

Phase Two Environmental Site Assessment

“Area 1”

1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350
Bronte Road

Oakville, Ontario

Prepared For:

Bronte River LP

4900 Palladium Way, Suite 105

Burlington, Ontario

L7M 0W7

DS Project No : 20-186-100

Date: 2023-07-12



DS CONSULTANTS LTD.
6221 Highway 7, Unit 16
Vaughan, Ontario, L4H 0K8
Telephone: (905) 264-9393
www.dsconsultants.ca

Executive Summary

DS Consultants Ltd. (DS) was retained by Bronte River LP to complete a Phase Two Environmental Site Assessment (ESA) of the Site comprised of a portion of the properties associated with the municipal addresses of 1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario,, identified as “Area 1” and herein collectively referred to as the “Phase Two Property” or “Site”. It is DS’ understanding that this Phase Two ESA has been requested for due diligence purposes associated with the proposed redevelopment of the Property for residential purposes. It is further understood that the proposed redevelopment will consist of residential townhouses and detached homes.

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 a 3.76 hectare parcel of land comprised of five (5) separate residential properties with the municipal addresses of: 1300, 1316, 1326, 1342 and 1350 Bronte Road. Only the north portion of the property with the municipal address of 1300 and 1316 Bronte Road, and the east portion of 1342 Bronte Road from part of the Phase Two Property. The Site is situated within mixed residential, commercial and parkland neighborhood in the Town of Oakville, Ontario. The Phase Two Property is located approximately 700 metres south of the intersection of Bronte Road and Upper Middle Road West. The Site included the following features at the time of this assessment:

- ◆ The portion of 1300 Bronte Road associated with the Site contained a large two-story residential dwelling located in the southwestern portion of the Site. The residential dwelling was approximately 270 m² in area, and contained one (1) aboveground fuel oil storage tank (AST) within the north-western corner of the basement. One recreational pond (Pond 1) was located within the central portion of the property. One (1) vehicle parking garage was located within the central portion of the property (Shed 1);
- ◆ The portion of 1316 Bronte Road associated with the Site contained a single-story residential dwelling approximately 80 m² in area, containing a heating fuel oil AST located immediately north of the house;

- ◆ 1326 Bronte Road consisted of a rectangular shaped parcel of land including a two-story residential dwelling approximately 170 m². 1326 Bronte Road also contained a barn (Shed 3) used as a general storage space. The residential dwelling had a heating fuel oil AST within the northwestern corner of the basement.
- ◆ The portion of 1342 Bronte Road associated with the Site included a two-story residential dwelling approximately 140 m² in area with a separate barn (Shed 4) used as a general storage space. The residential dwelling had a heating fuel oil AST within the northwestern corner of the basement.
- ◆ 1350 Bronte Road was located within the northeastern portion of the Site. The rectangular shaped parcel of land was developed with a single-story residential dwelling approximately 260 m² in area, with an attached single car garage, a work/storage shed and a greenhouse. One (1) heating fuel oil AST within the basement was reportedly utilized for the residential dwelling up until approximately 2005 when it was removed and a gas fired furnace installed.

The Phase One ESA completed in March 2023 by DS indicated that Site was historically operated as an orchard, prior to the 1930s through to the mid-1980s. 1326 and 1342 Bronte Road were utilized for residential purposes from the 1930s until present. 1300 and 1316 Bronte Road were utilized for residential purposes from the 1990s to present. The Phase Two Property is currently used for residential purposes.

The Phase One ESA completed by DS also indicated that a total of eighteen (18) Potentially Contaminating Activities (PCAs) were identified, which were considered to be contributing to eight (8) APECs on the Phase Two Property. A summary of the APECs, associated PCAs, and contaminants of potential concern (copc) identified is presented in the table below:

Table E-1: Summary of APECs

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
APEC-1	Fuel Oil tank at the residential dwelling at 1300 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-1	PHCs, PAHs, BTEX	Soil and groundwater
APEC-2	Fuel Oil tank at the residential	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-2	PHCs, PAHs, BTEX	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)
	dwelling at 1326 Bronte Road				
APEC-3	Fuel Oil tank at the residential dwelling at 1342 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-3	PHCs, PAHs, BTEX	Soil
APEC-4	Fuel Oil tank at the residential dwelling at 1316 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-4	PHCs, PAHs, BTEX	Soil and groundwater
APEC-5	Previous Fuel Oil tank at the residential dwelling at 1350 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-5	PHCs, PAHs, BTEX	Soil and groundwater
APEC-6	Soil berm located north of Pond 1 at 1300 Bronte Road	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-6	PAHs, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR	Soil
APEC-7A	Entire Phase One Property	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-7	OCs, metals As, Sb, Se, CN-	Soil
APEC-7B	Graded land at the residential dwelling at 1300 Bronte Road	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-8	OCs, metals As, Sb, Se, CN-	Soil

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

The Phase Two ESA involved the advancement of thirteen (13) boreholes, which were completed between August 12, 2020 and May 25, 2023. The boreholes were advanced to a maximum depth of 8.6 metres below ground surface (mbgs) under the supervision of DS

personnel. Groundwater monitoring wells were installed in seven (7) of the boreholes to facilitate the collection of groundwater samples and the assessment of groundwater flow direction.

Additional soil sampling was also conducted on August 20, 2020 for the purpose of assessing the soil quality with respect to APECs 6, 7A and 7B. A total of seventeen (17) hand-augered boreholes were advanced to a maximum depth of 0.5 mbgs including: thirteen (13) boreholes located across the entire property and advanced to a depth of 0.5 mbgs in order to investigate potential pesticide impacts (APEC 7A and APEC 7B) and four (4) boreholes (SB1 to SB4) were advanced at the soil berm to the east of Pond 1 advanced to a depth of 0.1 mbgs in order to identify potential impacts from fill material (APEC 5).

The borehole locations were determined based on the findings of the Phase One ESA. Soil samples were collected and submitted for chemical analysis as follows:

- ◆ Seventeen (17) soil samples, including 3 field duplicates for QA/QC purposes, were submitted for analysis of metals and hydride forming metals.
- ◆ Eight (8) soil samples were submitted for analysis of CN-, Hg, Cr(VI), B-HWS, Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH (Other Regulated Parameters, ORPs). An additional two (2) samples were submitted for analysis of pH only.
- ◆ Fifteen (15) soil samples, including 2 field duplicates for QA/QC purposes, were submitted for analysis of PHCs F1-F4 and BTEX.
- ◆ Eight (8) soil samples, including 1 field duplicate for QA/QC purposes, were submitted for analysis of VOCs.
- ◆ Ten (10) soil samples, including 1 field duplicate for QA/QC purposes, were submitted for analysis of PAHs.
- ◆ Twenty-four (24) soil samples, including 3 field duplicates for QA/QC purposes, were submitted for analysis of OC Pesticides.

Groundwater samples were collected from the monitoring wells installed and submitted for chemical analysis as follows:

- ◆ Two (2) groundwater samples were submitted for analysis of Metals, As, Sb, Se, CN-, Cr(VI), Hg, Na and Cl.
- ◆ Four (4) groundwater samples were submitted for analysis of PHCs F1-F4 and BTEX.
- ◆ Two (2) groundwater samples (including 1 trip blank for QA/QC purpose) were submitted for analysis of VOCs.

- ◆ Six (6) groundwater samples, including two (2) field duplicates for QA/QC purpose were submitted for analysis of PAHs.
- ◆ One (1) groundwater sample was submitted for analysis of OC Pesticides.

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

- ◆ A surficial layer of topsoil ranging in thickness from 75mm to 150mm was found in the boreholes except MW21-1. It should be noted that the thickness of the topsoil explored at the borehole locations may not be representative for the site and should not be relied on to calculate the amount of topsoil at the site. Shallow hand-dug test-pits should be carried out to measure the topsoil thickness at site.
- ◆ Fill material consisting of sandy silt to silty sand, sand and gravel and clayey silt was found in boreholes, extending to depths varying from 0.8 to 3.0m below the ground surface. The fill was present in a very loose to compact state, and included topsoil/organics were in varying proportions. The fill was also found to lack any visual indications of deleterious materials. Below the fill, cohesionless deposits (silt, silty sand to sandy silt, and gravelly sand to sand and gravel) were encountered in all boreholes except MW20-5 to BH20-7 and MW20-11, extending to depths ranging from 2.3 mbgs to 6.0 mbgs. A lower layer of sand and gravel was found in borehole MW20-8 below the sandy silt till deposits, extending to the termination depths of borehole. Cohesive deposits of silty clay and clayey silt till were encountered in all boreholes below the upper cohesionless deposits, extending to maximum drilled depth of BH20-2 and underlain by sandy silt till deposits in other boreholes. Sandy silt till deposits were encountered below the cohesive deposits in Boreholes MW20-5 through BH20-14, extending to depths ranging from 6.0 mbgs to 8.2 mbgs. Boreholes MW20-5 to BH20-7, BH20-10 and BH20-11 were terminated in sandy silt till deposit. Bedrock was identified in a previous geotechnical assessment at depths ranging between 6.1 to 12.2 mbgs, with associated elevations of 124.9 to 117.6 masl.
- ◆ The depth to groundwater was measured in eight (8) monitoring wells installed during the course of this investigation. The groundwater levels were found to range between 1.24 to 3.07 mbgs, with corresponding elevations of 127.03 to 129.17 metres above sea level (masl). Monitoring wells BH20-8, BH20-11 and MW22-2 (a replacement well installed in the vicinity of BH20-11) remained dry throughout the course of the investigation. Based on the groundwater elevations calculated, the shallow groundwater flow direction on the Site is interpreted to be northeast towards Fourteen Mile Creek, and west towards Bronte Creek. 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.

- ◆ All of the soil samples analysed met the Table 2 SCS for the applicable contaminants of concern identified.
- ◆ The results of the chemical analyses conducted indicated that all of the groundwater samples analyzed met the applicable Site Condition Standards. Monitoring wells MW20-8 and MW20-11 could not be sampled as both monitoring wells were dry at the time of this assessment.
- ◆ MW22-1 was installed adjacent to MW20-8 and yielded sufficient groundwater for sampling purposes. MW22-1 was found to meet the applicable SCS.
- ◆ MW22-2 was installed adjacent to MW20-11 and remained dry at the time of this assessment.

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

- ◆ The results of the chemical analyses conducted on all soil samples indicate that the applicable Site Condition Standards have been met.
- ◆ The results of the chemical analyses conducted indicated that all of the groundwater samples analyzed met the applicable Site Condition Standards.
- ◆ The groundwater quality within APEC-3 could not be assessed as the monitoring wells MW20-11 and MW22-2 remained dry. Given the depth to groundwater in this location (greater than 4.6m) and the absence of soil impact in MW20-11, it is the opinion of DS that no further investigation within APEC-3 is required.
- ◆ Based on these findings it is concluded that no further environmental site assessment is required at this time. A Record of Site Condition may be submitted based on the findings of this report.
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

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1.0 Introduction

DS Consultants Ltd. (DS) was retained by Bronte River LP to complete a Phase Two Environmental Site Assessment (ESA) of the Site comprised of a portion of the properties associated with the municipal addresses of 1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario,, identified as “Area 1” and herein collectively referred to as the “Phase Two Property” or “Site”. It is DS’ understanding that this Phase Two ESA has been requested for due diligence purposes associated with the proposed redevelopment of the Property for residential purposes. It is further understood that the proposed redevelopment will consist of residential townhouses and detached homes.

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

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

1.1 Site Description

The Phase Two Property is a 3.76 hectare parcel of land comprised of five (5) separate residential properties with the municipal addresses of: 1300, 1316, 1326, 1342 and 1350 Bronte Road. The Site is situated within mixed residential, commercial and parkland neighborhood in the Town of Oakville, Ontario. The Phase Two Property is located approximately 700 metres south of the intersection of Bronte Road and Upper Middle Road West. A Site Location Plan is provided in Figure 1. The Site included the following features at the time of this assessment:

- ◆ The portion of 1300 Bronte Road associated with the Site contained a large two-story residential dwelling located in the southwestern portion of the Site. The residential dwelling was approximately 270 m² in area, and contained one (1) aboveground fuel oil storage tank (AST) within the north-western corner of the basement. One recreational pond (Pond 1) was located within the central portion of the property.

One (1) vehicle parking garage was located within the central portion of the property (Shed 1);

- ◆ The portion of 1316 Bronte Road associated with the Site contained a single-story residential dwelling approximately 80 m² in area, containing a heating fuel oil AST located immediately north of the house;
- ◆ 1326 Bronte Road consisted of a rectangular shaped parcel of land including a two-story residential dwelling approximately 170 m². 1326 Bronte Road also contained a barn (Shed 3) used as a general storage space. The residential dwelling had a heating fuel oil AST within the northwestern corner of the basement.
- ◆ The portion of 1342 Bronte Road associated with the Site included a two-story residential dwelling approximately 140 m² in area with a separate barn (Shed 4) used as a general storage space. The residential dwelling had a heating fuel oil AST within the northwestern corner of the basement.
- ◆ 1350 Bronte Road was located within the northeastern portion of the Site. The rectangular shaped parcel of land was developed with a single-story residential dwelling approximately 260 m² in area, with an attached single car garage, a work/storage shed and a greenhouse. One (1) heating fuel oil AST within the basement was reportedly utilized for the residential dwelling up until approximately 2005 when it was removed and a gas fired furnace installed.

For the purposes of this report, Upper Middle Road West is assumed to be aligned in an east-west orientation, and Bronte Road in a north-south orientation. A Plan of Survey was not provided at the time of this investigation. A Plan of Survey will be required prior to the submission of a Record of Site Condition (if applicable). A Site Location Plan is provided in Figure 2.

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

Table 1-1: Phase One Property Information

Criteria	Information	Source
Legal Description	<u>1300 Bronte Rd</u> PT LT 31, CON 2 TRAFALGAR SOUTH OF DUNDAS STREET, AS IN 609762; OAKVILLE <u>1316 Bronte Rd</u> PT LT 31, CON 2 TRAFALGAR, SOUTH OF DUNDAS STREET, AS IN 159261; OAKVILLE/TRAFALGAR <u>1326 Bronte Rd</u>	Chain of Title

Criteria	Information	Source
	PT LT 31, CON 2 TRAFALGAR, SOUTH OF DUNDAS STREET, AS IN 488493; OAKVILLE/TRAFALGAR <u>1342 Bronte Rd</u> PT LT 31, CON 2 TRAFALGAR, SOUTH OF DUNDAS STREET, PART 2, 20R2730; OAKVILLE/TRAFALGAR <u>1350 Bronte Rd</u> PT LT 31, CON 2 TRAFALGAR, SOUTH OF DUNDAS STREET, PART 1, 20R2730; OAKVILLE/TRAFALGAR	
Property Identification Number (PIN)	<u>1300 Bronte Rd</u> 24926-0038 <u>1316 Bronte Rd</u> 24926-0037 <u>1326 Bronte Rd</u> 24926-0036 <u>1342 Bronte Rd</u> 24926-0035 <u>1350 Bronte Rd</u> 24926-0034	Chain of Title
Municipal Address	1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario	Chain of Title
Zoning	<u>1300 Bronte Rd</u> ED – Existing Development N- Natural Area <u>1316 Bronte Rd</u> ED – Existing Development <u>1326 Bronte Rd</u> ED – Existing Development <u>1342 Bronte Rd</u> ED – Existing Development N- Natural Area <u>1350 Bronte Rd</u> ED – Existing Development	By-law 2014-014 Town of Oakville
Site Area	3.76 hectares (9.3 acres)	Client
Centroid UTM Coordinates	Northing: 4807851.00 m N Easting: 600955.00 m E Zone: 17T	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
Bronte River LP	4900 Palladium Way, Suite 105, Burlington, Ontario	Bronte River LP Represented by: Julian Pompeo julian@argoland.com

1.3 Current and Proposed Future Use

The Phase Two Property is currently occupied by residential houses which is considered to be residential property use under O.Reg. 153/04 (as amended). It is DS' understanding that the Client intends to redevelop the Site with a residential subdivision.

