	20	100	70	130	89	70	130
Nickel	EMS0022-APR21	ug/g	0.5	<0.5	3	20	97	70	130	91	70	130
Lead	EMS0022-APR21	µg/g	0.1	<0.1	7	20	101	70	130	102	70	130
Antimony	EMS0022-APR21	µg/g	0.8	<0.8	ND	20	97	70	130	92	70	130
Selenium	EMS0022-APR21	µg/g	0.7	<0.7	ND	20	99	70	130	92	70	130
Thallium	EMS0022-APR21	µg/g	0.02	<0.02	13	20	105	70	130	98	70	130
Uranium	EMS0022-APR21	µg/g	0.002	<0.002	7	20	101	70	130	107	70	130
Vanadium	EMS0022-APR21	µg/g	3	<3	8	20	99	70	130	90	70	130
Zinc	EMS0022-APR21	µg/g	0.7	<0.7	1	20	97	70	130	95	70	130



FINAL REPORT

CA14124-APR21 R

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0132-APR21	µg/g	10	<10	ND	30	103	80	120	106	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0107-APR21	µg/g	10	<10	ND	30	105	80	120	NV	60	140
F3 (C16-C34)	GCM0107-APR21	µg/g	50	<50	ND	30	105	80	120	NV	60	140
F4 (C34-C50)	GCM0107-APR21	µg/g	50	<50	ND	30	105	80	120	NV	60	140

QC SUMMARY

Volatile Organics

Method: EPA 5035A/5030B/8260C | Internal ref.: ME-CA-IENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Benzene	GCM0132-APR21	µg/g	0.02	<0.02	ND	50	89	60	130	80	50	140
Ethylbenzene	GCM0132-APR21	µg/g	0.05	<0.05	ND	50	80	60	130	75	50	140
m/p-xylene	GCM0132-APR21	µg/g	0.05	0.07	ND	50	81	60	130	75	50	140
o-xylene	GCM0132-APR21	µg/g	0.05	<0.05	ND	50	85	60	130	80	50	140
Toluene	GCM0132-APR21	µg/g	0.05	<0.05	ND	50	86	60	130	80	50	140

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.



FINAL REPORT

CA14124-APR21 R

QC SUMMARY

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --



FINAL REPORT

CA14782-APR21 R1

19-323-100, Polerma Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants

Address 6221 Highway 7 Unit 16, Vaughan
Canada, L4H 0K8
Phone: 905-264-9393. Fax:905-264-2685

Contact Kirstin Olsen

Telephone 905-264-9393

Facsimile 905-264-2685

Email kirstin.olsen@dsconsultants.ca

Project 19-323-100, Polerma Village

Order Number

Samples soil (4)

LABORATORY DETAILS

Project Specialist Jill Campbell, B.Sc.,GISAS

Laboratory SGS Canada Inc.

Address 185 Concession St., Lakefield ON, K0L 2H0

Telephone 2165

Facsimile 705-652-6365

Email jill.campbell@sgs.com

SGS Reference CA14782-APR21

Received 04/23/2021

Approved 04/26/2021

Report Number CA14782-APR21 R1

Date Reported 04/26/2021

COMMENTS

Temperature of Sample upon Receipt: 7 degrees C

Cooling Agent Present:Yes

Custody Seal Present:Yes

Chain of Custody Number:021014/019188

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14782-APR21 R1

Client: DS Consultants

Project: 19-323-100, Polerma Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number	8	9	10	11
Sample Name	BH21-11NE SS1	BH21-11SE SS1	BH21-11S SS1	BH21-11A/SS2
Sample Matrix	soil	soil	soil	soil
Sample Date	06/04/2021	06/04/2021	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
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Hydrides

Antimony	µg/g	0.8	1.3	1.3	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.2	5.4	4.2	4.2
Selenium	µg/g	0.7	1.5	1.5	< 0.7	< 0.7	< 0.7	< 0.7

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9	10	11
Sample Name	BH21-11NE SS1	BH21-11SE SS1	BH21-11S SS1	BH21-11A/SS2
Sample Matrix	soil	soil	soil	soil
Sample Date	06/04/2021	06/04/2021	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
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Metals and Inorganics

Barium	µg/g	0.1	220	220	88	127	147	90
Beryllium	µg/g	0.02	2.5	2.5	0.54	0.60	0.59	0.51
Boron	µg/g	1	36	36	6	12	4	7
Cadmium	µg/g	0.02	1.2	1.2	0.19	0.25	0.18	0.13
Chromium	µg/g	0.5	70	70	18	22	23	18
Cobalt	µg/g	0.01	21	21	11	12	9.3	12
Copper	µg/g	0.1	92	92	23	46	33	26
Lead	µg/g	0.1	120	120	29	82	76	13
Molybdenum	µg/g	0.1	2	2	0.5	1.0	0.5	0.4
Nickel	µg/g	0.5	82	82	21	27	21	25
Silver	µg/g	0.05	0.5	0.5	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	1	0.14	0.12	0.12	0.17



FINAL REPORT

CA14782-APR21 R1

Client: DS Consultants

Project: 19-323-100, Polerma Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - Metals and Inorganics**
(SOIL)

Sample Number	8	9	10	11
Sample Name	BH21-11NE SS1	BH21-11SE SS1	BH21-11S SS1	BH21-11A/SS2
Sample Matrix	soil	soil	soil	soil
Sample Date	06/04/2021	06/04/2021	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
Metals and Inorganics (continued)								
Uranium	µg/g	0.002	2.5	2.5	0.52	0.78	0.59	0.56
Vanadium	µg/g	3	86	86	25	29	26	24
Zinc	µg/g	0.7	290	290	97	548	428	67

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED L1	REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED L2
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BH21-11SE SS1

Zinc	EPA 3050/EPA 200.8	µg/g	548	290	290
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BH21-11S SS1

Zinc	EPA 3050/EPA 200.8	µg/g	428	290	290
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HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-11NE SS1	EMS0127-APR21	8	04/06/2021	04/23/2021	04/26/2021	04/26/2021	10/03/2021	04/26/2021
BH21-11SE SS1	EMS0127-APR21	9	04/06/2021	04/23/2021	04/26/2021	04/26/2021	10/03/2021	04/26/2021
BH21-11S SS1	EMS0127-APR21	10	04/06/2021	04/23/2021	04/26/2021	04/26/2021	10/03/2021	04/26/2021
BH21-11A/SS2	EMS0127-APR21	11	04/06/2021	04/23/2021	04/26/2021	04/26/2021	10/03/2021	04/26/2021



FINAL REPORT

CA14782-APR21 R1

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0127-APR21	ug/g	0.05	<0.05	ND	20	100	70	130	104	70	130
Arsenic	EMS0127-APR21	ug/g	0.5	<0.5	0	20	101	70	130	97	70	130
Barium	EMS0127-APR21	ug/g	0.1	<0.1	5	20	106	70	130	96	70	130
Beryllium	EMS0127-APR21	ug/g	0.02	<0.02	5	20	97	70	130	88	70	130
Boron	EMS0127-APR21	ug/g	1	<1	ND	20	99	70	130	96	70	130
Cadmium	EMS0127-APR21	ug/g	0.02	<0.02	6	20	101	70	130	104	70	130
Cobalt	EMS0127-APR21	ug/g	0.01	<0.01	0	20	102	70	130	106	70	130
Chromium	EMS0127-APR21	ug/g	0.5	<0.5	1	20	100	70	130	101	70	130
Copper	EMS0127-APR21	ug/g	0.1	<0.1	3	20	100	70	130	102	70	130
Molybdenum	EMS0127-APR21	ug/g	0.1	<0.1	9	20	97	70	130	101	70	130
Nickel	EMS0127-APR21	ug/g	0.5	<0.5	3	20	99	70	130	101	70	130
Lead	EMS0127-APR21	ug/g	0.1	<0.1	1	20	103	70	130	107	70	130
Antimony	EMS0127-APR21	ug/g	0.8	<0.8	ND	20	104	70	130	79	70	130
Selenium	EMS0127-APR21	ug/g	0.7	<0.7	ND	20	102	70	130	102	70	130
Thallium	EMS0127-APR21	ug/g	0.02	<0.02	7	20	107	70	130	104	70	130
Uranium	EMS0127-APR21	ug/g	0.002	<0.002	7	20	100	70	130	103	70	130
Vanadium	EMS0127-APR21	ug/g	3	<3	0	20	101	70	130	102	70	130
Zinc	EMS0127-APR21	ug/g	0.7	<0.7	5	20	98	70	130	101	70	130

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND**FOOTNOTES**

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --



Received By: Kim Sheard
 Received Date: 04/06/21 (mm/dd/yyyy)
 Received Time: 16:15 (hr : min)

Received By (signature): [Signature]
 Cooling Agent Present: Yes No
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No
 Temperature Upon Receipt (°C): 7.7, 7.7 Type: ice
 LAB LIMS #: CA14124-APP21

REPORT INFORMATION
 Company: DS Consultants
 Contact: Kirstin Olsen
 Address: 622 Highway 7, Unit 14
Vaughan, ON L4H0K8
 Phone: 437-922-2344
 Fax: 437-922-2344
 Email: kirstin.olsen@dsconsultants.ca

INVOICE INFORMATION
 (same as Report Information)
 Company: DS Consultants
 Contact: Accounting
 Address: _____
 Phone: _____
 Email: _____

Quotation #: _____
 Project #: 19-323-100
 P.O.#: _____
 Site Location/ID: Palermo Village
 Turnaround Time (TAT) REQUIRED
 Regular TAT (5-7 days)
 RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

REGULATIONS
 O.Reg 153/04 O.Reg 406/19
 Table 1 Rest/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium/Fine
 Table _____ MSA
 Soil Volume <350m³ >350m³
 O.DWS Not Reportable - See note

Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PW/CO MMER
 CCME Other: _____
 MSA
 Municipality: _____