1.4 Applicable Site Condition Standards

The applicable Site Condition Standards (SCS) for the Phase Two Property are considered by the Qualified Person (QP) to be the MECP Table 2 SCS, as follows:

- ◆ Table 2 SCS: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with coarse-textured soils as contained in the April 15, 2011 Ontario Ministry of Environment, Conservation and Parks (MECP) document entitled "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", herein referred to as the "Table 2 SCS".

The MECP Table 2 RPI Standards with coarse textures soils were considered most applicable for the Site based on the following rationale:

- ◆ The proposed future use of the Phase Two Property will be residential;
- ◆ Permission for the use of non-potable groundwater standards was not obtained from the municipality;
- ◆ No areas of natural significance were identified within the limits of the Phase Two Property, nor within 30m of the Phase Two Property;
- ◆ No water bodies are located on-Site, nor are any located within 30m of the Site.
- ◆ The pH of the soils analyzed during this Phase Two ESA are within the accepted range specified under O.Reg. 153/04 (as amended); and
- ◆ Bedrock was not encountered within 2 metres of the ground surface.

Note that the recreational pond on-Site is a man-made feature and therefore not classified as a water body, as defined under O.Reg. 153/04 (as amended).

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 Bronte Creek, located approximately 60 metres to the west. 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 Areas of Natural Significance 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.

An “area of natural significance” is defined under O.Reg. 153/04 (as amended) as any of the following:

1. An area reserved or set apart as a provincial park or conservation reserve under the Provincial Parks and Conservation Reserves Act, 2006.
2. An area of natural and scientific interest (life science or earth science) identified by the Ministry of Natural Resources as having provincial significance.
3. A wetland identified by the Ministry of Natural Resources as having provincial significance.
4. An area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant.
5. An area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the Niagara Escarpment Planning and Development Act.
6. An area identified by the Ministry of Natural Resources as significant habitat of threatened or endangered species
7. An area which is habitat of species that is classified under section 7 of the Endangered Species Act, 2007 as a threatened or endangered species
8. Property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act, 2001 applies
9. An area set apart as a wilderness area under the Wilderness Areas Act.

A review of the databases and the Oakville Official Plan indicated that an Area of Natural and Scientific Interest (ANSI) designated as the *Bronte Creek Provincial Park Natural Reserve Zone* is located more than 30 m south and west of the Site.

The Ontario Greenbelt, including a Natural Heritage System (Greenbelt Reference Square 99) which is protected as per O. Reg 59/05 was located more than 30 m south of the Site.

A review of the above-listed databases also indicated that Redside Dace, Northern Bobwhite, Eastern Flowering Dogwood and the American Eel as endangered, and the Spiny Softshell, Lake Sturgeon, and the White Wood Aster as threatened species within 1 km of the Site.

According to the MNRF, the Redside Dace, is an aquatic species found in pools and slow-moving areas of small streams. The Northern Bobwhite is a small bird that lives in grasslands, around abandoned farm fields and along brushy fencerows. The Eastern Flowering Dogwood is a small tree that reaches 3-10m in height, it grows under taller trees in mixed forests, it mostly grows in floodplains sometimes fencerows. The American Eel is an endangered species under Endangered Species Act that can be found in fresh water within the Great Lakes and Niagara Falls. The nearest body of water, Bronte Creek and the woodland associated with Bronte Creek Provincial Park is located more than 30 m distant from the Phase One Property, and the Phase One Property consists of landscaped lawn, therefore it is not anticipated that habitat for these species is present on the Phase One Property.

If required, an environmental specialist could be retained to undertake a site-specific ecological assessment, however at this time further assessment is not within the scope of this report.

2.1.2 Topography and Surface Water Draining Features

The topography of the Phase One Property is generally flat, with a surface elevation of 130 masl. The topography within the Phase One Study Area generally slopes to the southwest, towards Bronte Creek, which is the nearest body of water, located approximately 60 metres to the west of the Phase One Property. Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase One Property is approximately 8-12 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be southwesterly towards Bronte Creek.

The Site is situated within a South Slope physiographic region. The surficial geology within the Phase One Study area is described as Halton Till, predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor, and the bedrock is described as shale, limestone, dolostone, siltstone of the Queenston Formation. Based on a the Terraprobe 2016

Geotechnical Slope Stability and Streambank Erosion Analysis, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 6.1 to 12.2 mbgs.

2.2 Past Investigations

2.2.1 Previous Report Summary

DS completed a Phase One ESA in March 2023, the pertinent findings of which are summarized in section 3.3 below. Additionally, the following environmental reports were provided for DS to review:

- ◆ *Geotechnical Slope Stability and Streambank Erosion Analysis, 1300 Bronte Road, Oakville, Ontario*, prepared for Mr. Victor Enns & Ms. Joyce Enns, prepared by Terraprobe Inc., dated May 19, 2016 (Terraprobe 2016 Geotechnical Slope Stability and Streambank Erosion Analysis);
- ◆ *“Phase One Environmental Site Assessment, 1300 – 1342 Bronte Road, Oakville, Ontario”*, prepared for Mr. Victor Enns, prepared by Soil-Mat Engineers & Consultants Ltd., dated December 11, 2018 (Soil-Mat 2018 Phase One ESA), and;
- ◆ *“Environmental Soil testing, 1300 – 1342 Bronte Road, Oakville, Ontario”*, prepared for Mr. Victor Enns, prepared by Soil-Mat Engineers & Consultants Ltd., dated July 21, 2020 (Soil-Mat 2020 Environmental Soil Testing).

These reports were reviewed in order to assess for the presence of known or suspected PCAs and APECs, and to determine if there are known soil and/or groundwater impacts on the Phase One Property or on Properties within the Phase One Study Area.

It should be noted that the reports were completed for the entirety of 1300, 1316, 1326 and 1342 Bronte Road, which includes lands which are excluded from this report (i.e. Area 2). The findings pertaining to Area 2 are enclosed under a separate report.

Based on the information reviewed by DS, the location of the Phase One Property, and the proposed future land use (residential), the most applicable Site Condition Standards as defined by the Ministry of the Environment, Conservation, and Parks (MECP) in the document *“Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”*, dated April 15, 2011 are considered to be:

- ◆ Table 2 SCS: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with coarse-textured soils.

The analytical data provided in the previous reports were compared to the Table 2 SCS (as applicable) in order to assess whether there are known areas of impacted soil and/or groundwater on the Phase One Property. A summary of the pertinent details of the reports reviewed is provided below, as is a detailed summary of the Soil-Mat (2020) Environmental Soil Testing Report:

Terraprobe 2016 Geotechnical Slope Stability and Streambank Erosion Analysis

The Geotechnical Slope Stability and Streambank Erosion Analysis completed by Terraprobe consisted of advancing three (3) borehole within the valley slope situated within the far south western portion of 1300 Bronte Road – adjacent to the border with the Provincial Park which sloped steeply for approximately 30-40 metres before meeting the Bronte Creek riverbed within the Park. The report provided geotechnical engineering recommendations for the long-term stability of the Site slope.

The following pertinent information was noted by DS:

- ◆ Disturbed/weathered soil material was encountered in all three (3) boreholes beneath the surficial topsoil layer, it extended to depths ranging from 0.8 to 2.3 metres below ground surface (mbgs). The disturbed soil material predominantly consisted of sandy silt with trace gravel and trace amounts of clay as well as trace organics;
- ◆ Bedrock was encounter in all three (3) boreholes at depths ranging from 6.1 to 12.2 mbgs; and
- ◆ Two (2) piezometers were installed upon the advancement of the boreholes. The groundwater level on February 24, 2016 was between 9.8 and 11.8 mbgs.

Soil-Mat 2018 Phase One ESA

The Soil-Mat Report included a review of readily available historical records and reasonably ascertainable regulatory information, a Site Reconnaissance, interviews, evaluation of information, and reporting. The following pertinent information was noted by DS:

- ◆ The four (4) properties that comprised the Phase One Property are owned by Victor Peter Enns, 144839 Ontario Limited and Joyce Enns;
 - ◆ A chain of title was performed to the four properties comprising the Phase One Property. A summary is provided in Section 3.1.4 above.
 - ◆ The Property was first developed use was established to be for residential purposes between 1909 and 1938;
 - ◆ During the Site reconnaissance the following was observed:
-

- One (1) heating fuel AST was observed in the basement of 1300 Bronte Road (**PCA-1**);
- One (1) heating fuel AST was observed in the basement of 1326 Bronte Road (**PCA-2**);
- One (1) heating fuel AST was observed in the basement of 1342 Bronte Road (**PCA-3**);
- One (1) heating fuel AST was observed on the exterior ground adjacent to the eastern wall of the dwellings at 1316 Bronte Road (**PCA-4**);
- ◆ A berm was observed adjacent of the man-made pond, from the interview with Mr. Enns it was suggested that the material in the berm is comprised of excess material generated during the road widening of Bronte Road near the Site, no chemical analysis was performed to the soil previous to the importation of the material to the Phase One Property (**PCA-6**); and
- ◆ An orchard used to operate on the majority of the Site, remnants of it was observed at the southeast corner of the Site (**PCA-7**); and
- ◆ From an interview with Mr. Enns, it was mentioned that the fill surrounding the dwelling at 1300 Bronte Road was comprised of excess material generated during a man-made pond. DS considers that the fill material moved to the dwelling may be impacted with the pesticides applied on the Property when operating as an orchard (**PCA-8**).

Soil-Mat provided the following recommendations and conclusions:

- Importation of fill material within the footprint of the demolished building previously located to the south end of the Property was identified as a PCA. It was recommended the advancement of two (2) hand auger boreholes within the footprint of a demolished building located at 1300 Bronte Road. It is noted that the reportedly demolished building was found to be still intact (Shed 2) at the time of the Phase One Site Reconnaissance completed by DS;
- The majority of the Site was formerly utilized as an orchard. Ten (10) to twelve (12) hand augured boreholes across the Site were recommended to investigate the topsoil and native material of the Site for OCPs lead and arsenic;
- A berm was observed adjacent of the man-made pond, and the material is comprised of material generated during the road widening of Bronte Road near the Site. Four (4) to five (5) hand augured boreholes within the on-Site berm was recommended to investigate the fill material brought to the berm; and

- Four (4) heating fuel ASTs were observed on the Property. Due to visual evidence, the ASTs were not considered to contribute to an APEC.

Soil-Mat 2020 Environmental Soil Testing

The Soil-Mat Environmental Soil testing investigation was completed to investigate the aforementioned PCAs identified in the Soil-Mat 2018 Phase One ESA. The investigation involved the advancement of twenty (20) hand augered boreholes advanced to a maximum depth of 0.9 mbgs. The majority of the samples were collected from the existing surficial topsoil and surficial soil. Four (4) samples were collected within the berm just east of the on-Site pond to a maximum depth of 0.3 mbgs.

Select soil samples were submitted for analysis of metals and inorganics, OCPs, arsenic and lead. Three (3) of the sample locations (S2, S7&S8 and S9) tested by Soil-Mat (2020) were within the Phase Two Property, while other sample locations were located off-site, within Area 2. All of the locations tested by Soil-Mat (2020) were within the portions of the Site which are greater than 30m from the Bronte Creek Provincial Park, and as such the MECP Table 2 SCS were considered applicable.

The results of the chemical analyses indicated the following exceedances of the Table 2 SCS:

Table 2-1: Summary of Impacts Previously Identified in Soil

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
S3 (Off-Site)	0.0-0.1	DDE	µg/g	0.33	0.85
		Arsenic	µg/g	18	33
		Lead	µg/g	150	156
S4 (Off-Site)	0.0-0.1	DDE	µg/g	0.33	0.84
		Arsenic	µg/g	18	31
		Lead	µg/g	150	163
S5 (Off-Site)	0.2-0.3	DDE	µg/g	0.33	1.0
		DDD	µg/g	0.33	0.052
		Arsenic	µg/g	18	38
		Lead	µg/g	150	189

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 2 SCS	Reported Value
S6 (Off-Site)	0.0-0.1	DDE	µg/g	0.33	0.44
		Arsenic	µg/g	18	31
		Lead	µg/g	150	149

Notes:

0.0 – Exceeds Table 2 SCS

Soil-Mat concluded that residual Organochlorine Pesticide (OCP) components are present on the southeast portion of the Site (**PCA-9**), thus additional sampling is warranted to further delineate the horizontal extent of the adverse impacts with OCPs in the topsoil and near surface soil.

Previous Report Summary

Based on a review of the previous environmental investigations completed for the Site, the following potentially contaminating activities were noted:

- ◆ #28 - Gasoline and Associated Products Storage in Fixed Tanks – Fuel oil tanks ASTs are present in each dwelling comprising the Site:
 - **PCA-1:** One (1) heating fuel AST was observed in the basement of 1300 Bronte Road;
 - **PCA-2:** One (1) heating fuel AST was observed in the basement of 1326 Bronte Road;
 - **PCA-3:** One (1) heating fuel AST was observed in the basement of 1342 Bronte Road;
 - **PCA-4:** One (1) heating fuel AST was observed on the exterior ground adjacent to the eastern wall of the dwellings at 1316 Bronte Road.
- ◆ **PCA-6: #30 - Importation of Fill Material of Unknown Quality** – The berm built east of the man-made pond at 1300 Bronte Road was comprised of fill material brought from soil generated from the road widening of Bronte Road.
- ◆ #40 - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications:
 - **PCA-7:** An orchard used to operate on the majority of the Site;
 - **PCA-8:** The grading material used to surround the dwelling at 1300 Bronte Road was comprised of excess material generated during the excavation of the man-

made pond at the same Property, the fill may be contaminated with pesticides from the former orchard operation.

◆ #N/S – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications - Soil samples more than 30 m outside of an Area of Natural Significance were identified on the southeast portion of the Site in the Soil-Mat 2020 Environmental Soil Testing investigation. The results of the analyses were found to exceed the applicable Table 2 SCS as follows:

- **PCA-9a:** Sample S3;
- **PCA-9b:** Sample S4 and S5;
- **PCA-9C:** Sample S6.

Due to the limited mobility of the contaminants of concern, and distance from the Site, the OCP impacted soil associated with southeast adjacent property is not considered likely to have migrated onto the Phase Two Property.

2.2.2 Use of Previous Analytical Results

The soil data obtained from Soil-Mat (2020) is considered to be of adequate quality, and therefore has been used to assess the soil conditions at the Phase Two Property for reference purposes. The samples documented in the Soil-Mat (2020) report were collected within the last year, and as such are considered to be representative of the current conditions for the purposes of this report.