Sewer By-Law:
 Sanitary
 Storm
 Other: _____

RECORD OF SITE CONDITION (RSC) YES NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 BH21-104/SS2	04/06/21	AM	3	Soil
2 BH21-104/SS3			3	
3 BH21-10N/SS2			3	
4 BH21-10S/SS2			3	
5 BH21-10E/SS2			3	
6 BH21-10W/SS2			3	
7 BH21-11A/SS1			1	
8 BH21-11NE			1	
9 BH21-11SE			1	
10 BH21-11S			1	
11 BH21-11A/SS2			1	
12 DUPOI			1	

ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics <small>(incl CrVI, CN, Hg, pH, (B)(HWS), EC, SAR, soil), (Cl, Na-water)</small>							
Full Metals Suite <small>(ICP metals plus B(HWS-soil only) Hg, CrVI)</small>							
ICP Metals only <small>(Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni)</small>							
PAHs only							
SVOCs <small>(all incl PAHs, ABNs, CPs)</small>							
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
F1-F4 + BTEX							
F1-F4 only <small>(no BTEX)</small>							
VOCs <small>(all incl BTEX)</small>							
BTEX only							
Pesticides <small>(Organochlorine or specify other)</small>							
Appendix 2: 406/19 Leachate Screening Levels Table:							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
Specify TCLP <input type="checkbox"/> leach <input type="checkbox"/> MMI <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> BiogP <input type="checkbox"/> ABN <input type="checkbox"/> IgmL <input type="checkbox"/>							

APPENDIX 2: 406/19 LEACHATE SCREENING LEVELS TABLE

APPENDIX 3: SEWER USE

APPENDIX 4: WATER CHARACTERIZATION PACKAGE

APPENDIX 5: TAT

APPENDIX 6: TAT

APPENDIX 7: TAT

APPENDIX 8: TAT

APPENDIX 9: TAT

APPENDIX 10: TAT

APPENDIX 11: TAT

APPENDIX 12: TAT

APPENDIX 13: TAT

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APPENDIX 96: TAT

APPENDIX 97: TAT

APPENDIX 98: TAT

APPENDIX 99: TAT

APPENDIX 100: TAT

Sampled By (NAME): John Gaviria Signature: [Signature] Date: 04/06/21 (mm/dd/yyyy)
 Relinquished by (NAME): John Gaviria Signature: [Signature] Date: 04/06/21 (mm/dd/yyyy)

Notes: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Yellow & White Copy - SGS
 Pink Copy - Client



Request for Laboratory Services and CHAIN OF CUSTODY

Laboratory Information Section - Lab use only

Received By: Kim Shepard
 Received Date: 04/06/12 (mm/dd/yy)
 Received Time: 16:15 (hr : min)

Cooling Agent Present: Yes No
 Temperature Upon Receipt (°C): 7.7 Type: ice
 Custody Seal Present: Yes No

LAB LIMS #: _____
 P.O. #: _____
 Site Location/ID: Palermo Village

REPORT INFORMATION

Company: DS Consultants
 Contact: Kristin Cley
 Address: 622 Hwy 2 Unit 16
Vaughan, ON L4H0K8
 Phone: 437-928-2394
 Fax: _____
 Email: kristin.cley@dsconsultants.com

INVOICE INFORMATION

(Same as Report Information)
 Company: DS Consultants
 Contact: Accounting
 Address: _____
 Phone: _____
 Email: _____

REGULATIONS

O.Reg 153/04 O.Reg 406/19
 Res/Park Soil Texture:
 Table 1 Ind/Com Coarse
 Table 2 Agr/Other Medium/Fine
 Table 3 MISA
 Soil Volume: <350m³ >350m³
 YES NO
 RECORD OF SITE CONDITION (RSC)

ANALYSIS REQUESTED

Quotation #: _____
 Project #: 19-325-100
 Turnaround Time (TAT) Required: _____
 Regular TAT (5-7 days)
 Rush TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION
 Specify Due Date: _____
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Other Regulations:
 Reg. 347/558 (3 Day min TAT)
 PWCO MMER
 CCME Other: _____
 MISA
 Municipality: _____
 Sewer By-Law:
 Sanitary
 Storm
 Other: _____

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics <small>(incl. CrVI, CN, Hg, pH, B(HWS), EC, SAR-soil) (Cl, Na-water)</small>							
Full Metals Suite <small>(ICP metals plus B(HWS-soil) only) Hg, CrVI</small>							
ICP Metals only <small>(Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni)</small>							
PAHs only							
SVOCs <small>(all incl. PAHs, ABNs, CPs)</small>							
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
F1-F4 + BTEX <small>(F1-F4 only, no BTEX)</small>							
VOCs <small>(all incl. BTEX)</small>							
BTEX only							
Pesticides <small>(Organochlorine or specify other)</small>							
Appendix 2: 406/19 Leachate Screening Levels Table:							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
Specify: TCLP <input type="checkbox"/> leach <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> Bla/p <input type="checkbox"/> ABN <input type="checkbox"/> IgmL <input type="checkbox"/>							

COMMENTS:

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1	Dupe 2	04/06/12	3	soil
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				

Observations/Comments: Special Instructions

Sampled By (NAME): John Gavina Signature: _____ Date: 04/06/12 (mm/dd/yy)
 Relinquished by (NAME): John Gavina Signature: _____ Date: 04/06/12 (mm/dd/yy)
 Requisition # 14 Note: Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Pink Copy - Client

Yellow & White Copy - SGS



FINAL REPORT

CA15888-APR21 R

19-323-100, Palermo Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS

Client DS Consultants
 Address 6221 Highway 7 Unit 16
 Vaughan, Ontario
 L4H 0K8, Canada
 Contact Kirstin Olsen
 Telephone 905-264-9393
 Facsimile 905-264-2685
 Email kirstin.olsen@dsconsultants.ca
 Project 19-323-100, Palermo Village
 Order Number
 Samples soil (2)

LABORATORY DETAILS

Project Specialist Brad Moore Hon. B.Sc
 Laboratory SGS Canada Inc.
 Address 185 Concession St., Lakefield ON, K0L 2H0
 Telephone 705-652-2143
 Facsimile 705-652-6365
 Email brad.moore@sgs.com
 SGS Reference CA15888-APR21
 Received 04/28/2021
 Approved 04/30/2021
 Report Number CA15888-APR21 R
 Date Reported 04/30/2021

COMMENTS

Temperature of Sample upon Receipt: 4 degrees C
 Cooling Agent Present: Yes
 Custody Seal Present: Yes
 Chain of Custody Number: 014238

SIGNATORIES

Brad Moore Hon. B.Sc

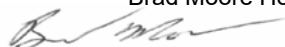


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FINAL REPORT

CA15888-APR21 R

Client: DS Consultants

Project: 19-323-100, Palermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number	8	9
Sample Name	BH21-11 S1/SS1	BH21-11 SE1/SS1
Sample Matrix	soil	soil
Sample Date	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
Hydrides						
Antimony	µg/g	0.8	1.3	1.3	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	18	4.0	4.8
Selenium	µg/g	0.7	1.5	1.5	< 0.7	< 0.7

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9
Sample Name	BH21-11 S1/SS1	BH21-11 SE1/SS1
Sample Matrix	soil	soil
Sample Date	06/04/2021	06/04/2021

L1 = REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
Metals and Inorganics						
Barium	µg/g	0.1	220	220	80	76
Beryllium	µg/g	0.02	2.5	2.5	0.56	0.59
Boron	µg/g	1	36	36	9	9
Cadmium	µg/g	0.02	1.2	1.2	0.14	0.14
Chromium	µg/g	0.5	70	70	18	19
Cobalt	µg/g	0.01	21	21	11	11
Copper	µg/g	0.1	92	92	21	21
Lead	µg/g	0.1	120	120	11	12
Molybdenum	µg/g	0.1	2	2	0.3	0.6
Nickel	µg/g	0.5	82	82	23	24
Silver	µg/g	0.05	0.5	0.5	< 0.05	< 0.05

EXCEEDANCE SUMMARY

No exceedances are present above the regulatory limit(s) indicated

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
-------------	--------------------	---------------	---------	----------	--------------------	----------	--------------	----------

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-005

BH21-11 S1/SS1	EMS0148-APR21	8	04/06/2021	04/28/2021	04/29/2021	04/29/2021	10/03/2021	04/30/2021
BH21-11 SE1/SS1	EMS0148-APR21	9	04/06/2021	04/28/2021	04/29/2021	04/29/2021	10/03/2021	04/30/2021



FINAL REPORT

CA15888-APR21 R

QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS

Method: EPA 3050/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0148-APR21	ug/g	0.05	<0.05	ND	20	100	70	130	105	70	130
Arsenic	EMS0148-APR21	µg/g	0.5	<0.5	8	20	100	70	130	98	70	130
Barium	EMS0148-APR21	ug/g	0.1	<0.1	7	20	101	70	130	97	70	130
Beryllium	EMS0148-APR21	µg/g	0.02	<0.02	5	20	100	70	130	97	70	130
Boron	EMS0148-APR21	µg/g	1	<1	ND	20	106	70	130	96	70	130
Cadmium	EMS0148-APR21	µg/g	0.02	<0.02	14	20	101	70	130	100	70	130
Cobalt	EMS0148-APR21	µg/g	0.01	<0.01	5	20	100	70	130	102	70	130
Chromium	EMS0148-APR21	µg/g	0.5	<0.5	5	20	99	70	130	99	70	130
Copper	EMS0148-APR21	µg/g	0.1	<0.1	6	20	97	70	130	98	70	130
Molybdenum	EMS0148-APR21	µg/g	0.1	<0.1	ND	20	96	70	130	98	70	130
Nickel	EMS0148-APR21	ug/g	0.5	<0.5	8	20	97	70	130	98	70	130
Lead	EMS0148-APR21	µg/g	0.1	<0.1	5	20	100	70	130	103	70	130
Antimony	EMS0148-APR21	µg/g	0.8	<0.8	ND	20	99	70	130	91	70	130
Selenium	EMS0148-APR21	µg/g	0.7	<0.7	ND	20	101	70	130	100	70	130
Thallium	EMS0148-APR21	µg/g	0.02	<0.02	ND	20	101	70	130	98	70	130
Uranium	EMS0148-APR21	µg/g	0.002	<0.002	18	20	99	70	130	112	70	130
Vanadium	EMS0148-APR21	µg/g	3	<3	5	20	96	70	130	99	70	130
Zinc	EMS0148-APR21	µg/g	0.7	<0.7	9	20	96	70	130	98	70	130