However, the sampling methodology was not in accordance with O. Reg 153/04 whereby individual metal parameters (namely lead and arsenic) were tested for, as opposed to the full metals and metal hydride groups. In addition, the quality assurance/quality control (QA/QC) procedures were not in accordance with O.Reg. 153/04 (as amended) as no duplicate samples were analysed. On this basis, the information contained within the Soil-Mat (2020) report was considered as a reference resource for the purposes of delineating soil impacts at the Site but were not relied upon. A summary of the previous laboratory data has been appended to this report.

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 eleven (11) boreholes on the Phase Two Property, to depths ranging between 5.3 to 8.9 mbgs. Five (5) of the boreholes were instrumented with groundwater monitoring wells upon completion, between August 12, 2020 to October 7, 2021. 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 RKI Eagle 2 MultiGas Detector and examined for visual and olfactory indications of soil impacts;
- ◆ Submitted “worst case” soil samples collected from the boreholes for laboratory analysis of relevant contaminants of potential concern (COPCs) as identified in the Phase One ESA;
- ◆ Conducted groundwater level measurements in the monitoring wells in order to determine the groundwater elevation, and to establish the local groundwater flow direction;
- ◆ Supplementary soil sampling was conducted on August 20, 2020 using a hand auger to assess APEC 6, APEC 7A and APEC 7B. A total of seventeen (17) hand-augered boreholes were advanced to a maximum depth of 0.5 mbgs. Thirteen (13) of the hand augered boreholes were distributed across the entire property and advanced to a depth of 0.5 mbgs to investigate potential pesticide impacts. Four (4) hand augered boreholes (SB1 to SB4) were completed at top of the soil berm to the north of Pond 1 advanced to a depth of 0.1 mbgs in order to identify potential impacts from fill material associated with Bronte Road.
- ◆ Additional two (2) monitoring wells (MW22-1 and MW22-2) were installed at each location, within the vicinity of MW20-8 and MW20-11, as MW20-8 remained dry and MW20-11 was not observed in the spring of 2023. All two (2) monitoring wells were installed at 4.6 mbgs.

- ◆ 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.
Groundwater	Included	Groundwater was identified as a media of potential impact in the Phase One ESA, based on the historic operations conducted on-Site.
Sediment	Excluded	Sediment was not identified as a media of potential concern.
Surface Water	Excluded	Surface water was not identified as a media of potential impact in the Phase One ESA, based on the historical operations conducted on-Site.

3.2.2 Overview of Field Investigation of Media

Table 3-2: Field Investigation of Media

Media	Methodology of Investigation
Soil	<ul style="list-style-type: none"> ◆ Nine (9) boreholes (MW20-2, BH20-5, BH20-6, BH20-7, MW20-8, BH20-9, MW20-10, MW20-11, BH20-12) were advanced on the Phase Two Property in August 2020. The boreholes were sampled for Contaminants of Potential Concern (COPCs) as follows: <ul style="list-style-type: none"> ○ MW20-2: Metals, As, Sb, Se, CN-, B-HWS, Cr (VI), Hg, pH, EC, SAR (Metals and Other Regulated Parameters (ORPs)), Petroleum Hydrocarbons (PHCs); Benzene, Toluene, Ethylbenzene and Xylene (BTEX), Volatile Organic Compounds (VOCs), Polycyclic Aromatic Hydrocarbons (PAHs) and Organochlorine Pesticides (OCPs). ○ MW20-5: Metals and ORPs, Organochlorine Pesticides (OCPs), PHCs and OCPs. ○ BH20-6: Metals and ORPs, PHCs, VOCs, OCPs ○ BH20-7: Metals and ORPs, OCPs ○ MW20-8: Metals and ORPs, PHCs, PAHs ○ BH20-9: Metals and ORPs, OCPs ○ MW20-10: Metals and ORPs, OCPs ○ MW20-11: Metals and ORPs, PAHs, OCPs, PHCs

Media	Methodology of Investigation
	<ul style="list-style-type: none"> ○ BH20-12: Metals and ORPs, OCPs, PHCs, VOCs ◆ Four (4) additional hand-augered boreholes (SB1 to SB4) were completed at top of the soil berm to the north of Pond 1 advanced to a depth of 0.1 mbgs in August 2020. The boreholes were sampled for COPCs as follows: <ul style="list-style-type: none"> ○ SB1: Metals and ORPs, PAHs, PHCs, VOCs ○ SB2: Metals and ORPs, PAHs ○ SB3: Metals and ORPs, PAHs, PHCs, VOCs ○ SB4: Metals and ORPs, PAH ◆ Thirteen (13) of the hand augered boreholes (D2, D7, D9, D11, D15, 17, D19 to D23, D29 and D30) were distributed across the entire property and advanced to a depth of 0.5 mbgs to investigate potential pesticide impacts in August 2020. The boreholes were sampled for COPCs as follows: <ul style="list-style-type: none"> ○ D2: OCPs ○ D7: OCPs ○ D9: OCPs ○ D11: OCPs ○ D11: OCPs ○ D15: OCPs ○ D17: OCPs ○ D19: OCPs ○ D20: OCPs ○ D21: OCPs ○ D23: OCPs ○ D29: OCPs ○ D30: OCPs ◆ Two (2) boreholes (MW21-1, BH20-2) were advanced on the Phase Two Property in October 2021 to a maximum depth of 8.9 mbgs, in conjunction with the geotechnical assessment. The boreholes were sampled for COPCs as follows: <ul style="list-style-type: none"> ○ MW21-1: PHCs, BTEX, PAHs
Groundwater	<p>Groundwater sampling was completed within the installed monitoring wells as follows:</p> <p><u>August 19, 2020</u></p> <p>Groundwater samples were collected from MW20-2, MW20-5, MW20-10 for analysis of all relevant COPCs as follows:</p> <ul style="list-style-type: none"> ◆ MW20-2: Metals and ORPs, PHCs, VOCs, and PAHs ◆ MW20-5: PHCs, BTEX, and PAHs ◆ MW20-10: Metals and hydride-forming metals, OC Pesticides <p><u>October 13, 2021</u></p> <p>Groundwater samples were collected from MW21-1 for analysis of all relevant COPCs as follows:</p> <ul style="list-style-type: none"> ◆ MW21-1: PHCs, BTEX, and PAHs <p><u>May 30, 2023</u></p> <p>Groundwater samples were collected from MW22-1 for analysis of all relevant COPCs as follows:</p> <ul style="list-style-type: none"> ◆ MW22-1: PHCs, BTEX, and PAHs

3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at 1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario. The

Phase One Conceptual Site Model is presented in Figures 2, 3, 4, and 5 and visually depict the following:

- ◆ Any existing buildings and structures
- ◆ Water bodies located in whole, or in part, on the Phase One Study Area
- ◆ Areas of natural significance located in whole, or in part, on the Phase One Study Area
- ◆ Water wells at the Phase One Property or within the Phase One Study Area
- ◆ Roads, including names, within the Phase One Study Area
- ◆ Uses of properties adjacent to the Phase One Property
- ◆ Areas where any PCAs have occurred, including location of any tanks and historic soil impacts
- ◆ 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
1	#28 – Gasoline and associated products storage in fixed tanks	One (1) heating fuel AST was observed in the basement of 1300 Bronte Road.	PCA is on the Phase One Property.
2	#28 – Gasoline and associated products storage in fixed tanks	One (1) heating fuel AST was observed in the basement of 1326 Bronte Road.	PCA is on the Phase One Property.
3	#28 – Gasoline and associated products storage in fixed tanks	One (1) heating fuel AST was observed in the basement of 1342 Bronte Road.	PCA is on the Phase One Property.
4	#28 – Gasoline and associated products storage in fixed tanks	One (1) heating fuel AST was observed on the exterior ground adjacent to the eastern wall of the dwellings at 1316 Bronte Road.	PCA is on the Phase One Property.
5	#28 – Gasoline and associated products storage in fixed tanks	A former fuel oil AST utilized for heating was stored in a storage shed that was an addition to the southwest corner of the residential building at 1350 Bronte Road. The fuel oil AST was reportedly removed in approximately 2005.	PCA is on the Phase One Property.
6	#30 - Importation of Fill Material of Unknown Quality	The berm built east of the man-made pond at 1300 Bronte Road was comprised of fill material of soil	PCA is on the Phase One Property.

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
		material generated from the road widening of Bronte Road.	
7	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	The Phase One Property formerly contained an orchard across its entire extent, upon which pesticide use is inferred.	PCA is on the Phase One Property.
8	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	The grading material surrounding the residential dwelling at 1300 Bronte Road is inferred to potentially contain pesticides associated with the excavation of Pond 1.	PCA is on the Phase One Property.

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, PAHs and OCPs.

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.

Underground utilities were identified at the Phase One Property, including water, electrical, and sewer services to the existing Site Building. Plans were not available to confirm the depths of these utilities; however, they are estimated to be installed at depths ranging from 2 to 3 metres below ground surface.

The depth to groundwater at the Phase One Property has been calculated at depths of between 1.20 to 4.60 metres below ground surface (mbgs), therefore the utility corridors (if present) may intersect the water table and act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

3.3.4 Geological and Hydrogeological Information

The topography of the Phase One Property is generally flat, with a surface elevation of 130 masl. The topography within the Phase One Study Area generally slopes to the southwest, towards Bronte Creek, which is the nearest body of water, located approximately 60 metres to the west of the Phase One Property. Based on a review of the MECP well records, the depth

to groundwater in the vicinity of the Phase One Property is approximately 8-12 mbgs. The shallow groundwater flow direction within the Phase One Study Area is inferred to be southwesterly towards Bronte Creek.

The Site is situated within a South Slope physiographic region. The surficial geology within the Phase One Study area is described as Halton Till, predominantly silt to silty clay matrix, high in matrix carbonate content and clast poor, and the bedrock is described as shale, limestone, dolostone, siltstone of the Queenston Formation. Based on a the Terraprobe 2016 Geotechnical Slope Stability and Streambank Erosion Analysis, the bedrock in the Phase One Study Area is anticipated to be encountered at an approximate depth range of 6.1 to 12.2 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 request or City Directory search 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:

- Two (2) additional monitoring wells (MW22-1 and MW22-2) were advanced within the vicinity of BH20-8 and BH20-11, as BH20-8 remains dry during the time of this assessment and BH20-11 was not locatable in the spring of 2023.

3.5 Impediments

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

4.0 Investigation Method

4.1 General

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

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

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

4.2 Drilling and Excavating

A site visit was conducted prior to drilling to identify the borehole locations based on the APECs identified in the Phase One ESA. The selected borehole locations are presented on Figure 4. The borehole locations were cleared of underground public and private utility services prior to commencement of drilling. A summary of the drilling activities is provided in the table below.

Table 4-1: Summary of Drilling Activities

Parameter	Details			
Drilling Contractor	Davis Drilling Ltd.	Pontil Drilling	Profile Drilling	DS Consultants (Hand Auger)
Boreholes Drilled	MW20-5, BH20-6, BH20-7, MW20-8, BH20-9, MW20-	MW20-11	MW22-1, MW22-2	D2, D7, D9, D11, D15, D17, D19 to D23, D29, D30, SB1 to SB4

Parameter	Details			
	10, BH20-12 and MW21-1, BH21-2			
Drilling Dates	August 12 to August 14, 2020 October 7, 2021	August 19, 2020	May 25, 2023	August 20, 2020
Drilling Equipment Used	Truck-mounted CME 55	Truck-mounted CME 45	Mobile Drill B-60	Hand-Auger
Measures taken to minimize the potential for cross contamination	<ul style="list-style-type: none"> ◆ 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; ◆ 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. 			The hand auger was brushed free of debris in between samples and rinsed with a combination ofalconox and distilled water.
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.		Soil samples associated with D2, D7, D9, D11, D15, D17, D19, D20 to D23, D29 and D30 were collected at intervals of 0.1, 0.3 and 0.5 mbgs. Soil samples associated with SB1 to SB4 were collected within 0.1 m of the top grade of the soil berm.	

4.3 Soil Sampling

Soil samples were collected using a 50 mm stainless steel split spoon sampler or hand-held AMS auger. Discrete soil samples were collected from the split-spoon samplers or hand auger 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 B. Additional detail regarding the lithology encountered in the boreholes is presented under Section 5.1.

4.4 Field Screening Measurements

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

The soil samples were inspected and examined to assess soil type, ground water conditions, and possible chemical contamination by visual and olfactory observations or by organic vapour screening. Samples submitted for chemical analysis were collected from locations judged by the assessor to be most likely to exhibit the highest concentrations of contaminants based on several factors including (i) visual or olfactory observations, (ii) sample location, depth, and soil type (iii) ground water conditions and headspace reading. A summary of the equipment used for field screening is provided below:

Table 4-2: Field Screening Equipment

Parameter	Details
Make and Model of Field Screening Instrument	RKI Eagle 2, Model 5101-P2 Serial Number: E2G721
Chemicals the equipment can detect and associated detection limits	VOCs with dynamic range of 0 parts per million (ppm) to 2,000 ppm PHCs with range of 0 to 50,000 ppm
Precision of the measurements	3 significant figures
Accuracy of the measurements	VOCs: $\pm 10\%$ display reading + one digit Hydrocarbons: $\pm 5\%$ display reading + one digit
Calibration reference standards	PID: Isobutylene CGD: Hexane
Procedures for checking calibration of equipment	In-field re-calibration of the CGI was conducted (using the gas standard in accordance with the operator's manual instructions) if the calibration check indicated that the calibration had drifted by more than $\pm 10\%$.

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

4.5 Groundwater Monitoring Well Installation

Monitoring wells were installed upon completion of eight (8) of the boreholes advanced on the Phase Two Property. The monitoring wells were constructed of 51-millimetre (2-inch) inner diameter (ID) flush-threaded schedule 40 polyvinyl chloride (PVC) risers, equipped with a 3.1 m length of No. 10 slot PVC screen. The well screens were sealed at the bottom using a threaded cap and at the top with a lockable J-plug.

Silica sand was placed around and up to 0.6m above the well screen to act as a filter pack. Bentonite was placed from the ground surface to the top of the sand pack. The wells were completed with protective flush mount casings. Details regarding the monitoring well construction can be found in Table 1 (enclosed), and on the borehole logs provided in Appendix B.

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 August 18, 2020, August 20, 2020, October 12, 2021 and May 29, 2023. 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 and Safety Inc.) in accordance with the manufacturer's specifications.

The measurements were conducted at regular intervals 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 groundwater samples were collected using low flow sampling methodology (<0.5L/minute) 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

Sediment was not identified as a media of potential concern by the Phase One ESA. 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) and Bureau Veritas Laboratories (BV) under chain of custody protocols. SGS and BV are independent laboratories accredited by the Canadian Association for Laboratory Accreditation. SGS and BV conducted the analyses in accordance with the MECP document

“Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” dated March 9, 2004 (revised on July 1, 2011).

4.10 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. Upon receipt of the analytical results it was determined that the purged groundwater met the applicable site condition standards. Based on this the purged groundwater was allowed to re-infiltrate adjacent to the monitoring wells.

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 ground surface elevations of the boreholes/monitoring wells were surveyed using a Sokkia GCX-2 GNSS RTK receiver, referenced to geodetic benchmark 04320111615 located west boulevard cul-de-sac at the end of Burloak Drive, across from the Bronte Creek Park maintenance entrance.

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

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.
	PHCs F2-F4 metals and ORPs PAHs OCPs	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 OCPs	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. PID, CGD, 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 B.

A surficial layer of topsoil ranging in thickness from 75mm to 150mm was found in the boreholes except MW21-1. It should be noted that the thickness of the topsoil explored at the borehole locations may not be representative for the site and should not be relied on to calculate the amount of topsoil at the site. Shallow hand-dug test-pits should be carried out to measure the topsoil thickness at site.

Fill material consisting of sandy silt to silty sand, sand and gravel and clayey silt was found in boreholes, extending to depths varying from 0.8 to 3.0m below the ground surface. The fill was present in a very loose to compact state, and included topsoil/organics were in varying proportions. The fill was also found to lack any visual indications of deleterious materials.

Below the fill, cohesionless deposits (silt, silty sand to sandy silt, and gravelly sand to sand and gravel) were encountered in all boreholes except MW20-5 to BH20-7 and MW20-11, extending to depths ranging from 2.3 mbgs to 6.0 mbgs. A lower layer of sand and gravel was found in borehole MW20-8 below the sandy silt till deposits, extending to the termination

depths of borehole. Cohesive deposits of silty clay and clayey silt till were encountered in all boreholes below the upper cohesionless deposits, extending to maximum drilled depth of BH20-2 and underlain by sandy silt till deposits in other boreholes.

Sandy silt till deposits were encountered below the cohesive deposits in Boreholes MW20-5 through BH20-14, extending to depths ranging from 6.0 mbgs to 8.2 mbgs. Boreholes MW20-5 to BH20-7, BH20-10 and BH20-11 were terminated in sandy silt till deposit. Bedrock was identified in a previous geotechnical assessment at depths ranging between 6.1 to 12.2 mbgs, with associated elevations of 124.9 to 117.6 masl.

Table 5-1: Summary of Geologic Units Investigated

Geologic Unit	Inferred Thickness (m)	Top Elevation (masl)	Bottom Elevation (masl)	Properties
Topsoil	0.1 – 0.2	131.9	128.9	Topsoil Like
Fill (Sand/Silty Sand)	0.8 – 2.9	129.9	127.6	Brown, Moist
Sandy Silt/Silty Sand	0.6 – 3.0	130.5	124.2	Brown, Moist
Silty Clay Till / Clayey Silt Till	1.5 – 4.0	128.4	122.3	Brown, Very Moist
Sandy Silt Till	~3.0	124.9	123.7	Grey, Moist/Very Moist
Sand and Gravel	>0.7	122.4	121.7	Saturated

5.2 Ground Water Elevations and Flow Direction

5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals

A total of eight (8) monitoring wells were installed on the Phase Two Property to assess the groundwater quality. The monitoring wells were screened to intersect the first water bearing formation encountered, to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater at the water table. The upper groundwater unit is inferred to be an unconfined aquifer.

5.2.2 Results of Interface Probe Measurements

A summary of the groundwater level measurements is provided in Table 1 (Enclosed). The groundwater level measurements were collected using a Solinst interface probe (model 122). The depth to groundwater was found to range between 1.20 to 4.60 mbgs on August 18, 2020, and between 1.12 to 7.56 mbgs on May 9, 2023. Monitoring wells MW20-8, MW20-

11 and MW22-2 were dry at the time of this assessment. 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 127.03 to 129.17 masl in the upper aquifer investigated.

5.2.5 Groundwater Flow Direction

The groundwater flow direction was interpreted using the groundwater elevations calculated for the monitoring wells installed on the Phase Two Property. Based on the groundwater elevations calculated, the shallow groundwater flow direction within the Phase One Study Area is inferred to be northeast towards Fourteen Mile Creek and west towards Bronte Creek.

The interpreted groundwater elevation contours and flow direction are presented on Figure 6. The groundwater elevation contours were interpreted based on the groundwater elevations recorded on June 21, 2021.

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.

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

The groundwater table was encountered at depths ranging from 1.24 to 3.07 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 August 14, 2020.

Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – (sandy silt to silty sand till)	Minimum: 0.002 Average: 0.008 Maximum: 0.02

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 nested wells were installed.

5.4 Fine-Medium Soil Texture

A total of three (3) grain size analyses were conducted as part of this investigation in conjunction with the Geotechnical Investigation. For the purpose of determining the Site Condition Standards, the more conservative coarse grain standards are applied.

5.4.1 Results of Grain Size Analysis

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

Table 5-3: Summary of Grain Size Analyses

Sample	% Gravel	% Sand	% Silt	% Clay	Classification
BH20-6 SS4	1	18	74	7	Fine/Medium
BH20-8 SS10	25	57	14	4	Coarse
BH20-10 SS4	0	12	81	7	Fine/Medium

5.4.1 Rational for the Number of Samples Collected and Analyzed

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

5.5 Soil Field Screening

Soil vapour headspace readings were collected at the time of sample collection, the results of which are presented on the borehole logs (Appendix B). The soil vapour headspace readings were collected using a PID and CGD in methane elimination mode. The PID readings ranged between 0 and 1 ppm. The CGD readings ranged between 0 and 100 ppm.

The soil samples were also screened for visual and olfactory indicators of impacts (e.g. staining, odours). No aesthetic impacts (e.g. cinders, slag, hydrocarbon odours) were encountered during this investigation. The organic vapour measurements are considered to be within the standard background range with no indication of potential contamination identified.

5.6 Soil Quality

The results of the chemical analyses conducted are presented in Tables 5 through 10 (enclosed). A visual summary of the location of the sample locations is provided in Figures 6A through 6E. The laboratory certificates of analysis have been provided under Appendix C.

5.6.1 Metals and ORPs

Seventeen (17) samples (including 3 QA/QC duplicates) were submitted for analysis of metals and hydride forming metals. Eight (8) samples were submitted for analysis of Metals and ORPs. An additional two (2) samples were submitted for analysis of pH only.

The results of the analyses are tabulated in Tables 5 (enclosed) and presented on Figure 6A. All of the samples analyzed met the MECP Table 2 RPI SCS.

5.6.2 Petroleum Hydrocarbons

A total of fifteen (15) samples, including two (2) field duplicates for QA/QC purposes were submitted for analysis of PHCs (incl. BTEX). The results of the analyses are tabulated in Tables 6 and (enclosed), and presented on Figure 6B. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.6.3 Volatile Organic Compounds

A total of eight (8) samples, including one (1) field duplicate were submitted for analysis of VOCs. The results of the analyses are tabulated in Tables 7 (enclosed), and presented on Figure 6C. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.6.4 Polycyclic Aromatic Hydrocarbons

A total of ten (10) samples, including one (1) field duplicate for QA/QC purposes were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 8 (enclosed) and presented on Figure 6D. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.6.5 OC Pesticides

A total of twenty-four (24) samples, including three (3) field duplicates for QA/QC purposes were submitted for analysis of OCPs. The results of the analyses are tabulated in Table 9 (enclosed), and presented on Figure 6E. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.6.6 Commentary on Soil Quality

No evidence of chemical or biological transformations of the parameters analyzed was observed during the field investigation. The results of the soil chemical analysis indicated that all samples analyzed met the applicable MECP Table 2 SCS.

5.7 Ground Water Quality

The results of the chemical analyses conducted are presented in Tables 10 through 14 (enclosed). A visual summary of the location of the sample locations is provided in Figures 7A through 7E. The laboratory certificates of analysis have been provided under Appendix C.

5.7.1 Metals and ORPs

A total of two (2) samples were submitted for analysis of metals and ORPs. The results of the analyses are tabulated in Table 10 (enclosed), and presented on Figure 7A. 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 chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.7.2 Petroleum Hydrocarbons

A total of four (4) samples were submitted for analysis of PHCs (incl. BTEX). The results of the analyses are tabulated in Table 11 (enclosed), and presented on Figure 7B. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.7.3 Volatile Organic Compounds

A total of two (2) samples, including a trip blank for QA/QC purposes were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 12 (enclosed), and presented on Figure 7C. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.7.4 Polycyclic Aromatic Hydrocarbons

A total of six (6) samples, including two (2) field duplicates for QA/QC purpose were submitted for analysis of PAHs. The results of the analyses are tabulated in Table 13 (enclosed), and presented on Figure 7D. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.7.1 OC Pesticides

A total of one (1) sample was submitted for analysis of OCPs. The results of the analyses are tabulated in Table 14 (enclosed), and presented on Figure 7E. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

5.7.2 Commentary on Groundwater Quality

All of the groundwater samples analysed met the MECP Table 2 Standards for the parameters of concern as identified in the Phase One ESA.

Monitoring wells MW20-8 and MW20-11 remained dry at the time of this investigation. MW22-1 was installed in the vicinity of MW20-8 in May 2023, and the depth to groundwater was found to be 1.46 mbgs on May 30, 2023. Groundwater sample collected from MW22-1 on May 30, 2023 analysed met the MECP Table 2 Standard.

MW22-2 was installed in the vicinity of MW20-11 in May 2023, and the well remained dry on all monitoring events (May 29, June 5, June 12 and June 26, 2023) at the time of this investigation. The depth to groundwater is inferred to be greater than 4.6 mbgs. Based on the absence of soil impacts in this borehole, and the depth to groundwater, further assessment of the groundwater quality within APEC-3 is not recommended.

5.8 Sediment Quality

Sediment was not identified as a media of potential concern by the Phase One ESA, and was not investigated as a result.

5.9 Quality Assurance and Quality Control Results

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

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

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

Table 5-5: Summary of QA/QC Results

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
MW20-5 SS3	SDUP1	Soil	PHCs	All results were within the analytical protocol criteria for RPD
MW20-5 SS8	SDUP2	Soil	PHCs, PAHs	All results were within the analytical protocol criteria for RPD
BH20-6 SS1	SDUP3	Soil	OCPs	All results were within the analytical protocol criteria for RPD
BH20-7 SS1	SDUP4	Soil	OCPs, Metals	All results were within the analytical protocol criteria for RPD
MW20-10 SS1	SDUP5	Soil	OCPs, Metals	All results were within the analytical protocol criteria for RPD
BH20-9 SS1	SDUP6	Soil	Metals	All results were within the analytical protocol criteria for RPD
D29 S1	SDUP11	Soil	OCPs	All results were within the analytical protocol criteria for RPD
MW21-1/SS3	DUP1	Soil	VOCs	All results were within the analytical protocol criteria for RPD
MW21-1	DUP-1	Groundwater	PAHs	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.

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 C.

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.

6.0 Conclusions

This Phase Two ESA involved that advancement of thirteen (13) boreholes, the installation of seven (7) monitoring wells on the Phase Two Property, and the collection of soil and groundwater samples for analysis of the potential contaminants of concern, including: PHCs, BTEX, Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, low or high pH, SAR, PAHs.

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

- ◆ The results of the chemical analyses conducted on all soil samples indicate that the applicable Site Condition Standards have been met.
- ◆ The results of the chemical analyses conducted indicated that all of the groundwater samples analyzed met the applicable Site Condition Standards.
- ◆ The groundwater quality within APEC-3 could not be assessed as the monitoring wells MW20-11 and MW22-2 remained dry. Given the depth to groundwater in this location (greater than 4.6m) and the absence of soil impact in MW20-11, it is the opinion of DS that no further investigation within APEC-3 is required.
- ◆ Based on these findings it is concluded that no further environmental site assessment is required at this time. A Record of Site Condition may be submitted based on the findings of this report.
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

6.1 Qualifications of the Assessors

Alice Gong, B.Sc

Ms. Alice is an Environmental Specialist with DS Consultants Ltd. Alice holds a bachelor's degree in environmental science from McMaster University and a Past Graduate Certificate in Environmental Management and Assessment from Niagara College. Alice has been involved with Phase One and Phase Two Environmental Site Assessments, data interpretation and reporting.

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 seven years of environmental consulting experience and has conducted and/or managed over 100 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 and Climate Change. 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

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

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

Yours truly,

DS Consultants Ltd

Prepared by:



Alice Gong, B.Sc
Environmental Specialist

Reviewed by:



Rick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manager – Environmental Services



6.3 Limitations

This report was prepared for the sole use of Bronte River LP and is intended to provide an assessment of the environmental condition on the property located at 1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario. The information presented in this report is based on information collected during the completion of the Phase Two Environmental Site Assessment by DS Consultants Ltd. The material in this report reflects DS' judgment in light of the information available at the time of report preparation. This report may not be relied upon by any other person or entity without the written authorization of DS Consultants Ltd. The scope of services performed in the execution of this investigation may not be appropriate to satisfy the needs of other users, and any use or reuse of this documents or findings, conclusions and recommendations represented herein, is at the sole risk of said users.

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

7.0 References


- ◆ Armstrong, D.K. and Dodge, J.E.P. *Paleozoic Geology Map of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 219.
- ◆ Chapman, L.J. and Putnam, D.F. 2007. *The Physiography of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 228.
- ◆ Freeze, R. Allen and Cherry, John A., 1979. *Ground water*. Page 29.
- ◆ Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.
- ◆ Ontario Ministry of Environment, 15 April 2011. *Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act*.
- ◆ Ontario Ministry of the Environment, June 2011. *Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04*.
- ◆ Ontario Ministry of the Environment, July 2011. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act*.
- ◆ The Ontario Geological Survey. 2003. *Surficial Geology of Southern Ontario*.
- ◆ “Phase One Environmental Site Assessment, 1300, 1316, 1326 and 1342 Bronte Road Oakville, Ontario”, dated September 24, 2020, prepared for Argo Development, prepared by DS Consultants Ltd.
- ◆ “Geotechnical Slope Stability and Streambank Erosion Analysis, 1300 Bronte Road, Oakville, Ontario”, prepared for Mr. Victor Enns & Ms. Joyce Enns, prepared by Terraprobe Inc., dated May 19, 2016
- ◆ “Phase One Environmental Site Assessment, 1300 – 1342 Bronte Road, Oakville, Ontario”, prepared for Mr. Victor Enns, prepared by Soil-Mat Engineers & Consultants Ltd., dated December 11, 2018
- ◆ “Environmental Soil testing, 1300 – 1342 Bronte Road, Oakville, Ontario”, prepared for Mr. Victor Enns, prepared by Soil-Mat Engineers & Consultants Ltd., dated July 21, 2020.