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --

Received By: Majeed Al-Mudalawi Received By (signature): Majeed Al-Mudalawi **Lab use only**
 Received Date: 04.28.2011 (mm/dd/yy) Cooling Agent Present: Yes No No. 105
 Received Time: 10:15 (hr : min) Custody Seal Intact: Yes No Temperature Upon Receipt (°C): 16.4

REPORT INFORMATION
 Company: DS Consultants
 Contact: Kirstin Olsen
 Address: 6221 Hwy 7, Unit 16
Vaughan, ON L4H 0K8
 Phone: 437-928-2794
 Fax: Kirstin.olsen@dsconsultants.ca
 Email: CA

INVOICE INFORMATION
 (same as Report Information)
 Company: DS Consultants
 Contact: Accounting
 Address: _____
 Phone: _____
 Email: _____

REGULATIONS
Regulation 153/04:
 Table 1 Res/Park Soil Texture: Coarse Medium Fine
 Table 2 Ind/Com Agri/Other
 Table 3 Other:
 Table _____
Other Regulations: Reg 347/558 (3 Day min TAT) PWQO MMER CCME MISA YES NO

RECORD OF SITE CONDITION (RSC)
 Sewer By-Law: Sanitary Storm Municipality:
 DATE SAMPLED: 04/06/11 TIME SAMPLED: AM # OF BOTTLES: 1 MATRIX: Soil
 SAMPLE IDENTIFICATION: BH 21-11 S1/S51
BH 21-11 SE1/S51

ANALYSIS REQUESTED
 Field Filtered (Y/N)
 Metals & Inorganics (incl. Cr, Ni-water)
 Full Metals Suite (ICP metals plus B(HW)-soil only Hg, CrVI)
 ICP Metals only (SA, Ag, Tl, V, Zn)
 PAHs only
 SVOCs (all incl PAHs, ABNs, CPE)
 PCBs Total Aroclor
 F1-F4 + BTEX
 F1-F4 only
 VOCs (no BTEX)
 BTEX only
 Pesticides (Organizations or specify other)
 Pest
 Other (please specify) _____
 Water Characterization Pkg
 General
 Extended
 Sewer Use: _____
 Specify Pkg: _____
 TCLP
 Specify: TCLP tests M&I VOC PCB B(b)P ABN Ignit.

COMMENTS:

1	BH 21-11 S1/S51	04/06/11	AM	1	Soil
2	BH 21-11 SE1/S51	04/06/11	AM	1	Soil
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Observations/Comments/Special Instructions

Quotation #: _____ P.O. #: _____
 Project #: 19-323-100 Site Location/ID: Paterno Village
TURNAROUND TIME (TAT) REQUIRED
 Regular TAT (5-7 days) 1 Day 2 Days 3 Days 4 Days
RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION
 Specify Due Date: _____
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Signature: John Gauria Date: 04.10.11 (mm/dd/yy)
 Signature: John Gauria Date: 04.28.11 (mm/dd/yy)
 Signature: Zoh A. Gauria Date: 04.10.11 (mm/dd/yy)
 Signature: Zoh A. Gauria Date: 04.28.11 (mm/dd/yy)

Revised by (NAME): John Gauria Pink Copy - Client
 Relinquished by (NAME): John Gauria Yellow & White Copy - SGS

Revision # 1.2
 Date of Issue: 09 Sept. 2019
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



FINAL REPORT

CA14275-JUN21 R1

19-323-100

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Jill Campbell, B.Sc.,GISAS
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	2165
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	jill.campbell@sgs.com
Project	19-323-100	SGS Reference	CA14275-JUN21
Order Number		Received	06/16/2021
Samples	(1) Ground Water (3)	Approved	06/23/2021
		Report Number	CA14275-JUN21 R1
		Date Reported	06/23/2021

COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 6 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 022409

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: - BTEX ()

Sample Number 10

Sample Name Trip Blank

Parameter	Units	RL	Result
BTEX			
Benzene	µg/L	0.5	< 0.5
Ethylbenzene	µg/L	0.5	< 0.5
Toluene	µg/L	0.5	< 0.5
Xylene (total)	µg/L	0.5	< 0.5
m/p-xylene	µg/L	0.5	< 0.5
o-xylene	µg/L	0.5	< 0.5

PACKAGE: - THMs (VOC) ()

Sample Number 10

Sample Name Trip Blank

Parameter	Units	RL	Result
THMs (VOC)			
Bromodichloromethane	µg/L	0.5	< 0.5
Bromoform	µg/L	0.5	< 0.5
Dibromochloromethane	µg/L	0.5	< 0.5



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: - VOC Surrogates ()

Sample Number 10
Sample Name Trip Blank

Parameter	Units	RL	Result
VOC Surrogates			
Surr 1,2-Dichloroethane-d4	Surr Rec %	-	112
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-	97
Surr 4-Bromofluorobenzene	Surr Rec %	-	84

PACKAGE: - VOCs ()

Sample Number 10
Sample Name Trip Blank

Parameter	Units	RL	Result
VOCs			
Acetone	µg/L	30	< 30
Bromomethane	µg/L	0.5	< 0.8 †
Carbon tetrachloride	µg/L	0.2	< 0.2
Chlorobenzene	µg/L	0.5	< 0.5
Chloroform	µg/L	0.5	< 0.5
1,2-Dichlorobenzene	µg/L	0.5	< 0.5
1,3-Dichlorobenzene	µg/L	0.5	< 0.5
1,4-Dichlorobenzene	µg/L	0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	< 2
1,1-Dichloroethane	µg/L	0.5	< 0.5
1,2-Dichloroethane	µg/L	0.5	< 0.5
1,1-Dichloroethylene	µg/L	0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	< 0.5
1,2-Dichloropropane	µg/L	0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5	< 0.5
trans-1,3-Dichloropropene	µg/L	0.5	< 0.5



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: - VOCs ()

Sample Number 10

Sample Name Trip Blank

Parameter	Units	RL	Result
VOCs (continued)			
1,3-dichloropropene (total)	µg/L	0.5	< 0.5
Ethylenedibromide	µg/L	0.2	< 0.2
n-Hexane	µg/L	1.0	< 1
Methyl ethyl ketone	µg/L	20	< 20
Methyl Isobutyl Ketone	µg/L	20	< 20
Methyl-t-butyl Ether	µg/L	2.0	< 2
Methylene Chloride	µg/L	0.5	< 0.5
Styrene	µg/L	0.5	< 0.5
Tetrachloroethylene (perchloroethylene)	µg/L	0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	< 0.5
1,1,2,2-Tetrachloroethane	µg/L	0.5	< 0.5
1,1,1-Trichloroethane	µg/L	0.5	< 0.5
1,1,2-Trichloroethane	µg/L	0.5	< 0.5
Trichloroethylene	µg/L	0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	< 5
Vinyl Chloride	µg/L	0.2	< 0.2



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: **REG153 - BTEX (WATER)**

Sample Number	7	8	9
Sample Name	MW21B-1	MW21B-2	Dup-1
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
BTEX						
Benzene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Toluene	µg/L	0.5	0.8	< 0.5	< 0.5	< 0.5
Xylene (total)	µg/L	0.5	72	< 0.5	< 0.5	< 0.5
m/p-xylene	µg/L	0.5		< 0.5	< 0.5	< 0.5
o-xylene	µg/L	0.5		< 0.5	< 0.5	< 0.5

PACKAGE: **REG153 - Hydrides (WATER)**

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Hydrides					
Antimony	µg/L	0.9	1.5	< 0.9	0.9
Arsenic	µg/L	0.2	13	1.4	8.1
Selenium	µg/L	0.04	5	0.08	0.80



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: **REG153 - Metals and Inorganics**

(WATER)

Sample Number 7 8

Sample Name MW21B-1 MW21B-2

Sample Matrix Ground Water Ground Water

Sample Date 16/06/2021 16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Metals and Inorganics					
Barium	µg/L	0.02	610	40.1	121
Beryllium	µg/L	0.007	0.5	< 0.007	< 0.007
Boron	µg/L	2	1700	769	395
Cadmium	µg/L	0.003	0.5	0.007	0.012
Chromium	µg/L	0.08	11	0.37	0.29
Cobalt	µg/L	0.004	3.8	1.20	0.868
Copper	µg/L	0.2	5	2.1	0.9
Lead	µg/L	0.09	1.9	< 0.09	< 0.09
Molybdenum	µg/L	0.04	23	4.60	12.5
Nickel	µg/L	0.1	14	1.8	2.4
Silver	µg/L	0.05	0.3	< 0.05	< 0.05
Thallium	µg/L	0.005	0.5	0.022	0.051
Uranium	µg/L	0.002	8.9	18.4	14.6
Vanadium	µg/L	0.01	3.9	0.59	2.01
Zinc	µg/L	2	160	3	< 2



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: REG153 - Na (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Na					
Sodium	µg/L	10	490000	232000	106000

PACKAGE: REG153 - Other (ORP) (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Other (ORP)					
Mercury (total)	µg/L	0.01	0.1	< 0.01	< 0.01
pH	No unit	0.05		7.41	7.51
Chloride	µg/L	1000	790000	830000	410000
Chromium VI	µg/L	0.2	25	< 0.2	0.2
Cyanide (free)	µg/L	2	5	< 2	< 2

PACKAGE: REG153 - PAHs (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
PAHs					
Acenaphthene	µg/L	0.1	4.1	< 0.1	< 0.1
Acenaphthylene	µg/L	0.1	1	< 0.1	< 0.1
Anthracene	µg/L	0.1	0.1	< 0.1	< 0.1
Benzo(a)anthracene	µg/L	0.1	0.2	< 0.1	< 0.1