Figures



**PHASE TWO
PROPERTY**

Legend
 Property Boundary

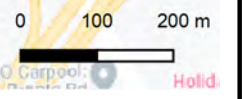
DS CONSULTANTS LTD.
 6221 Highway 7, UNIT 16
 Vaughan, Ontario L4H 0K8
 Telephone: (905) 264-9393
 www.dsconsultants.ca

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON

Title: **SITE LOCATION PLAN**



Client: ARGO DEVELOPMENT	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P.	Date: June 2023
	Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 1
	Image/Map Source: Google Street Map			

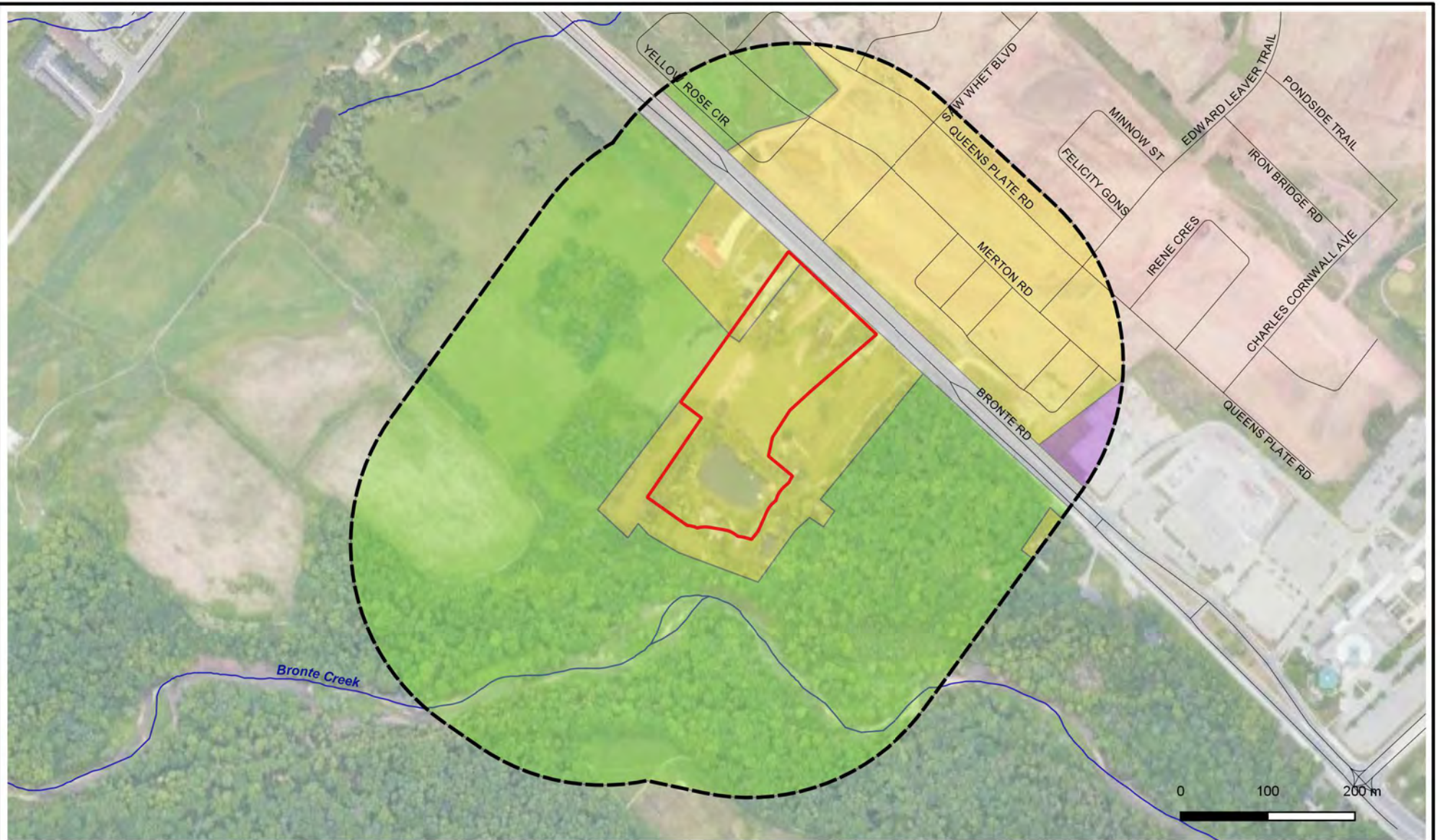




Legend



- Property Boundary
- 30m Buffer Line from Natural Reserve
- Current Orchard
- Natural Reserve
- NHS
- Approx Berm Location
- Fuel Oil AST
- Diesil AST

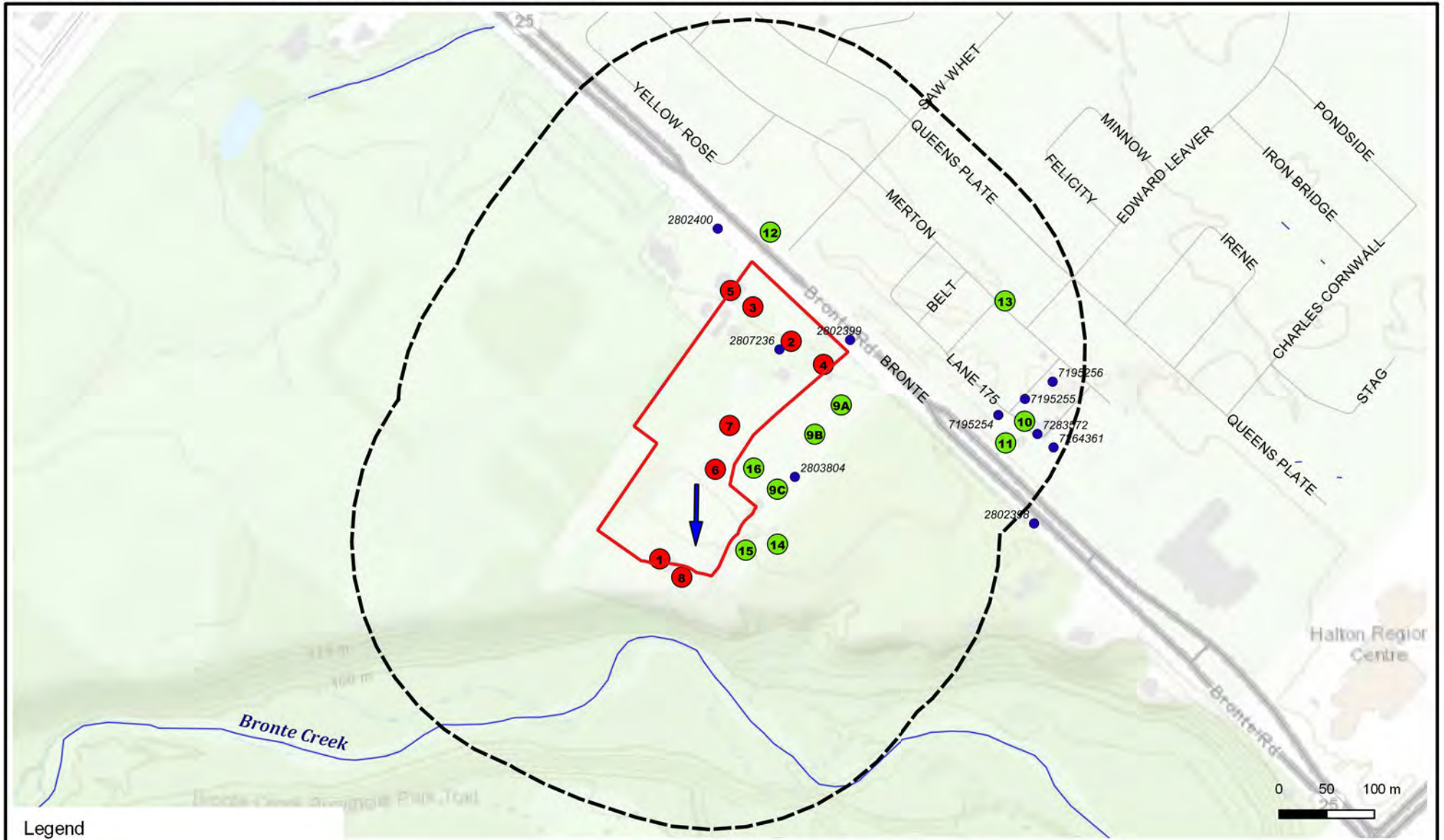
 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: PHASE ONE PROPERTY SITE PLAN			
Client: ARGO DEVELOPMENT	Size: 8.5 x 11	Approved By: R.F	Drawn By: S.Y / P.P.	Date: July 2023
	Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 2
	Image/Map Source: Google Satellite Image			



Legend

- Property Boundary
- 250m Buffer
- Institutional
- Parkland/Open Space
- Residential

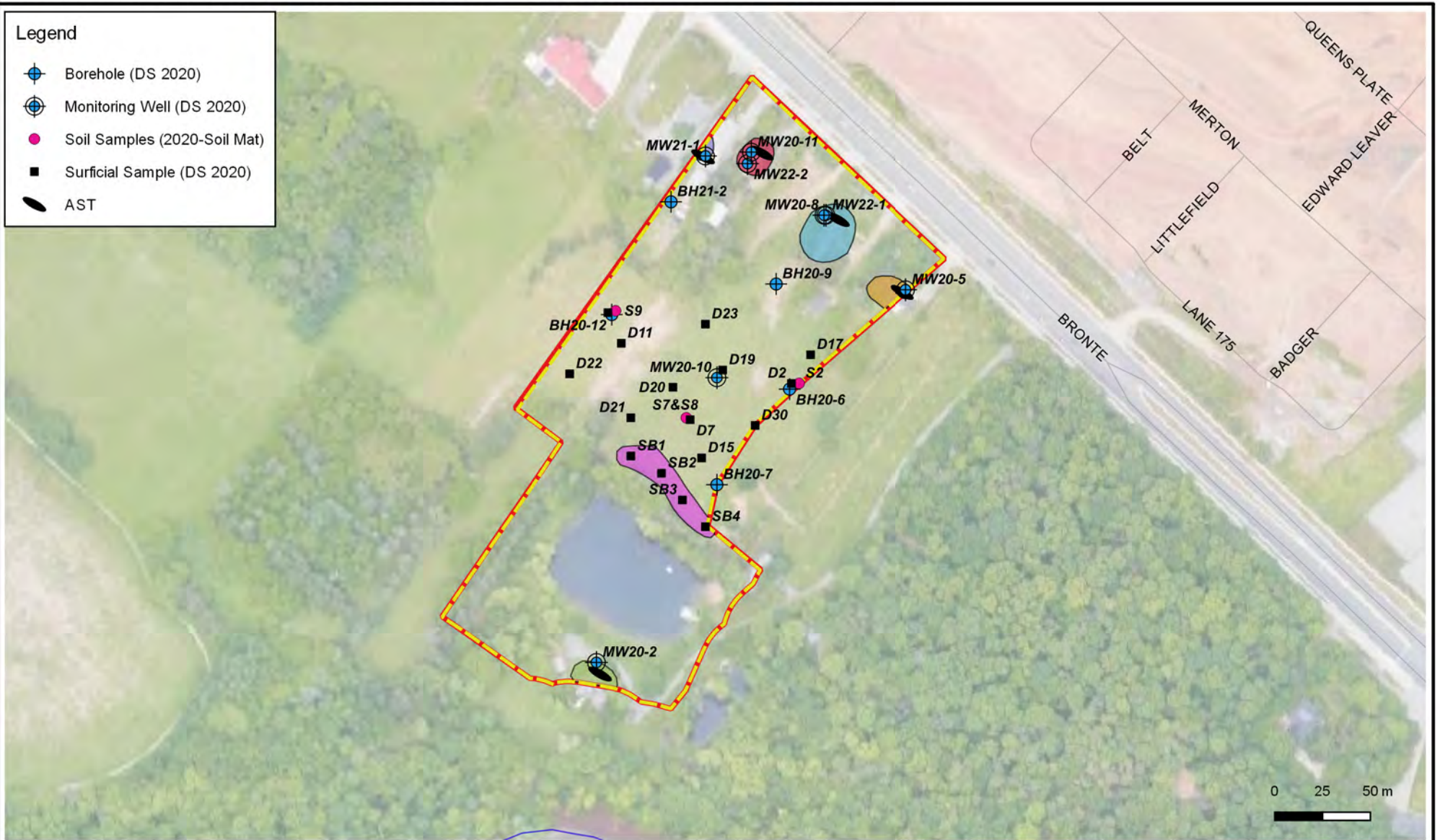
 <p>DS CONSULTANTS LTD. 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: PHASE ONE STUDY AREA			
Client: ARGO DEVELOPMENT	Size: 8.5 x 11 Rev: 0	Approved By: R.F Scale: As Shown	Drawn By: S.Y / P.P. Project No.: 20-186-100	Date: June 2023 Figure No.: 3
Image/Map Source: Google Satellite Image				



Legend

- Property Boundary
- 250m Buffer
- PCA Not Contributing to APEC
- PCA Contributing to APEC
- Registered Water Well (MECP WWR)
- ➔ 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: PCAs WITHIN PHASE ONE STUDY AREA			
Client: ARGO DEVELOPMENT	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P.	Date: June 2023
	Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 4
Image/Map Source: Esri Topo Image				



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 6221 Highway 7, UNIT 16
 Vaughan, Ontario L4H 0K8
 Telephone: (905) 264-9393
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Client: **ARGO DEVELOPMENT**

Project: **PHASE TWO ENVIRONMENTAL SITE ASSESSMENT**
 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON

Title: **BOREHOLE LOCATION PLAN WITH APECs**

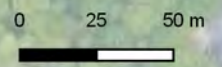
Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P.	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 5
Image/Map Source: Google Satellite Image			





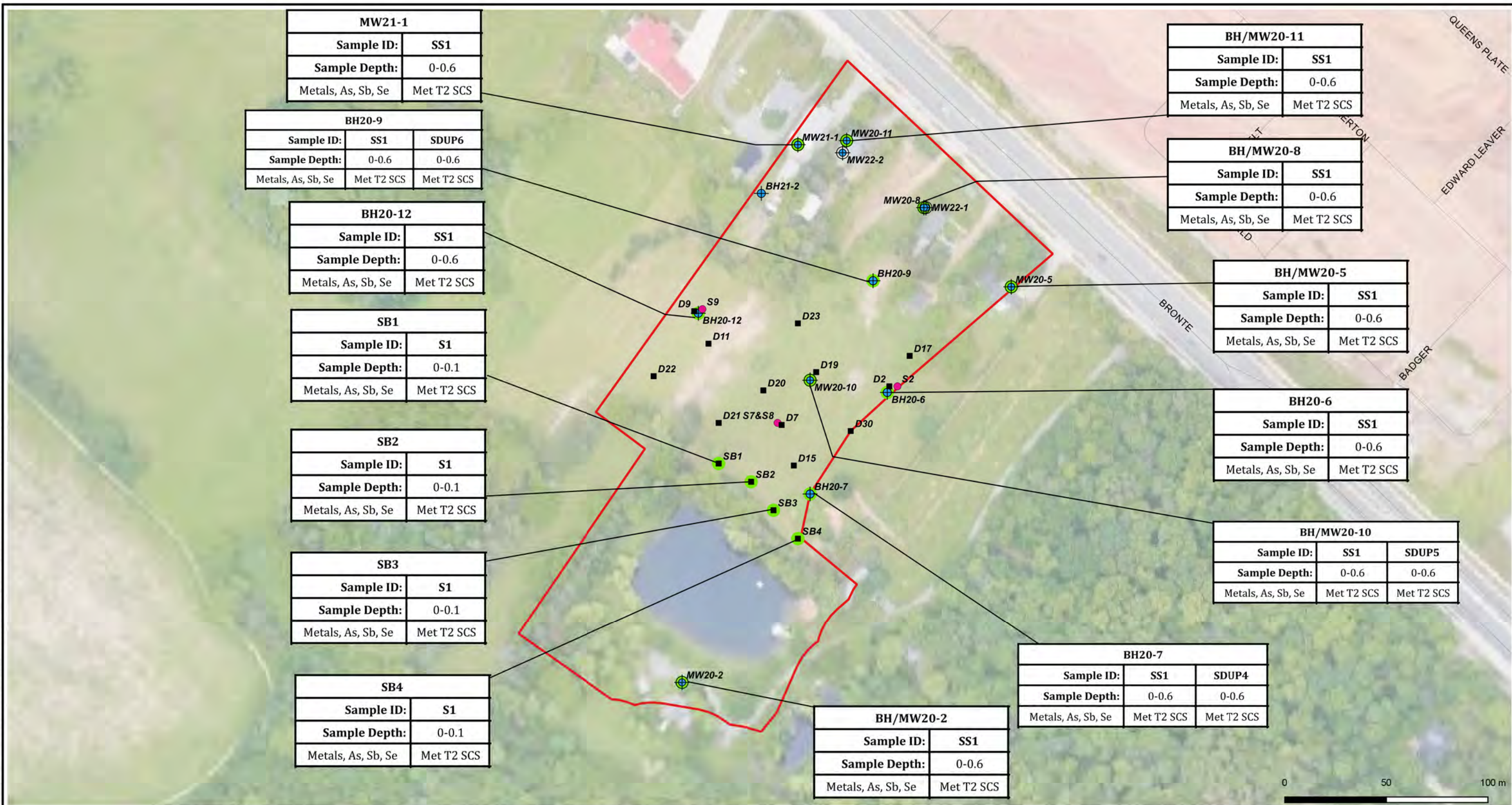
Legend

- Property Boundary
- ⊕ Borehole (DS 2020)
- ⊗ Monitoring Well (DS 2020)
- Soil Samples (2020-Soil Mat)
- Surficial Sample (DS 2020)
- 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION			
Client: ARGO DEVELOPMENT	Size: 8.5 x 11	Approved By: R.F	Drawn By: P.P.	Date: June 2023
	Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 6
	Image/Map Source: Google Satellite Image			