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: **REG153 - PAHs (WATER)**

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
PAHs (continued)					
Benzo(a)pyrene	µg/L	0.01	0.01	< 0.01	< 0.01
Benzo(b+j)fluoranthene	µg/L	0.1	0.1	< 0.1	< 0.1
Benzo(ghi)perylene	µg/L	0.2	0.2	< 0.2	< 0.2
Benzo(k)fluoranthene	µg/L	0.1	0.1	< 0.1	< 0.1
Chrysene	µg/L	0.1	0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	µg/L	0.1	0.2	< 0.1	< 0.1
Fluoranthene	µg/L	0.1	0.4	< 0.1	< 0.1
Fluorene	µg/L	0.1	120	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.2	< 0.2	< 0.2
1-Methylnaphthalene	µg/L	0.5		< 0.5	< 0.5
2-Methylnaphthalene	µg/L	0.5		< 0.5	< 0.5
Methylnaphthalene, 2-(1-)	µg/L	0.5	2	< 0.5	< 0.5
Naphthalene	µg/L	0.5	7	< 0.5	< 0.5
Phenanthrene	µg/L	0.1	0.1	< 0.1	< 0.1
Pyrene	µg/L	0.1	0.2	< 0.1	< 0.1



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: REG153 - PHCs (WATER)

Sample Number	7	8	9
Sample Name	MW21B-1	MW21B-2	Dup-1
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
PHCs						
F1 (C6-C10)	µg/L	25	420	< 25	< 25	< 25
F1-BTEX (C6-C10)	µg/L	25		< 25	< 25	< 25
F2 (C10-C16)	µg/L	100	150	< 100	< 100	< 100
F3 (C16-C34)	µg/L	200	500	< 200	< 200	< 200
F4 (C34-C50)	µg/L	200	500	< 200	< 200	< 200
Chromatogram returned to baseline at nC50	Yes / No	-		YES	YES	YES

PACKAGE: REG153 - SVOC Surrogates (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
SVOC Surrogates					
Surr 2-Methylnaphthalene-D10	Surr Rec %	-		84	79
Surr Fluoranthene-D10	Surr Rec %	-		87	91
Surr 2-Fluorobiphenyl	Surr Rec %	-		83	77
Surr 4-Terphenyl-d14	Surr Rec %	-		96	100



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: REG153 - THMs (VOC) (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
THMs (VOC)					
Bromodichloromethane	µg/L	0.5	2	< 0.5	< 0.5
Bromoform	µg/L	0.5	5	< 0.5	< 0.5
Dibromochloromethane	µg/L	0.5	2	< 0.5	< 0.5

PACKAGE: REG153 - VOC Surrogates (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
VOC Surrogates					
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		114	113
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		94	98
Surr 4-Bromofluorobenzene	Surr Rec %	-		84	85

PACKAGE: REG153 - VOCs (WATER)

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
VOCs					
Acetone	µg/L	30	2700	< 30	< 30
Bromomethane	µg/L	0.5	0.89	< 0.8 †	< 0.8 †
Carbon tetrachloride	µg/L	0.2	0.2	< 0.2	< 0.2
Chlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5



FINAL REPORT

CA14275-JUN21 R1

Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: **REG153 - VOCs (WATER)**

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
VOCs (continued)					
Chloroform	µg/L	0.5	2	< 0.5	< 0.5
1,2-Dichlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	590	< 2	< 2
1,1-Dichloroethane	µg/L	0.5	0.5	< 0.5	< 0.5
1,2-Dichloroethane	µg/L	0.5	0.5	< 0.5	< 0.5
1,1-Dichloroethylene	µg/L	0.5	0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5	< 0.5
1,2-Dichloropropane	µg/L	0.5	0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5		< 0.5	< 0.5
trans-1,3-Dichloropropene	µg/L	0.5		< 0.5	< 0.5
1,3-dichloropropene (total)	µg/L	0.5	0.5	< 0.5	< 0.5
Ethylenedibromide	µg/L	0.2	0.2	< 0.2	< 0.2
n-Hexane	µg/L	1.0	5	< 1	< 1
Methyl ethyl ketone	µg/L	20	400	< 20	< 20
Methyl Isobutyl Ketone	µg/L	20	640	< 20	< 20
Methyl-t-butyl Ether	µg/L	2.0	15	< 2	< 2
Methylene Chloride	µg/L	0.5	5	< 0.5	< 0.5
Styrene	µg/L	0.5	0.5	< 0.5	< 0.5
Tetrachloroethylene (perchloroethylene)	µg/L	0.5	0.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	< 0.5	< 0.5



FINAL REPORT

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Client: DS Consultants

Project: 19-323-100

Project Manager: Kirstin Olsen

Samplers: Holly Bowman

PACKAGE: **REG153 - VOCs (WATER)**

Sample Number	7	8
Sample Name	MW21B-1	MW21B-2
Sample Matrix	Ground Water	Ground Water
Sample Date	16/06/2021	16/06/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
VOCs (continued)					
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	µg/L	0.5	0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	µg/L	0.5	0.5	< 0.5	< 0.5
Trichloroethylene	µg/L	0.5	0.5	< 0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	150	< 5	< 5
Vinyl Chloride	µg/L	0.2	0.5	< 0.2	< 0.2

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED L1
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MW21B-1

Uranium	SM 3030/EPA 200.8	µg/L	18.4	8.9
Chloride	US EPA 325.2	µg/L	830000	790000

MW21B-2

Uranium	SM 3030/EPA 200.8	µg/L	14.6	8.9
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HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-026

MW21B-1	DIO5061-JUN21	7	06/16/2021	06/16/2021	06/18/2021	-	07/14/2021	06/21/2021
MW21B-2	DIO5061-JUN21	8	06/16/2021	06/16/2021	06/18/2021	-	07/14/2021	06/21/2021

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

MW21B-1	SKA0184-JUN21	7	06/16/2021	06/16/2021	06/17/2021	06/17/2021	06/30/2021	06/18/2021
MW21B-2	SKA0184-JUN21	8	06/16/2021	06/16/2021	06/17/2021	06/17/2021	06/30/2021	06/18/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

MW21B-1	SKA0193-JUN21	7	06/16/2021	06/16/2021	06/18/2021	06/18/2021	06/30/2021	06/18/2021
MW21B-2	SKA0193-JUN21	8	06/16/2021	06/16/2021	06/18/2021	06/18/2021	06/30/2021	06/18/2021

Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

MW21B-1	EHG0022-JUN21	7	06/16/2021	06/16/2021	06/21/2021	06/21/2021	07/14/2021	06/21/2021
MW21B-2	EHG0022-JUN21	8	06/16/2021	06/16/2021	06/21/2021	06/21/2021	07/14/2021	06/21/2021

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-006

MW21B-1	EMS0135-JUN21	7	06/16/2021	06/16/2021	06/21/2021	06/22/2021	08/15/2021	06/23/2021
MW21B-2	EMS0135-JUN21	8	06/16/2021	06/16/2021	06/21/2021	06/22/2021	08/15/2021	06/23/2021

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

MW21B-1	GCM0339-JUN21	7	06/16/2021	06/16/2021			06/30/2021	06/21/2021
MW21B-2	GCM0339-JUN21	8	06/16/2021	06/16/2021			06/30/2021	06/21/2021
Dup-1	GCM0339-JUN21	9	06/16/2021	06/16/2021			06/30/2021	06/21/2021

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

MW21B-1	GCM0318-JUN21	7	06/16/2021	06/16/2021			06/30/2021	06/21/2021
MW21B-2	GCM0318-JUN21	8	06/16/2021	06/16/2021			06/30/2021	06/21/2021
Dup-1	GCM0318-JUN21	9	06/16/2021	06/16/2021			06/30/2021	06/21/2021

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

MW21B-1	EWL0349-JUN21	7	06/16/2021	06/16/2021	06/17/2021	06/17/2021	06/23/2021	06/21/2021
MW21B-2	EWL0349-JUN21	8	06/16/2021	06/16/2021	06/17/2021	06/17/2021	06/23/2021	06/21/2021

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Semi-Volatile Organics (continued)

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

MW21B-1	GCM0347-JUN21	7	06/16/2021	06/16/2021			06/30/2021	06/23/2021
MW21B-2	GCM0347-JUN21	8	06/16/2021	06/16/2021			07/06/2021	06/23/2021

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

MW21B-1	GCM0327-JUN21	7	06/16/2021	06/16/2021	06/18/2021	06/18/2021	06/30/2021	06/21/2021
MW21B-2	GCM0327-JUN21	8	06/16/2021	06/16/2021	06/18/2021	06/18/2021	06/30/2021	06/21/2021
Dup-1	GCM0327-JUN21	9	06/16/2021	06/16/2021	06/18/2021	06/18/2021	06/30/2021	06/21/2021
Trip Blank	GCM0327-JUN21	10		06/16/2021	06/18/2021	06/18/2021		06/21/2021



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QC SUMMARY

Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-026

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chloride	DIO5061-JUN21	ug/L	1000	<1000	5	20	101	80	120	112	75	125

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Cyanide (free)	SKA0184-JUN21	µg/L	2	<2	ND	10	97	90	110	94	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA0193-JUN21	ug/L	0.2	<0.2	ND	20	99	80	120	92	75	125



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QC SUMMARY

Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0022-JUN21	ug/L	0.01	<0.01	ND	20	112	80	120	107	70	130