J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 7A - Soil Characterization - Metals.qgs Jun-30 09:59



MW21-1	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

BH/MW20-11	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

BH20-9		
Sample ID:	SS1	SDUP6
Sample Depth:	0-0.6	0-0.6
Metals, As, Sb, Se	Met T2 SCS	Met T2 SCS

BH/MW20-8	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

BH20-12	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

BH/MW20-5	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

SB1	
Sample ID:	S1
Sample Depth:	0-0.1
Metals, As, Sb, Se	Met T2 SCS

BH20-6	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS

SB2	
Sample ID:	S1
Sample Depth:	0-0.1
Metals, As, Sb, Se	Met T2 SCS

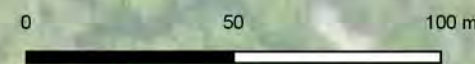
BH/MW20-10		
Sample ID:	SS1	SDUP5
Sample Depth:	0-0.6	0-0.6
Metals, As, Sb, Se	Met T2 SCS	Met T2 SCS

SB3	
Sample ID:	S1
Sample Depth:	0-0.1
Metals, As, Sb, Se	Met T2 SCS

BH20-7		
Sample ID:	SS1	SDUP4
Sample Depth:	0-0.6	0-0.6
Metals, As, Sb, Se	Met T2 SCS	Met T2 SCS

SB4	
Sample ID:	S1
Sample Depth:	0-0.1
Metals, As, Sb, Se	Met T2 SCS

BH/MW20-2	
Sample ID:	SS1
Sample Depth:	0-0.6
Metals, As, Sb, Se	Met T2 SCS



- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: SOIL CHARACTERIZATION - METALS & HYDRIDE-FORMING METALS			
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 7A	Image/Map Source: Google Satellite Image

MW21-1				
Sample ID:	SS1	SS2	SS3	SS9
Sample Depth:	0-0.6	0.8-1.4	1.5-2.1	8.5-8.9
pH	7.26	7.67	7.64	8.02
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS	Met T2 SCS	Met T2 SCS	Met T2 SCS

BH/MW20-11	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	7.28
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

BH/MW20-8	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	7.48
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

SB1	
Sample ID:	S1
Sample Depth:	0-0.1
pH	7.49
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

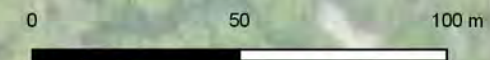
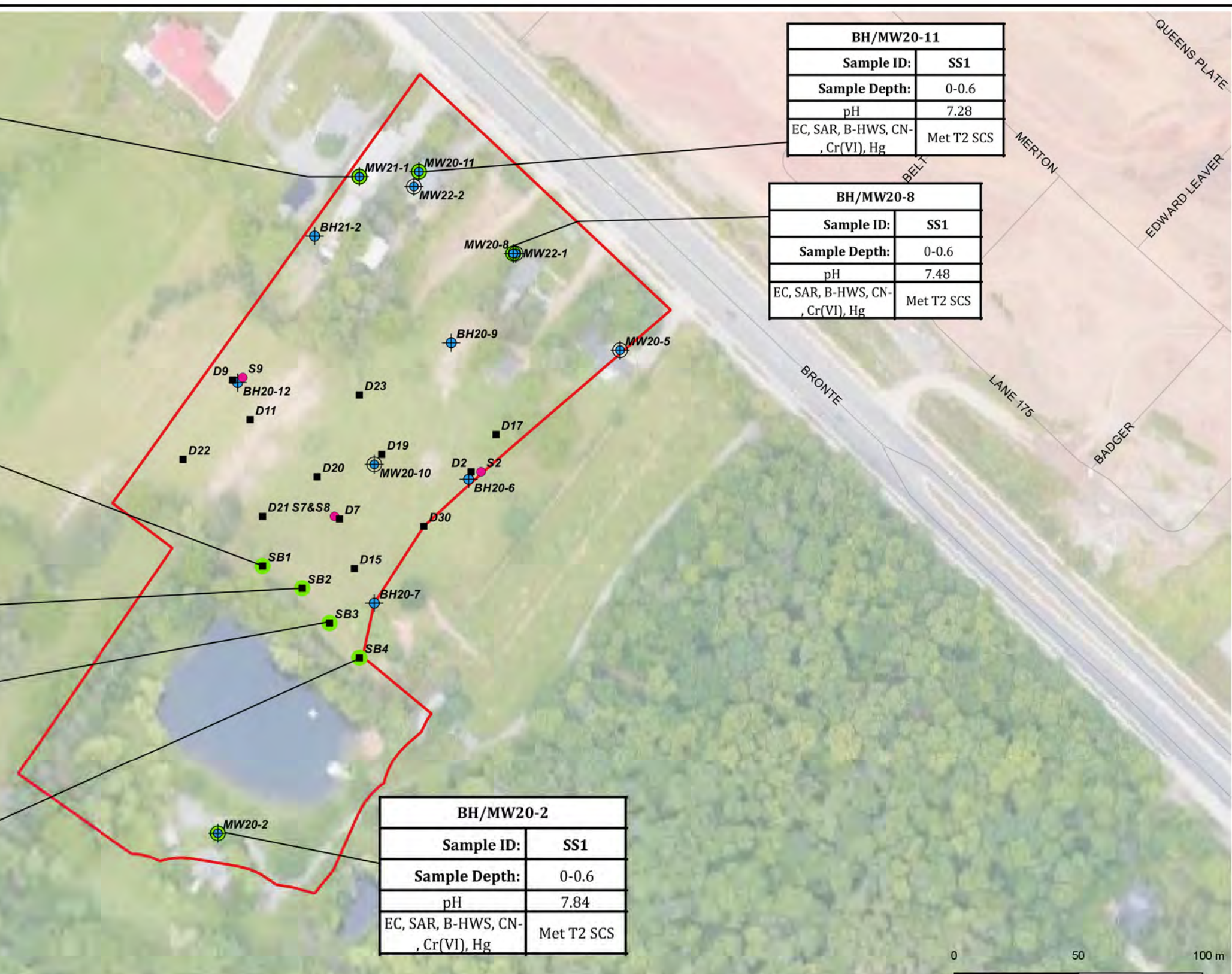
SB2	
Sample ID:	S1
Sample Depth:	0-0.1
pH	7.61
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

SB3	
Sample ID:	S1
Sample Depth:	0-0.1
pH	7.7
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

SB4	
Sample ID:	S1
Sample Depth:	0-0.1
pH	7.73
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

BH/MW20-2	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	7.84
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T2 SCS

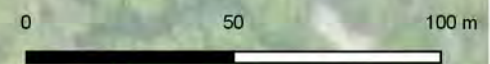
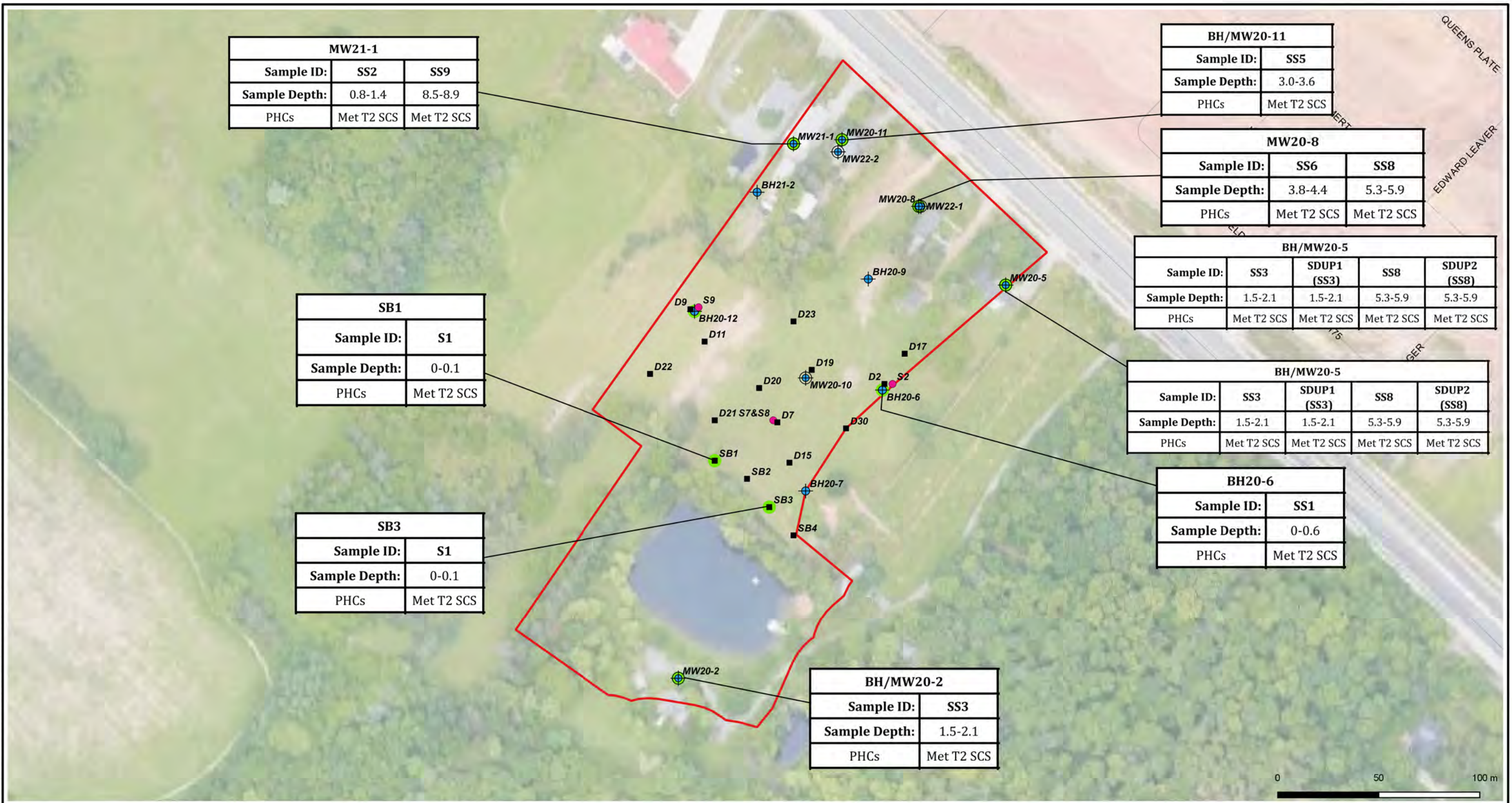
Parameter	O. Reg. 153/04 Section 41
pH (Surface Soil)	5 to 9
pH (Sub-surface Soil)	5 to 11





- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: SOIL CHARACTERIZATION - ORPs			
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 7B	Image/Map Source: Google Satellite Image

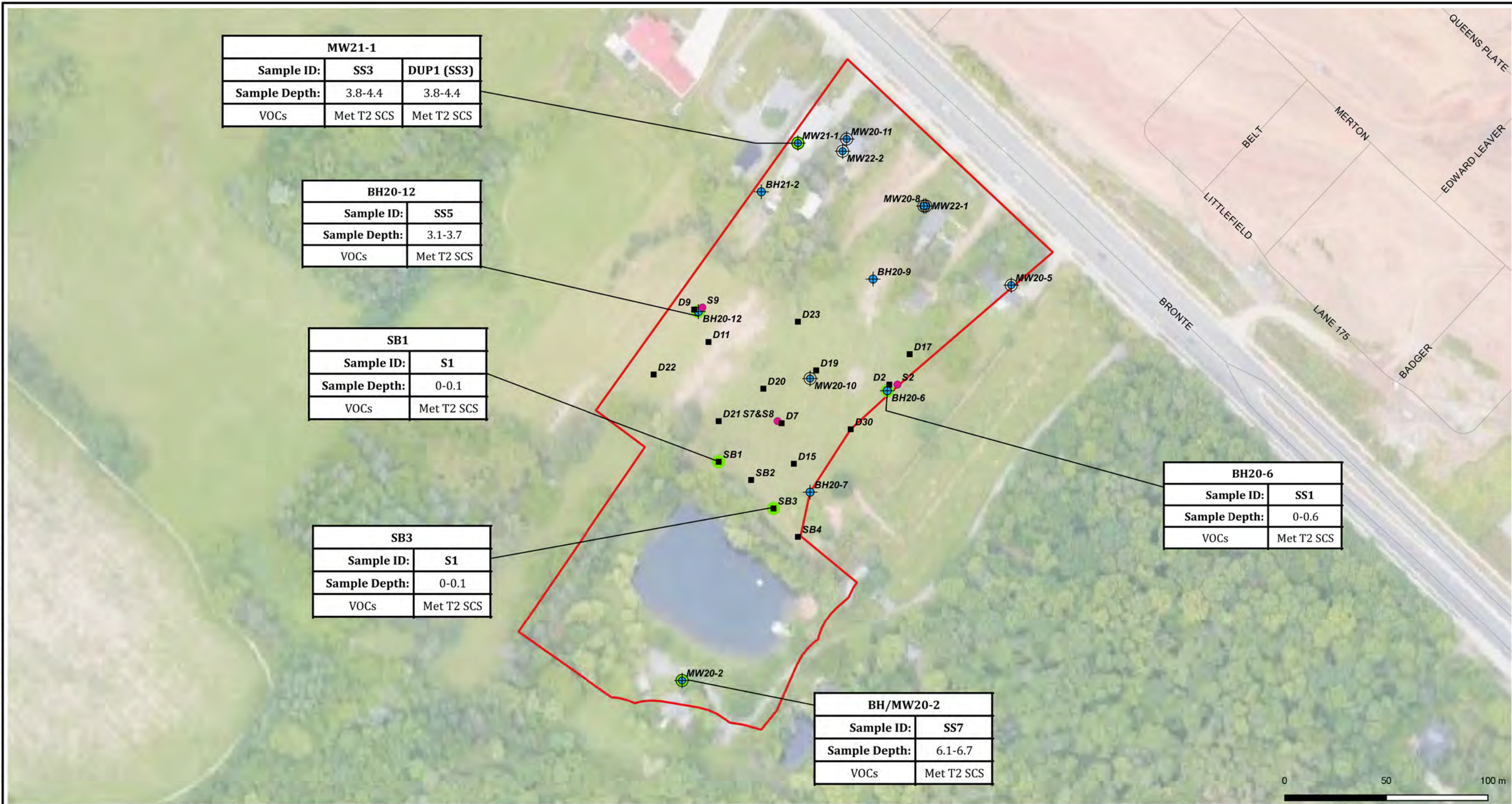
J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 7C - Soil Characterization - PHCs & BTEX.qgs Jun-30 10:01



- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON				
	Title: SOIL CHARACTERIZATION - PHCs				
Client:	ARGO DEVELOPMENT	Size:	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev:		11x17	Scale: As Shown	Project No.: 20-186-100	Figure No.: 7C
		0	Image/Map Source: Google Satellite Image		

J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 7D - Soil Characterization - VOCs.ags Jun-30 10:03



MW21-1		
Sample ID:	SS3	DUP1 (SS3)
Sample Depth:	3.8-4.4	3.8-4.4
VOCs	Met T2 SCS	Met T2 SCS

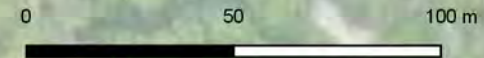
BH20-12	
Sample ID:	SS5
Sample Depth:	3.1-3.7
VOCs	Met T2 SCS

SB1	
Sample ID:	S1
Sample Depth:	0-0.1
VOCs	Met T2 SCS

SB3	
Sample ID:	S1
Sample Depth:	0-0.1
VOCs	Met T2 SCS

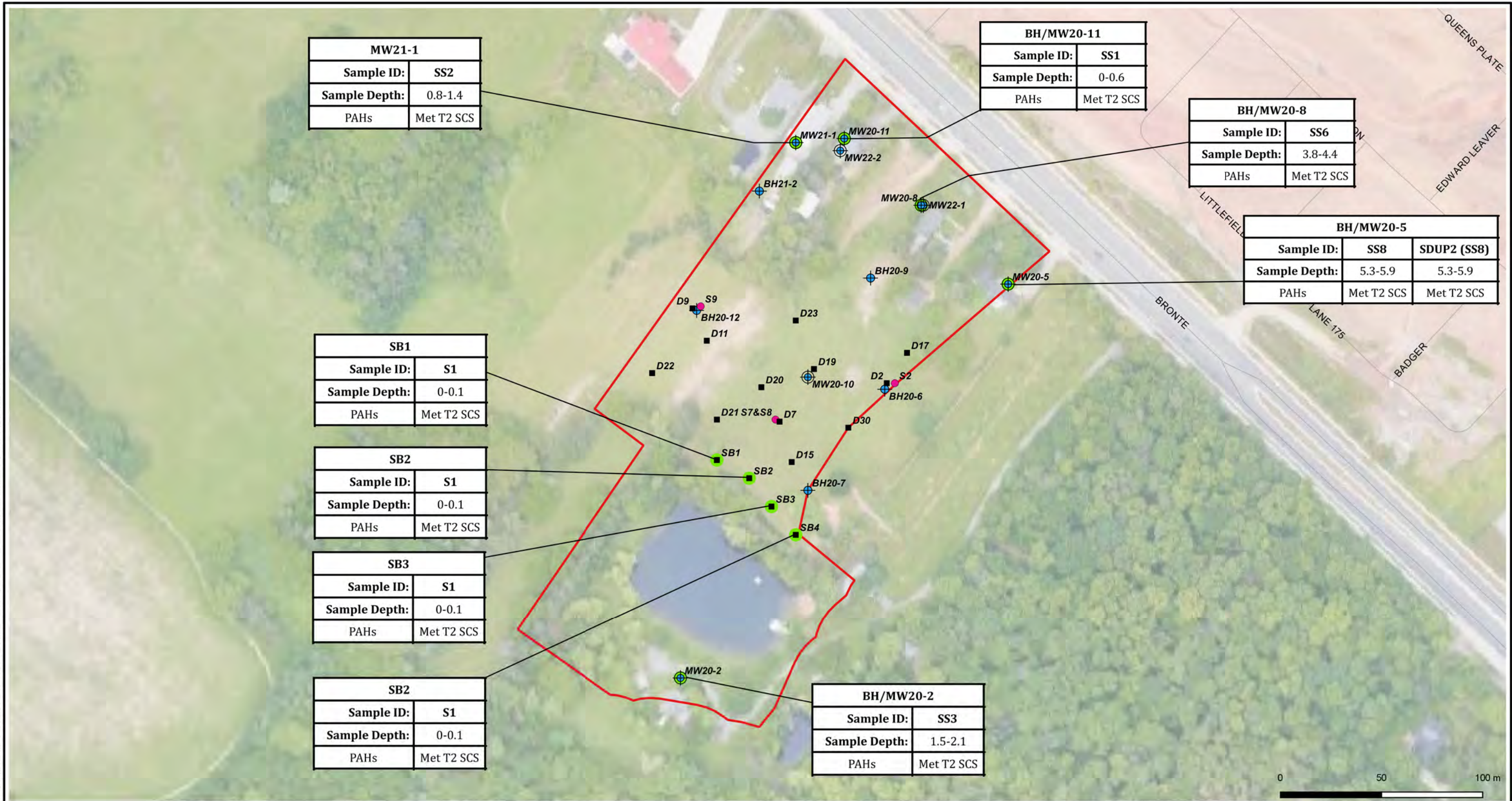
BH20-6	
Sample ID:	SS1
Sample Depth:	0-0.6
VOCs	Met T2 SCS

BH/MW20-2	
Sample ID:	SS7
Sample Depth:	6.1-6.7
VOCs	Met T2 SCS



- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON								
	Title: SOIL CHARACTERIZATION - VOCs								
Client:	ARGO DEVELOPMENT	Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	June 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	7D		
Image/Map Source: Google Satellite Image									



MW21-1	
Sample ID:	SS2
Sample Depth:	0.8-1.4
PAHs	Met T2 SCS

BH/MW20-11	
Sample ID:	SS1
Sample Depth:	0-0.6
PAHs	Met T2 SCS

BH/MW20-8	
Sample ID:	SS6
Sample Depth:	3.8-4.4
PAHs	Met T2 SCS

BH/MW20-5		
Sample ID:	SS8	SDUP2 (SS8)
Sample Depth:	5.3-5.9	5.3-5.9
PAHs	Met T2 SCS	Met T2 SCS

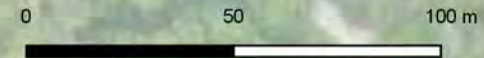
SB1	
Sample ID:	S1
Sample Depth:	0-0.1
PAHs	Met T2 SCS

SB2	
Sample ID:	S1
Sample Depth:	0-0.1
PAHs	Met T2 SCS

SB3	
Sample ID:	S1
Sample Depth:	0-0.1
PAHs	Met T2 SCS

SB2	
Sample ID:	S1
Sample Depth:	0-0.1
PAHs	Met T2 SCS

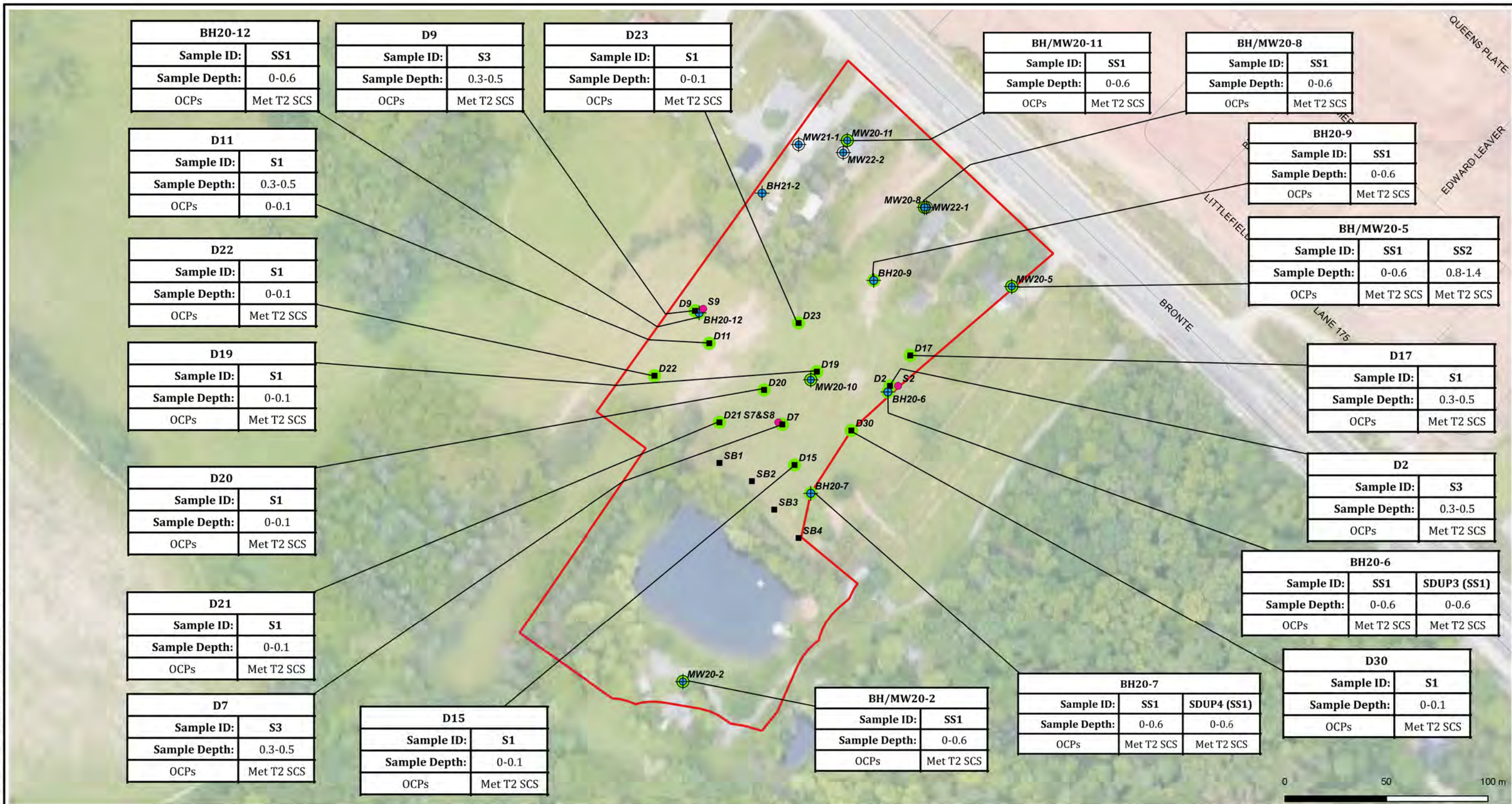
BH/MW20-2	
Sample ID:	SS3
Sample Depth:	1.5-2.1
PAHs	Met T2 SCS



- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - 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 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON			
	Title: SOIL CHARACTERIZATION - PAHs			
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 7E	Image/Map Source: Google Satellite Image

J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 7F - Soil Characterization - OCPs.ags Jun-30 10:05



BH20-12	
Sample ID:	SS1
Sample Depth:	0-0.6
OCPs	Met T2 SCS

D9	
Sample ID:	S3
Sample Depth:	0.3-0.5
OCPs	Met T2 SCS

D23	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

BH/MW20-11	
Sample ID:	SS1
Sample Depth:	0-0.6
OCPs	Met T2 SCS

BH/MW20-8	
Sample ID:	SS1
Sample Depth:	0-0.6
OCPs	Met T2 SCS

D11	
Sample ID:	S1
Sample Depth:	0.3-0.5
OCPs	0-0.1

BH20-9	
Sample ID:	SS1
Sample Depth:	0-0.6
OCPs	Met T2 SCS

D22	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

BH/MW20-5		
Sample ID:	SS1	SS2
Sample Depth:	0-0.6	0.8-1.4
OCPs	Met T2 SCS	Met T2 SCS

D19	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

D17	
Sample ID:	S1
Sample Depth:	0.3-0.5
OCPs	Met T2 SCS

D20	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

D2	
Sample ID:	S3
Sample Depth:	0.3-0.5
OCPs	Met T2 SCS

D21	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

BH20-6		
Sample ID:	SS1	SDUP3 (SS1)
Sample Depth:	0-0.6	0-0.6
OCPs	Met T2 SCS	Met T2 SCS

D7	
Sample ID:	S3
Sample Depth:	0.3-0.5
OCPs	Met T2 SCS

D15	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

BH/MW20-2	
Sample ID:	SS1
Sample Depth:	0-0.6
OCPs	Met T2 SCS

BH20-7		
Sample ID:	SS1	SDUP4 (SS1)
Sample Depth:	0-0.6	0-0.6
OCPs	Met T2 SCS	Met T2 SCS

D30	
Sample ID:	S1
Sample Depth:	0-0.1
OCPs	Met T2 SCS

- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

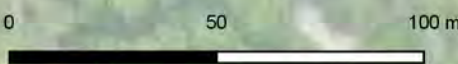
DS CONSULTANTS LTD.
 6221 Highway 7, UNIT 16
 Vaughan, Ontario L4H 0K8
 Telephone: (905) 264-9393
 www.dsconsultants.ca

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON				
Title: SOIL CHARACTERIZATION - OCPs				
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 7F	Image/Map Source: Google Satellite Image



MW20-10	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.3-4.3
Metals	Met T2 SCS

MW20-2	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.9-4.9
Metals & ORPs	Met T2 SCS



- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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	Title: GROUNDWATER CHARACTERIZATION - METALS & ORPs			
Client: ARGON DEVELOPMENT	Size: 11x17 Rev: 0	Approved By: R.F Scale: As Shown	Drawn By: P.P Project No.: 20-186-100	Date: June 2023 Figure No.: 8A
Image/Map Source: Google Satellite Image				

J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 8B - Groundwater Characterization - PHCs.ags Jun-30 10:07



MW21-1	
Sample Date:	19-Oct-21
Screen Depth (mbgs):	5.4-8.5
PHCs & BTEX	Met T2 SCS

MW22-1	
Sample Date:	30-May-23
Screen Depth (mbgs):	1.5-4.6
PHCs & BTEX	Met T2 SCS

MW20-5	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.5-4.6
PHCs & BTEX	Met T2 SCS

MW20-2	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.9-4.9
PHCs & BTEX	Met T2 SCS

0 50 100 m

- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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Client: **ARGO DEVELOPMENT**

Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
 1326 and 1350 Bronte Road & Part of 1300, 1316 and 1342 Bronte Road, Oakville, ON

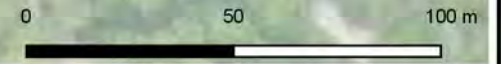
Title: **GROUNDWATER CHARACTERIZATION - PHCs & BTEX**