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QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0135-JUN21	ug/L	0.05	<0.05	ND	20	103	90	110	106	70	130
Arsenic	EMS0135-JUN21	µg/L	0.2	<0.2	ND	20	109	90	110	111	70	130
Barium	EMS0135-JUN21	µg/L	0.02	<0.02	ND	20	104	90	110	107	70	130
Beryllium	EMS0135-JUN21	µg/L	0.007	<0.07	ND	20	96	90	110	99	70	130
Boron	EMS0135-JUN21	µg/L	2	<2	ND	20	92	90	110	97	70	130
Cadmium	EMS0135-JUN21	µg/L	0.003	<0.003	ND	20	104	90	110	110	70	130
Cobalt	EMS0135-JUN21	µg/L	0.004	<0.004	ND	20	109	90	110	108	70	130
Chromium	EMS0135-JUN21	ug/L	0.08	<0.08	ND	20	108	90	110	110	70	130
Copper	EMS0135-JUN21	ug/L	0.2	<0.2	ND	20	105	90	110	110	70	130
Molybdenum	EMS0135-JUN21	ug/L	0.04	<0.04	ND	20	106	90	110	109	70	130
Sodium	EMS0135-JUN21	ug/L	10	<0.01	ND	20	105	90	110	110	70	130
Nickel	EMS0135-JUN21	µg/L	0.1	<0.1	ND	20	106	90	110	105	70	130
Lead	EMS0135-JUN21	ug/L	0.09	<0.01	ND	20	109	90	110	115	70	130
Antimony	EMS0135-JUN21	ug/L	0.9	<0.9	ND	20	101	90	110	115	70	130
Selenium	EMS0135-JUN21	µg/L	0.04	<0.04	ND	20	104	90	110	113	70	130
Thallium	EMS0135-JUN21	µg/L	0.005	<0.005	ND	20	100	90	110	106	70	130
Uranium	EMS0135-JUN21	µg/L	0.002	<0.002	ND	20	99	90	110	102	70	130
Vanadium	EMS0135-JUN21	µg/L	0.01	0	ND	20	105	90	110	108	70	130
Zinc	EMS0135-JUN21	µg/L	2	<0.002	ND	20	101	90	110	124	70	130



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QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0339-JUN21	µg/L	25	<25	ND	30	86	60	140	82	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0318-JUN21	µg/L	100	<100	6	30	88	60	140	84	60	140
F3 (C16-C34)	GCM0318-JUN21	µg/L	200	<200	14	30	88	60	140	84	60	140
F4 (C34-C50)	GCM0318-JUN21	µg/L	200	<200	10	30	88	60	140	84	60	140



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CA14275-JUN21 R1

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	EWL0349-JUN21	No unit	0.05	NA	0		100			NA		

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0347-JUN21	µg/L	0.5	< 0.5	ND	30	91	50	140	100	50	140
2-Methylnaphthalene	GCM0347-JUN21	µg/L	0.5	< 0.5	ND	30	91	50	140	101	50	140
Acenaphthene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	98	50	140	95	50	140
Acenaphthylene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	97	50	140	98	50	140
Anthracene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	81	50	140	92	50	140
Benzo(a)anthracene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	70	50	140	99	50	140
Benzo(a)pyrene	GCM0347-JUN21	µg/L	0.01	< 0.01	ND	30	63	50	140	74	50	140
Benzo(b+j)fluoranthene	GCM0347-JUN21	ug/L	0.1	< 0.1	ND	30	70	50	140	80	50	140
Benzo(ghi)perylene	GCM0347-JUN21	µg/L	0.2	< 0.2	ND	30	95	50	140	98	50	140
Benzo(k)fluoranthene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	68	50	140	76	50	140
Chrysene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	78	50	140	93	50	140
Dibenzo(a,h)anthracene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	83	50	140	98	50	140
Fluoranthene	GCM0347-JUN21	ug/L	0.1	< 0.1	ND	30	74	50	140	92	50	140
Fluorene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	94	50	140	94	50	140
Indeno(1,2,3-cd)pyrene	GCM0347-JUN21	µg/L	0.2	< 0.2	ND	30	91	50	140	102	50	140
Naphthalene	GCM0347-JUN21	µg/L	0.5	< 0.5	ND	30	95	50	140	99	50	140
Phenanthrene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	81	50	140	96	50	140
Pyrene	GCM0347-JUN21	µg/L	0.1	< 0.1	ND	30	71	50	140	97	50	140



FINAL REPORT

CA14275-JUN21 R1

QC SUMMARY

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	105	60	130	110	50	140
1,1,1-Trichloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	105	60	130	106	50	140
1,1,2,2-Tetrachloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	103	60	130	119	50	140
1,1,2-Trichloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	105	60	130	110	50	140
1,1-Dichloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	104	60	130	106	50	140
1,1-Dichloroethylene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	105	60	130	105	50	140
1,2-Dichlorobenzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	110	60	130	115	50	140
1,2-Dichloroethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	104	60	130	111	50	140
1,2-Dichloropropane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	106	60	130	108	50	140
1,3-Dichlorobenzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	108	60	130	112	50	140
1,4-Dichlorobenzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	109	60	130	114	50	140
Acetone	GCM0327-JUN21	µg/L	30	<30	ND	30	104	60	130	107	50	140
Benzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	107	60	130	110	50	140
Bromodichloromethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	104	60	130	105	50	140
Bromoform	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	102	60	130	114	50	140
Bromomethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	112	50	140	110	50	140
Carbon tetrachloride	GCM0327-JUN21	µg/L	0.2	<0.2	ND	30	105	60	130	108	50	140
Chlorobenzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	107	60	130	111	50	140
Chloroform	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	104	60	130	108	50	140
cis-1,2-Dichloroethene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	106	60	130	110	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-Dichloropropene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	107	60	130	111	50	140
Dibromochloromethane	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	103	60	130	108	50	140
Dichlorodifluoromethane	GCM0327-JUN21	µg/L	2.0	<2	ND	30	80	50	140	81	50	140
Ethylbenzene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	111	60	130	116	50	140
Ethylenedibromide	GCM0327-JUN21	µg/L	0.2	<0.2	ND	30	107	60	130	113	50	140
n-Hexane	GCM0327-JUN21	µg/L	1.0	<1	ND	30	114	60	130	117	50	140
m/p-xylene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	111	60	130	116	50	140
Methyl ethyl ketone	GCM0327-JUN21	ug/L	20	<20	ND	30	102	60	130	104	50	140
Methyl Isobutyl Ketone	GCM0327-JUN21	µg/L	20	<20	ND	30	99	50	140	102	50	140
Methyl-t-butyl Ether	GCM0327-JUN21	µg/L	2.0	<2	ND	30	92	60	130	103	50	140
Methylene Chloride	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	106	60	130	106	50	140
o-xylene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	113	60	130	118	50	140
Styrene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	111	60	130	118	50	140
Tetrachloroethylene (perchloroethylene)	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	108	60	130	109	50	140
Toluene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	108	60	130	110	50	140
trans-1,2-Dichloroethene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	125	60	130	125	50	140
trans-1,3-Dichloropropene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	108	60	130	115	50	140
Trichloroethylene	GCM0327-JUN21	µg/L	0.5	<0.5	ND	30	108	60	130	108	50	140
Trichlorofluoromethane	GCM0327-JUN21	µg/L	5.0	<5	ND	30	96	50	140	96	50	140
Vinyl Chloride	GCM0327-JUN21	µg/L	0.2	<0.2	ND	30	98	60	130	97	50	140

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND**FOOTNOTES**

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

SGS provides criteria information (such as regulatory or guideline limits and summary of limit exceedances) as a service. Every attempt is made to ensure the criteria information in this report is accurate and current, however, it is not guaranteed. Comparison to the most current criteria is the responsibility of the client and SGS assumes no responsibility for the accuracy of the criteria levels indicated. This document is issued, on the Client's behalf, by the Company under its General Conditions of Service available on request and accessible at http://www.sgs.com/terms_and_conditions.htm. The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

This report must not be reproduced, except in full. This report supersedes all previous versions.

-- End of Analytical Report --

Request for Laboratory Services and CHAIN OF CUSTODY

Laboratory Information Section - Lab use only

Received By: Sue Off
 Received Date: 06/16/2011 (mm/dd/yy)
 Received Time: 12:05 (hr : min)

Received By (signature): _____
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Cooling Agent Present: Yes No Type: Ice
 Temperature Upon Receipt ('C): 6C 6: 6C

LAB LIMS #: CA-14275 521

REPORT INFORMATION

Company: DS Consultants
 Contact: Kirstin Olsen
 Address: 6221 Hwy 7, Unit 16,
Noughan ON L4H0K8
 Phone: 437-928-2794
 Fax: _____

INVOICE INFORMATION

(Same as Report Information)
 Company: DS Consultants
 Contact: Accounting
 Address: _____
 Phone: _____

Email: Kirstin.olsen@dsconsultants.ca

REGULATIONS

O.Reg 153/04 O.Reg 406/19

Res/Park Soil Texture: _____
 Table 1 Ind/Com Coarse
 Table 2 Agr/Other Medium/Fine
 Table 3 MISA

Soil Volume <350m3 >350m3

Other Regulations: _____
 Reg 347/558 (3 Day min TAT)
 PWCO MMER
 CCME Other: _____

Sewer By-Law: _____
 Sanitary
 Storm
 Municipality: _____

RECORD OF SITE CONDITION (RSC) YES NO

ODWS Not Reportable *See note

SAMPLE IDENTIFICATION

1	2	3	4	5	6	7	8	9	10	11	12
MW21B-1	MW21B-2	Dup-1	Trip Blank								
June 16/21											
AM											
14	14	4	2								
EW											

Quotation #: _____ P.O. #: _____
 Project #: 19-323-100 Site Location/ID: _____

TURNAROUND TIME (TAT) REQUIRED
 Regular TAT (5-7 days)
 RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

Specify Due Date: _____

*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other	TCLP
Field Filtered (Y/N) <input checked="" type="checkbox"/>							
Metals & Inorganics <small>incl CrVI, CN,Hg pH,(B)(HWS),EC,SAR-soil (Cl, Na-water)</small>							
Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>							
ICP Metals only <small>Sb,As,Ba,Be,B,Cd,Cr,Co,Cu,Pb,Mo,Ni</small>							
PAHs only <input checked="" type="checkbox"/>							
SVOCs <small>all incl PAHs, ABNs, CPs</small>							
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
F1-F4 + BTEX <input checked="" type="checkbox"/>							
F1-F4 only <small>no BTEX</small>							
VOCs <small>all incl BTEX</small>							
BTEX only <input checked="" type="checkbox"/>							
Pesticides <small>Organochlorine or specify other</small>							
Appendix 2: 406/19 Leachate Screening Levels Table: _____							
Sewer Use: Specify pkg: _____							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
Specify TCLP tests <input type="checkbox"/> MS1 <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> B(a)P <input type="checkbox"/> AAN <input type="checkbox"/> Ignit.							

COMMENTS:

*PRESERVATIVE ADDED TO FILTER FOR METALS

Observations/Comments/Special Instructions

Sampled By (NAME): Holly Bowman Signature: _____ Date: 06/16/21 (mm/dd/yy)
 Requisitioned by (NAME): Holly Bowman Signature: _____ Date: 06/16/21 (mm/dd/yy)

Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection, handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at http://www.sgs.com/terms_and_conditions.htm. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Yellow & White Copy - SGS
 Pink Copy - Client



FINAL REPORT

CA14366-MAR21 R

19-323-100, Polermo Village

Prepared for

DS Consultants

First Page

CLIENT DETAILS		LABORATORY DETAILS	
Client	DS Consultants	Project Specialist	Jill Campbell, B.Sc.,GISAS
Address	6221 Highway 7 Unit 16 Vaughan, Ontario L4H 0K8, Canada	Laboratory	SGS Canada Inc.
Contact	Kirstin Olsen	Address	185 Concession St., Lakefield ON, K0L 2H0
Telephone	905-264-9393	Telephone	2165
Facsimile	905-264-2685	Facsimile	705-652-6365
Email	kirstin.olsen@dsconsultants.ca	Email	jill.campbell@sgs.com
Project	19-323-100, Polermo Village	SGS Reference	CA14366-MAR21
Order Number		Received	03/10/2021
Samples	Ground Water (5)	Approved	03/17/2021
		Report Number	CA14366-MAR21 R
		Date Reported	03/17/2021

COMMENTS

CCME Method Compliance: Analyses were conducted using analytical procedures that comply with the Reference Method for the CWS for Petroleum Hydrocarbons in Soil and have been validated for use at the SGS laboratory, Lakefield, ON site.

Quality Compliance: Instrument performance / calibration quality criteria were met and extraction and analysis limits for holding times were met.

nC6 and nC10 response factors within 30% of response factor for toluene: YES

nC10, nC16 and nC34 response factors within 10% of the average response for the three compounds: YES

C50 response factors within 70% of nC10 + nC16 + nC34 average: YES

Linearity is within 15%: YES

F4G - gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

The results for F4 and F4G are both reported and the greater of the two values is to be used in application to the CWS PHC.

Benzo(b)fluoranthene results for comparison to the standard are reported as benzo(b+j)fluoranthene. Benzo(b)fluoranthene and benzo(j)fluoranthene co-elute and cannot be reported individually by the analytical method used.

Temperature of Sample upon Receipt: 5 degrees C

Cooling Agent Present:Yes

Custody Seal Present:Yes

Chain of Custody Number:019190

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - BTEX (WATER)

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
BTEX									
Benzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylbenzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Toluene	µg/L	0.5	0.8	0.8	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Xylene (total)	µg/L	0.5	72	72	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
m/p-xylene	µg/L	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
o-xylene	µg/L	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

PACKAGE: REG153 - Hydrides (WATER)

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
Hydrides							
Antimony	µg/L	0.9	1.5	1.5	< 0.9	< 0.9	< 0.9
Arsenic	µg/L	0.2	13	13	1.1	1.2	1.3
Selenium	µg/L	0.04	5	5	0.58	2.00	1.30



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Metals and Inorganics

(WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result
Metals and Inorganics							
Barium	µg/L	0.02	610	610	61.9	65.0	67.1
Beryllium	µg/L	0.007	0.5	0.5	< 0.007	< 0.007	< 0.007
Boron	µg/L	2	1700	1700	739	377	126
Cadmium	µg/L	0.003	0.5	0.5	0.008	0.007	0.008
Chromium	µg/L	0.08	11	11	0.15	0.10	0.13
Cobalt	µg/L	0.004	3.8	3.8	0.337	0.112	0.768
Copper	µg/L	0.2	5	5	2.0	1.3	0.8
Lead	µg/L	0.01	1.9	1.9	0.02	0.02	< 0.01
Molybdenum	µg/L	0.04	23	23	11.7	19.8	16.6
Nickel	µg/L	0.1	14	14	1.6	0.7	2.4
Silver	µg/L	0.05	0.3	0.3	< 0.05	< 0.05	< 0.05
Thallium	µg/L	0.005	0.5	0.5	0.037	0.031	0.028
Uranium	µg/L	0.002	8.9	8.9	17.8	5.78	6.76
Vanadium	µg/L	0.01	3.9	3.9	1.80	1.96	1.07
Zinc	µg/L	2	160	160	4	< 2	< 2



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - Na (WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result
Na							
Sodium	µg/L	10	490000	490000	149000	82400	21800

PACKAGE: REG153 - Other (ORP) (WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result
Other (ORP)							
Mercury (total)	µg/L	0.01	0.1	0.1	< 0.01	< 0.01	< 0.01
pH	No unit	0.05			7.44	7.65	7.58
Chloride	µg/L	1000	790000	790000	89000	29000	26000
Chromium VI	µg/L	0.2	25	25	< 0.2	0.2	< 0.2
Cyanide (free)	µg/L	2	5	5	< 2	< 2	< 2

PACKAGE: REG153 - PAHs (WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result
PAHs							
Acenaphthene	µg/L	0.1	4.1	4.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	µg/L	0.1	1	1	< 0.1	< 0.1	< 0.1
Anthracene	µg/L	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	µg/L	0.1	0.2	0.2	< 0.1	< 0.1	< 0.1



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - PAHs (WATER)**

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
PAHs (continued)							
Benzo(a)pyrene	µg/L	0.01	0.01	0.01	< 0.01	< 0.01	< 0.01
Benzo(b+j)fluoranthene	µg/L	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	µg/L	0.2	0.2	0.2	< 0.2	< 0.2	< 0.2
Benzo(k)fluoranthene	µg/L	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1
Chrysene	µg/L	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	µg/L	0.1	0.2	0.2	< 0.1	< 0.1	< 0.1
Fluoranthene	µg/L	0.1	0.4	0.4	< 0.1	< 0.1	< 0.1
Fluorene	µg/L	0.1	120	120	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.2	0.2	< 0.2	< 0.2	< 0.2
1-Methylnaphthalene	µg/L	0.5			< 0.5	< 0.5	< 0.5
2-Methylnaphthalene	µg/L	0.5			< 0.5	< 0.5	< 0.5
Methylnaphthalene, 2-(1-)	µg/L	0.5	2	2	< 0.5	< 0.5	< 0.5
Naphthalene	µg/L	0.5	7	7	< 0.5	< 0.5	< 0.5
Phenanthrene	µg/L	0.1	0.1	0.1	< 0.1	< 0.1	< 0.1
Pyrene	µg/L	0.1	0.2	0.2	< 0.1	< 0.1	< 0.1



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - PHCs (WATER)

Sample Number	7	8	9	10
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
-----------	-------	----	----	----	--------	--------	--------	--------

PHCs

F1 (C6-C10)	µg/L	25	420	420	< 25	< 25	< 25	< 25
F1-BTEX (C6-C10)	µg/L	25			< 25	< 25	< 25	< 25
F2 (C10-C16)	µg/L	100	150	150	< 100	< 100	< 100	
F3 (C16-C34)	µg/L	200	500	500	< 200	< 200	< 200	
F4 (C34-C50)	µg/L	200	500	500	< 200	< 200	< 200	
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES	YES	

PACKAGE: REG153 - SVOC Surrogates (WATER)

Sample Number	7	8	9
Sample Name	MW21-3	MW21-8	MW21-15
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result
-----------	-------	----	----	----	--------	--------	--------

SVOC Surrogates

Surr 2-Methylnaphthalene-D10	Surr Rec %	-			65	67	65
Surr Fluoranthene-D10	Surr Rec %	-			75	77	78
Surr 2-Fluorobiphenyl	Surr Rec %	-			55	59	60
Surr 4-Terphenyl-d14	Surr Rec %	-			91	92	95



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: REG153 - THMs (VOC) (WATER)

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
THMs (VOC)									
Bromodichloromethane	µg/L	0.5	2	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromoform	µg/L	0.5	5	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	µg/L	0.5	2	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5

PACKAGE: REG153 - VOC Surrogates (WATER)

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOC Surrogates									
Surr 1,2-Dichloroethane-d4	Surr Rec %	-			109	107	108	110	109
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-			99	97	98	96	97
Surr 4-Bromofluorobenzene	Surr Rec %	-			87	86	86	86	85

PACKAGE: REG153 - VOCs (WATER)

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs									
Acetone	µg/L	30	2700	2700	< 30	< 30	< 30	< 30	< 30
Bromomethane	µg/L	0.5	0.89	0.89	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	µg/L	0.2	0.2	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - VOCs (WATER)**

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs (continued)									
Chloroform	µg/L	0.5	2	2	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-Dichlorobenzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,4-Dichlorobenzene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	590	590	< 2	< 2	< 2	< 2	< 2
1,1-Dichloroethane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloroethane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1-Dichloroethylene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	1.6	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	1.6	1.6	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	µg/L	0.5			< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,3-dichloropropene (total)	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Ethylenedibromide	µg/L	0.2	0.2	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
n-Hexane	µg/L	1.0	5	5	< 1	< 1	< 1	< 1	< 1
Methyl ethyl ketone	µg/L	20	400	400	< 20	< 20	< 20	< 20	< 20
Methyl Isobutyl Ketone	µg/L	20	640	640	< 20	< 20	< 20	< 20	< 20
Methyl-t-butyl Ether	µg/L	2.0	15	15	< 2	< 2	< 2	< 2	< 2
Methylene Chloride	µg/L	0.5	5	5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Styrene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethylene (perchloroethylene)	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	1.1	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5



FINAL REPORT

CA14366-MAR21 R

Client: DS Consultants

Project: 19-323-100, Polermo Village

Project Manager: Kirstin Olsen

Samplers: John Gaviria

PACKAGE: **REG153 - VOCs (WATER)**

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

L2 = REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9	10	11
Sample Name	MW21-3	MW21-8	MW21-15	Dup-01	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	09/03/2021	09/03/2021	09/03/2021	09/03/2021	09/03/2021

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs (continued)									
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,1-Trichloroethane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
1,1,2-Trichloroethane	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichloroethylene	µg/L	0.5	0.5	0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	150	150	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride	µg/L	0.2	0.5	0.5	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED	REG153 / GROUND WATER / FINE - TABLE 1 - All Types of Property Uses - UNDEFINED
				L1	L2

MW21-3

Uranium	SM 3030/EPA 200.8	µg/L	17.8	8.9	8.9
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HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/ Prepared	Analysed	Holding Time	Approved
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Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-026

MW21-3	DIO5018-MAR21	7	03/09/2021	03/10/2021	03/16/2021	03/16/2021	04/06/2021	03/16/2021
MW21-8	DIO5018-MAR21	8	03/09/2021	03/10/2021	03/16/2021	03/16/2021	04/06/2021	03/16/2021
MW21-15	DIO5018-MAR21	9	03/09/2021	03/10/2021	03/16/2021	03/16/2021	04/06/2021	03/16/2021

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-[ENV]SFA-LAK-AN-005

MW21-3	SKA0100-MAR21	7	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/11/2021
MW21-8	SKA0100-MAR21	8	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/11/2021
MW21-15	SKA0100-MAR21	9	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/11/2021

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-[ENV]SKA-LAK-AN-012

MW21-3	SKA0106-MAR21	7	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/12/2021
MW21-8	SKA0106-MAR21	8	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/12/2021
MW21-15	SKA0106-MAR21	9	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/12/2021

Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

MW21-3	EHG0013-MAR21	7	03/09/2021	03/10/2021	03/11/2021	03/11/2021	04/06/2021	03/12/2021
MW21-8	EHG0013-MAR21	8	03/09/2021	03/10/2021	03/11/2021	03/11/2021	04/06/2021	03/12/2021
MW21-15	EHG0013-MAR21	9	03/09/2021	03/10/2021	03/11/2021	03/11/2021	04/06/2021	03/12/2021

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-006

MW21-3	EMS0077-MAR21	7	03/09/2021	03/10/2021	03/12/2021	03/15/2021	05/08/2021	03/17/2021
MW21-8	EMS0078-MAR21	8	03/09/2021	03/10/2021	03/12/2021	03/15/2021	05/08/2021	03/17/2021
MW21-15	EMS0077-MAR21	9	03/09/2021	03/10/2021	03/12/2021	03/15/2021	05/08/2021	03/17/2021

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

MW21-3	GCM0201-MAR21	7	03/09/2021	03/10/2021			03/23/2021	03/15/2021
MW21-8	GCM0201-MAR21	8	03/09/2021	03/10/2021			03/23/2021	03/15/2021
MW21-15	GCM0201-MAR21	9	03/09/2021	03/10/2021			03/23/2021	03/15/2021
Dup-01	GCM0201-MAR21	10	03/09/2021	03/10/2021			03/23/2021	03/15/2021

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-[ENV]GC-LAK-AN-010

MW21-3	GCM0166-MAR21	7	03/09/2021	03/10/2021			03/23/2021	03/12/2021
MW21-8	GCM0166-MAR21	8	03/09/2021	03/10/2021			03/23/2021	03/12/2021
MW21-15	GCM0166-MAR21	9	03/09/2021	03/10/2021			03/23/2021	03/12/2021

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

MW21-3	EWL0184-MAR21	7	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/16/2021	03/11/2021
MW21-8	EWL0184-MAR21	8	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/16/2021	03/11/2021
MW21-15	EWL0184-MAR21	9	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/16/2021	03/11/2021

Semi-Volatile Organics

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

MW21-3	GCM0230-MAR21	7	03/09/2021	03/10/2021			03/29/2021	03/17/2021
MW21-8	GCM0230-MAR21	8	03/09/2021	03/10/2021			03/23/2021	03/17/2021
MW21-15	GCM0230-MAR21	9	03/09/2021	03/10/2021			03/29/2021	03/17/2021

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-004

MW21-3	GCM0185-MAR21	7	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/15/2021
MW21-8	GCM0185-MAR21	8	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/15/2021
MW21-15	GCM0185-MAR21	9	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/15/2021
Dup-01	GCM0203-MAR21	10	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/15/2021
Trip Blank	GCM0185-MAR21	11	03/09/2021	03/10/2021	03/11/2021	03/11/2021	03/23/2021	03/15/2021



FINAL REPORT

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QC SUMMARY

Anions by discrete analyzer

Method: US EPA 325.2 | Internal ref.: ME-CA-IENVIEWL-LAK-AN-026

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chloride	DIO5018-MAR21	ug/L	1000	<1000	1	20	104	80	120	101	75	125

Cyanide by SFA

Method: SM 4500 | Internal ref.: ME-CA-IENVISFA-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Cyanide (free)	SKA0100-MAR21	µg/L	2	<2	10	10	103	90	110	99	75	125

Hexavalent Chromium by SFA

Method: EPA218.6/EPA3060A | Internal ref.: ME-CA-IENVISKA-LAK-AN-012

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Chromium VI	SKA0106-MAR21	ug/L	0.2	<0.2	ND	20	94	80	120	79	75	125



FINAL REPORT

CA14366-MAR21 R

QC SUMMARY

Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-IENVISPE-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury (total)	EHG0013-MAR21	ug/L	0.01	<0.01	ND	20	112	80	120	110	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Silver	EMS0077-MAR21	ug/L	0.05	<0.00005	ND	20	101	90	110	95	70	130
Arsenic	EMS0077-MAR21	µg/L	0.2	<0.0002	2	20	103	90	110	102	70	130
Barium	EMS0077-MAR21	µg/L	0.02	<0.00002	3	20	98	90	110	107	70	130
Beryllium	EMS0077-MAR21	µg/L	0.007	<0.00007	ND	20	97	90	110	101	70	130
Boron	EMS0077-MAR21	µg/L	2	<0.002	1	20	97	90	110	94	70	130
Cadmium	EMS0077-MAR21	µg/L	0.003	<0.000003	6	20	99	90	110	103	70	130
Cobalt	EMS0077-MAR21	µg/L	0.004	<0.000004	1	20	101	90	110	112	70	130
Chromium	EMS0077-MAR21	ug/L	0.08	<0.00008	0	20	101	90	110	106	70	130
Copper	EMS0077-MAR21	ug/L	0.2	<0.0002	0	20	101	90	110	110	70	130
Molybdenum	EMS0077-MAR21	ug/L	0.04	<0.00004	13	20	98	90	110	105	70	130
Sodium	EMS0077-MAR21	ug/L	10	<0.01	1	20	108	90	110	106	70	130
Nickel	EMS0077-MAR21	µg/L	0.1	<0.0001	1	20	101	90	110	110	70	130
Lead	EMS0077-MAR21	µg/L	0.01	<0.00001	14	20	97	90	110	104	70	130
Antimony	EMS0077-MAR21	ug/L	0.9	<0.0009	ND	20	101	90	110	106	70	130
Selenium	EMS0077-MAR21	µg/L	0.04	<0.00004	ND	20	103	90	110	106	70	130
Thallium	EMS0077-MAR21	µg/L	0.005	<0.000005	3	20	93	90	110	100	70	130
Uranium	EMS0077-MAR21	µg/L	0.002	<0.000002	1	20	97	90	110	102	70	130
Vanadium	EMS0077-MAR21	µg/L	0.01	<0.00001	4	20	100	90	110	106	70	130
Zinc	EMS0077-MAR21	µg/L	2	<0.002	1	20	105	90	110	124	70	130
Silver	EMS0078-MAR21	ug/L	0.05	< 0.05	ND	20	101	90	110	100	70	130

QC SUMMARY

Metals in aqueous samples - ICP-MS (continued)

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-IENVISPE-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Arsenic	EMS0078-MAR21	µg/L	0.2	< 0.2	ND	20	103	90	110	104	70	130
Barium	EMS0078-MAR21	µg/L	0.02	< 0.02	0	20	98	90	110	94	70	130
Beryllium	EMS0078-MAR21	µg/L	0.007	< 0.07	ND	20	97	90	110	97	70	130
Boron	EMS0078-MAR21	µg/L	2	< 2	0	20	97	90	110	NV	70	130
Cadmium	EMS0078-MAR21	µg/L	0.003	< 0.003	ND	20	99	90	110	95	70	130
Cobalt	EMS0078-MAR21	µg/L	0.004	< 0.004	ND	20	101	90	110	101	70	130
Chromium	EMS0078-MAR21	ug/L	0.08	< 0.08	ND	20	101	90	110	104	70	130
Copper	EMS0078-MAR21	ug/L	0.2	< 0.2	3	20	101	90	110	87	70	130
Molybdenum	EMS0078-MAR21	ug/L	0.04	< 0.04	3	20	98	90	110	100	70	130
Sodium	EMS0078-MAR21	ug/L	10	< 10	1	20	108	90	110	110	70	130
Nickel	EMS0078-MAR21	µg/L	0.1	< 0.1	ND	20	101	90	110	104	70	130
Lead	EMS0078-MAR21	µg/L	0.01	< 0.01	0	20	97	90	110	96	70	130
Antimony	EMS0078-MAR21	ug/L	0.9	< 0.09	ND	20	101	90	110	96	70	130
Selenium	EMS0078-MAR21	µg/L	0.04	< 0.04	ND	20	103	90	110	109	70	130
Thallium	EMS0078-MAR21	µg/L	0.005	< 0.005	ND	20	93	90	110	94	70	130
Uranium	EMS0078-MAR21	µg/L	0.002	< 0.002	2	20	97	90	110	98	70	130
Vanadium	EMS0078-MAR21	µg/L	0.01	< 0.01	ND	20	100	90	110	107	70	130
Zinc	EMS0078-MAR21	µg/L	2	< 2	ND	20	105	90	110	113	70	130



FINAL REPORT

CA14366-MAR21 R

QC SUMMARY

Petroleum Hydrocarbons (F1)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F1 (C6-C10)	GCM0201-MAR21	µg/L	25	<25	ND	30	92	60	140	95	60	140

Petroleum Hydrocarbons (F2-F4)

Method: CCME Tier 1 | Internal ref.: ME-CA-IENVIGC-LAK-AN-010

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
F2 (C10-C16)	GCM0166-MAR21	µg/L	100	<100	ND	30	95	60	140	94	60	140
F3 (C16-C34)	GCM0166-MAR21	µg/L	200	<200	ND	30	95	60	140	94	60	140
F4 (C34-C50)	GCM0166-MAR21	µg/L	200	<200	ND	30	95	60	140	94	60	140



FINAL REPORT

CA14366-MAR21 R

QC SUMMARY

pH

Method: SM 4500 | Internal ref.: ME-CA-ENVIEWL-LAK-AN-006

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
pH	EWL0184-MAR21	No unit	0.05	NA	0		101			NA		

QC SUMMARY

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-IENVIGC-LAK-AN-005

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1-Methylnaphthalene	GCM0230-MAR21	µg/L	0.5	< 0.5	ND	30	83	50	140	78	50	140
2-Methylnaphthalene	GCM0230-MAR21	µg/L	0.5	< 0.5	ND	30	82	50	140	78	50	140
Acenaphthene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	88	50	140	81	50	140
Acenaphthylene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	83	50	140	73	50	140
Anthracene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	91	50	140	89	50	140
Benzo(a)anthracene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	89	50	140	85	50	140
Benzo(a)pyrene	GCM0230-MAR21	ug/L	0.01	< 0.01	ND	30	94	50	140	88	50	140
Benzo(b+j)fluoranthene	GCM0230-MAR21	ug/L	0.1	< 0.1	ND	30	92	50	140	85	50	140
Benzo(ghi)perylene	GCM0230-MAR21	µg/L	0.2	< 0.2	ND	30	89	50	140	81	50	140
Benzo(k)fluoranthene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	95	50	140	89	50	140
Chrysene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	87	50	140	83	50	140
Dibenzo(a,h)anthracene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	103	50	140	101	50	140
Fluoranthene	GCM0230-MAR21	ug/L	0.1	< 0.1	ND	30	78	50	140	75	50	140
Fluorene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	99	50	140	88	50	140
Indeno(1,2,3-cd)pyrene	GCM0230-MAR21	µg/L	0.2	< 0.2	ND	30	88	50	140	83	50	140
Naphthalene	GCM0230-MAR21	µg/L	0.5	< 0.5	ND	30	94	50	140	88	50	140
Phenanthrene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	93	50	140	90	50	140
Pyrene	GCM0230-MAR21	µg/L	0.1	< 0.1	ND	30	90	50	140	76	50	140

QC SUMMARY

Volatile Organics

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	99	50	140
1,1,1-Trichloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	97	60	130	102	50	140
1,1,2,2-Tetrachloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	96	50	140
1,1,2-Trichloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	99	50	140
1,1-Dichloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	97	60	130	102	50	140
1,1-Dichloroethylene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	104	50	140
1,2-Dichlorobenzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	102	50	140
1,2-Dichloroethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	101	50	140
1,2-Dichloropropane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	96	60	130	100	50	140
1,3-Dichlorobenzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	100	50	140
1,4-Dichlorobenzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	101	50	140
Acetone	GCM0185-MAR21	µg/L	30	<30	ND	30	98	60	130	92	50	140
Benzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	104	50	140
Bromodichloromethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	98	50	140
Bromoform	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	96	50	140
Bromomethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	50	140	102	50	140
Carbon tetrachloride	GCM0185-MAR21	µg/L	0.2	<0.2	ND	30	98	60	130	104	50	140
Chlorobenzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	102	50	140
Chloroform	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	101	50	140
cis-1,2-Dichloroethene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	97	60	130	103	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-Dichloropropene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	100	50	140
Dibromochloromethane	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	96	50	140
Dichlorodifluoromethane	GCM0185-MAR21	µg/L	2.0	<2	ND	30	96	50	140	105	50	140
Ethylbenzene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	107	50	140
Ethylenedibromide	GCM0185-MAR21	µg/L	0.2	<0.2	ND	30	98	60	130	98	50	140
n-Hexane	GCM0185-MAR21	µg/L	1.0	<1	ND	30	102	60	130	107	50	140
m/p-xylene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	101	60	130	108	50	140
Methyl ethyl ketone	GCM0185-MAR21	ug/L	20	<20	ND	30	97	60	130	93	50	140
Methyl Isobutyl Ketone	GCM0185-MAR21	µg/L	20	<20	ND	30	96	50	140	93	50	140
Methyl-t-butyl Ether	GCM0185-MAR21	µg/L	2.0	<2	ND	30	100	60	130	101	50	140
Methylene Chloride	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	101	50	140
o-xylene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	106	50	140
Styrene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	102	60	130	107	50	140
Tetrachloroethylene (perchloroethylene)	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	104	50	140
Toluene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	103	50	140
trans-1,2-Dichloroethene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	103	50	140
trans-1,3-Dichloropropene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	98	60	130	99	50	140
Trichloroethylene	GCM0185-MAR21	µg/L	0.5	<0.5	ND	30	97	60	130	102	50	140
Trichlorofluoromethane	GCM0185-MAR21	µg/L	5.0	<5	ND	30	98	50	140	107	50	140
Vinyl Chloride	GCM0185-MAR21	µg/L	0.2	<0.2	ND	30	98	60	130	104	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
1,1,1,2-Tetrachloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	93	50	140
1,1,1-Trichloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	92	60	130	94	50	140
1,1,2,2-Tetrachloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	96	60	130	91	50	140
1,1,2-Trichloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	96	60	130	94	50	140
1,1-Dichloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	92	60	130	94	50	140
1,1-Dichloroethylene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	90	60	130	92	50	140
1,2-Dichlorobenzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	95	50	140
1,2-Dichloroethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	93	50	140
1,2-Dichloropropane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	92	60	130	96	50	140
1,3-Dichlorobenzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	97	60	130	95	50	140
1,4-Dichlorobenzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	95	50	140
Acetone	GCM0203-MAR21	µg/L	30	<30	ND	30	96	60	130	96	50	140
Benzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	97	50	140
Bromodichloromethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	95	60	130	92	50	140
Bromoform	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	90	50	140
Bromomethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	91	50	140	91	50	140
Carbon tetrachloride	GCM0203-MAR21	µg/L	0.2	<0.2	ND	30	91	60	130	93	50	140
Chlorobenzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	96	60	130	95	50	140
Chloroform	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	95	50	140
cis-1,2-Dichloroethene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	97	50	140

QC SUMMARY

Volatile Organics (continued)

Method: EPA 5030B/8260C | Internal ref.: ME-CA-ENVIGC-LAK-AN-004

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
cis-1,3-Dichloropropene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	93	60	130	95	50	140
Dibromochloromethane	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	93	60	130	92	50	140
Dichlorodifluoromethane	GCM0203-MAR21	µg/L	2.0	<2	ND	30	72	50	140	75	50	140
Ethylbenzene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	99	50	140
Ethylenedibromide	GCM0203-MAR21	µg/L	0.2	<0.2	ND	30	98	60	130	95	50	140
n-Hexane	GCM0203-MAR21	µg/L	1.0	<1	ND	30	89	60	130	89	50	140
m/p-xylene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	99	50	140
Methyl ethyl ketone	GCM0203-MAR21	ug/L	20	<20	ND	30	97	60	130	96	50	140
Methyl Isobutyl Ketone	GCM0203-MAR21	µg/L	20	<20	ND	30	100	50	140	99	50	140
Methyl-t-butyl Ether	GCM0203-MAR21	µg/L	2.0	<2	ND	30	98	60	130	102	50	140
Methylene Chloride	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	94	50	140
o-xylene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	99	60	130	99	50	140
Styrene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	101	60	130	100	50	140
Tetrachloroethylene (perchloroethylene)	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	94	60	130	94	50	140
Toluene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	96	60	130	97	50	140
trans-1,2-Dichloroethene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	93	60	130	95	50	140
trans-1,3-Dichloropropene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	100	60	130	95	50	140
Trichloroethylene	GCM0203-MAR21	µg/L	0.5	<0.5	ND	30	93	60	130	96	50	140
Trichlorofluoromethane	GCM0203-MAR21	µg/L	5.0	<5	ND	30	88	50	140	89	50	140
Vinyl Chloride	GCM0203-MAR21	µg/L	0.2	<0.2	ND	30	86	60	130	89	50	140

QC SUMMARY

Method Blank: a blank matrix that is carried through the entire analytical procedure. Used to assess laboratory contamination.

Duplicate: Paired analysis of a separate portion of the same sample that is carried through the entire analytical procedure. Used to evaluate measurement precision.

LCS/Spike Blank: Laboratory control sample or spike blank refer to a blank matrix to which a known amount of analyte has been added. Used to evaluate analyte recovery and laboratory accuracy without sample matrix effects.

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

Reference Material: a material or substance matrix matched to the samples that contains a known amount of the analyte of interest. A reference material may be used in place of a matrix spike.

RL: Reporting limit

RPD: Relative percent difference

AC: Acceptance criteria

Multielement Scan Qualifier: as the number of analytes in a scan increases, so does the chance of a limit exceedance by random chance as opposed to a real method problem. Thus, in multielement scans, for the LCS and matrix spike, up to 10% of the analytes may exceed the quoted limits by up to 10% absolute and the spike is considered acceptable.

Duplicate Qualifier: for duplicates as the measured result approaches the RL, the uncertainty associated with the value increases dramatically, thus duplicate acceptance limits apply only where the average of the two duplicates is greater than five times the RL.

Matrix Spike Qualifier: for matrix spikes, as the concentration of the native analyte increases, the uncertainty of the matrix spike recovery increases. Thus, the matrix spike acceptance limits apply only when the concentration of the matrix spike is greater than or equal to the concentration of the native analyte.

LEGEND

FOOTNOTES

NSS Insufficient sample for analysis.
RL Reporting Limit.
 ↑ Reporting limit raised.
 ↓ Reporting limit lowered.
NA The sample was not analysed for this analyte
ND Non Detect

Samples analysed as received. Solid samples expressed on a dry weight basis. "Temperature Upon Receipt" is representative of the whole shipment and may not reflect the temperature of individual samples.

Analysis conducted on samples submitted pursuant to or as part of Reg. 153/04, are in accordance to the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act" published by the Ministry and dated March 9, 2004 as amended.

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-- End of Analytical Report --