Size: 11x17
 Approved By: R.F. Drawn By: P.P. Date: June 2023

Rev: 0
 Scale: As Shown Project No.: 20-186-100 Figure No.: **8B**

Image/Map Source: Google Satellite Image





- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊗ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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	Title: GROUNDWATER CHARACTERIZATION - VOCs				
Client:	ARGO DEVELOPMENT	Size:	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev:		11x17	Scale: As Shown	Project No.: 20-186-100	Figure No.: 8C
		0	Image/Map Source: Google Satellite Image		

J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 1\Phase Two\Figure 8D - Groundwater Characterization - PAHs.ggs Jun-30 10:08

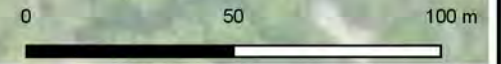


MW21-1		
Sample Date:	19-Aug-20	DUP-1
Screen Depth (mbgs):	5.4-8.5	-
PAHs	Met T2 SCS	Met T2 SCS

MW22-1	
Sample Date:	30-May-23
Screen Depth (mbgs):	1.5-4.6
PAHs	Met T2 SCS

MW20-5	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	4.3-7.4
PAHs	Met T2 SCS

MW20-2	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.8-4.9
PAHs	Met T2 SCS



- Legend**
- Property Boundary
 - + Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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	Title: GROUNDWATER CHARACTERIZATION - PAHs								
Client:	ARGO DEVELOPMENT	Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	June 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	8D		
Image/Map Source: Google Satellite Image									



MW20-10	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.3-4.3
OCPs	Met T2 SCS

- Legend**
- Property Boundary
 - ⊕ Borehole (DS 2020)
 - ⊕ Monitoring Well (DS 2020)
 - Soil Samples (2020-Soil Mat)
 - Surficial Sample (DS 2020)
 - Sample Met Applicable Standards

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	Title: GROUNDWATER CHARACTERIZATION - OCPs			
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: June 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: 8E	Image/Map Source: Google Satellite Image



Tables



Table 1: Summary of Monitoring Well Installation and Groundwater Data

Well ID		MW20-2	MW20-5	MW20-8	MW20-10	MW20-11	MW21-1	MW22-1	MW22-2	
Installed By:		DS	DS	DS	DS	DS	DS	DS	DS	
Installation Date:		13-Aug-20	14-Aug-20	12-Aug-20	12-Aug-20	18-Aug-20	07-Oct-21	25-May-23	25-May-23	
Well Status:		Active	Active	Active	Active	Active	Active	Active	Active	
Inner Diameter	mm	50	50	50	50	50	50	50	50	
Surface Elevation	masl	131.92	129.92	129.86	130.41	129.73	130.07	129.91	129.56	
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	
	masl	131.62	129.62	129.56	130.11	129.43	129.77	129.61	129.26	
Bottom of Bentonite Seal/Top of Sand Pack	mbgs	1.22	0.90	2.45	0.60	0.90	4.87	0.90	0.90	
	masl	130.70	129.02	127.41	129.81	128.83	125.20	129.01	128.66	
Top of Well Screen	mbgs	1.80	1.52	3.00	1.20	1.50	5.48	1.50	1.50	
	masl	130.12	128.40	126.86	129.21	128.23	124.59	128.41	128.06	
Well Screen Length	m	3.10	2.75	3.10	3.10	3.10	3.00	3.10	3.10	
Bottom of Well Screen	mbgs	4.90	4.27	6.10	4.30	4.60	8.48	4.60	4.60	
	masl	127.02	125.65	123.76	126.11	125.13	121.59	125.31	124.96	
GW Monitoring										
19-Aug-20	Depth to GW	mbgs	3.07	1.63	dry	1.24	dry	NI	NI	NI
	GW Elevation	masl	128.85	128.29	dry	129.17	dry	-	-	-
12-Oct-21	Depth to GW	mbgs	-	-	-	-	-	7.70	NI	NI
	GW Elevation	masl	-	-	-	-	-	122.07	-	-
30-May-23	Depth to GW	mbgs	-	-	-	-	-	-	1.46	Dry
	GW Elevation	masl	-	-	-	-	-	-	127.55	-

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 (mb)	Soil Description	Parameter Analyzed	APEC Investigated
SB1	S1	0.1	-	M&I, PAHs, PHCs, VOCs	APEC-6
SB2	S1	0.1	-	M&I, PAHs	APEC-6
SB3	S1	0.1	-	M&I, PAHs, PHCs, VOCs	APEC-6
SB4	S1	0.1	-	M&I, PAHs	APEC-6
D2	S3	0.5	Topsoil/Silty Sand	OCPs	APEC-7A
D7	S3	0.5	Topsoil/Silty Sand	OCPs	APEC-7A
D9	S3	0.5	Topsoil/Silty Sand	OCPs	APEC-7A
D11	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D15	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D17	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D19	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D20	S1	0.1	Topsoil/Sand	OCPs	APEC-7A
D21	S1	0.1	Topsoil/Sand	OCPs	APEC-7A
D22	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D23	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D29	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
	SDUP11	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
D30	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-7A
	SS1	0.0-0.6	Topsoil/Sand and Gravel	M&I, OCPs	APEC-7A
	SS3	1.5-2.1	Silty Sand	PAHs, PHCs	APEC-1
BH/MW20-2	SS7	6.1-6.7	Clay Till	VOCs	APEC-1
	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-7A
	SS3	1.5-2.1	Sand and Gravel	PHCs	APEC-4, 6a
BH/MW20-5	SDUP1			PHCs	APEC-4, 6a
	SS8	5.3-5.9	Sandy Silt Till	PAHs, PHCs	APEC-4, 6a
BH20-6	SDUP2			PAHs, PHCs	APEC-4, 6a
	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs, PHCs, VOCs	APEC-7A
BH20-7	SDUP3			OCPs	APEC-7A
	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-7A
BH20-7	SDUP4			M&I, OCPs	APEC-7A
	SS1	0.0-0.6	Fill: Sand	M&I, OCPs	APEC-7A
BH/MW20-8	SS6	3.8-4.4	Silty Clay	PHCs	APEC-2
	SS8	5.3-5.9	Silty Sand	PAHs, PHCs	APEC-2
BH20-9	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-7B
	SDUP6			M&I	APEC-7B
BH/MW20-10	SS1	0.0-0.6	Topsoil/Sand	M&I, OCPs	APEC-7B
	SDUP5			M&I, OCPs	APEC-7B
BH/MW20-11	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, PAHs, OCPs	APEC-7B
	SS5	3.1-3.7	Silty Clay Till	PHCs	APEC-7B
BH20-12	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-7B
	SS5	3.1-3.7	Silty Clay Till	PHCs, VOCs	APEC-7B
MW21-1	SS1	0-0.6	Fill - Sandy Silt	Metals and ORPs	APEC-7A
	SS2	0.8-1.4	Silty Sand	PHCs, BTEX, PAHs, pH	APEC-5
	SS3	1.5-2.1	Clayey Silt Till	VOCs, pH	APEC-5
	DUP1			VOCs	APEC-5
	SS9	8.5-8.9	Sand and Gravel	PHCs, VOCs, pH	APEC-5

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
MW20-2	127.02	- 130.12	14-Aug-20	M&I, PAHs, PHCs, VOCs	APEC-1
MW20-5	125.65	- 128.40	14-Aug-20	PAHs, PHCs	APEC-4
MW20-10	126.11	- 129.21	14-Aug-20	M&I, OCPs	Delineation
MW21-1	121.54	- 124.6	13-Oct-21	PHCs, BTEX, PAHs	APEC-5
MW22-1	125.3	- 128.4	30-May-23	PHCs, BTEX, PAHs	APEC-2

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	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-1	One (1) fuel oil AST utilize for heating purposes was observed in the basement of residential dwelling at 1300 Bronte Road.	PHCs, PAHs, BTEX	Soil	BH/MW20-2	SS3 SS7	PHCs, BTEX VOCs
			Groundwater	MW20-2	-	PHCs, VOCs
APEC-2	One (1) fuel oil AST utilized for heating purposes was observed in the basement of the residential dwelling at 1326 Bronte Road.	PHCs, PAHs, BTEX	Soil	BH/MW20-8	SS8	PHC, BTEX
			Groundwater	MW22-1	-	PHC, BTEX, PAHs
APEC-3	One (1) fuel oil AST utilized for heating purposes was observed in the basement of the residential dwelling at 1342 Bronte Road.	PHCs, PAHs, BTEX	Soil	BH/MW20-11	SS5	PHC, BTEX
APEC-4	One (1) fuel oil AST utilized for heating purposes was observed on the eastern exterior wall of the residential dwelling at 1316 Bronte Road.	PHCs, PAHs, BTEX	Soil	BH/MW20-5	SS3	PHC, BTEX
			Groundwater	MW20-5	-	PHC, BTEX
APEC-5	A former fuel oil AST utilized for heating was reportedly stored in a storage shed that was an addition to the southwest corner of the residential building at 1350 Bronte Road. The fuel oil AST was reportedly removed in approximately 2005.	PHCs, PAHs, BTEX	Soil	MW21-1	SS1	Metals and ORPs
					SS2	PHCs, BTEX, PAHs, pH
					SS3	VOCs, pH
					DUP1 (SS3)	VOCs
					SS9	PHCs, VOCs, pH
			Groundwater		-	PHCs, BTEX, PAHs
APEC-6	The berm built east of the man-made pond at 1300 Bronte Road was comprised of fill material of soil material generated from the road widening of Bronte Road.	M&I, PAHs, PHCs, VOCs	Soil	SB1	S1	M&I, PAHs, PHCs, VOCs
				SB2	S1	M&I, PAHs
				SB3	S1	M&I, PAHs, PHCs, VOCs
				SB4	S1	M&I, PAHs
APEC-7A	The Phase One Property formerly contained an orchard across the majority of the Site, with inferred pesticide application.			SB1	S1	M&I, PAHs, PHCs, VOCs
				SB2	S1	M&I, PAHs
				SB3	S1	M&I, PAHs, PHCs, VOCs
				D2	S3	OCPs
				D7	S3	OCPs
				D9	S3	OCPs
				D11	S1	OCPs
				D15	S1	OCPs
				D17	S1	OCPs
				D19	S1	OCPs
				D20	S1	OCPs
				D21	S1	OCPs
				D22	S1	OCPs
				D23	S1	OCPs
APEC-7B	The grading material surrounding the residential dwelling at 1300 Bronte Road is inferred to potentially contain pesticides associated with the excavation of Pond 1.	Metals, As, Sb, Se, CN-, OCPs	Soil	D29	S1	OCPs
				SDUP11	-	OCPs
				D30	S1	OCPs
				BH/MW20-2	SS1	M&I, OCPs
				BH20-4	SS1	M&I, OCPs
				BH/MW20-5	SS1	M&I, OCPs
				BH20-6	SS1	M&I, OCPs, PHCs, VOCs
				SDUP3	-	OCPs
				BH20-7	SS1	M&I, OCPs
				SDUP4	-	M&I, OCPs
				BH20-6	SS1	M&I, OCPs
				BH20-9	SS1	M&I, OCPs
				SDUP6	-	M&I
				BH/MW20-10	SS1	M&I, OCPs
				SDUP5	-	M&I, OCPs
				BH/MW20-11	SS1	M&I, OCPs
				BH20-12	SS1	M&I, OCPs
SS5	PHCs, VOCs					
BH/MW20-2	SS1	M&I, OCPs				



Table 5: Summary of Metals and Inorganics in Soil

Parameter	MECP Table 2 SCS	SB1-S1	SB2-S1	SB3-S1	SB4-S1	BH/MW20-2 SS1	BH/MW20-5 SS1	BH20-6 SS1	BH20-7 SS1
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	13-Aug-20	14-Aug-20	14-Aug-20	12-Aug-20
Date Reported		31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20
Sampling Depth (mbgs)		0.1	0.1	0.1	0.1	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20
Antimony	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	4.6	4.7	6.6	5.8	5	6.1	8.3	7.6
Barium	390	86	86	48	80	64	56	49	53
Beryllium	4	0.65	0.64	0.4	0.58	0.29	0.39	0.39	0.46
Boron	120	7	8	6	8	7	4	2	3
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.25	0.28	0.11	0.16	0.22	0.15	0.13	0.1
Chromium	160	22	24	13	19	11	13	12	13
Chromium VI	8	< 0.2	0.3	< 0.2	< 0.2	< 0.2	< 0.2	0.2	0.5
Cobalt	22	11	11	6.5	11	4.6	6.1	5	7
Copper	140	30	29	25	29	24	25	22	22
Cyanide	0.051	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	-	-	-
Lead	120	26	24	24	23	16	26	39	30
Mercury	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	6.9	0.5	0.5	0.3	0.5	1.2	0.3	0.3	0.4
Nickel	100	22	22	14	22	8.5	12	9.5	13
Selenium	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	20	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	1	0.14	0.15	0.09	0.15	0.09	0.08	0.09	0.11
Uranium	23	0.58	0.57	0.4	0.5	0.7	0.38	0.43	0.5
Vanadium	86	28	28	19	25	14	19	17	20
Zinc	340	89	95	45	72	89	50	45	46
Electrical Conductivity (2:1)	0.7	0.18	0.18	0.16	0.16	0.24	-	-	-
Sodium Adsorption Ratio	5	< 0.2	0.3	0.2	< 0.2	0.3	-	-	-
pH, 2:1 CaCl ₂ Extraction	NA	7.49	7.61	7.7	7.73	7.84	-	-	-

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



Table 5: Summary of Metals and Inorganics in Soil

Parameter	MECP Table 2 SCS	SDUP4 (BH20-7 SS1)	BH/MW20-8 SS1	BH20-9 SS1	SDUP6 (BH20-9 SS1)	BH/MW20-10 SS1	SDUP5 (BH/MW20-10 SS1)	BH/MW20-11 SS1
Date of Collection		12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	19-Aug-20
Date Reported		25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	31-Aug-20
Sampling Depth (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
Analytical Report Reference No.		CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14598-AUG20
Antimony	7.5	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	8.7	6.3	3.5	3.8	6.4	7.8	4.3
Barium	390	58	47	25	27	79	77	60
Beryllium	4	0.48	0.42	0.31	0.37	0.64	0.53	0.49
Boron	120	3	3	2	2	4	3	6
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.15	0.11	0.05	0.06	0.14	0.19	0.25
Chromium	160	14	11	9.1	10	21	16	13
Chromium VI	8	0.3	< 0.2	0.3	0.2	0.2	0.2	0.3
Cobalt	22	7.1	5.6	4.4	4.9	7.8	6.8	6.8
Copper	140	25	22	13	16	40	31	22
Cyanide	0.051	-	< 0.05	-	-	-	-	< 0.05
Lead	120	37	36	13	14	24	35	33
Mercury	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Molybdenum	6.9	0.4	0.3	0.2	0.2	0.2	0.2	5.8
Nickel	100	14	10	7.4	8.7	19	16	15
Selenium	2.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	20	< 0.05	< 0.05	< 0.05	< 0.05	0.06	< 0.05	< 0.05
Thallium	1	0.11	0.08	0.07	0.06	0.11	0.11	0.09
Uranium	23	0.51	0.38	0.48	0.37	0.49	0.41	0.39
Vanadium	86	21	18	16	17	26	23	19
Zinc	340	50	44	21	24	61	54	90
Electrical Conductivity (2:1)	0.7	-	0.16	-	-	-	-	0.15
Sodium Adsorption Ratio	5	-	< 0.2	-	-	-	-	0.3
pH, 2:1 CaCl2 Extraction	NA	-	7.48	-	-	-	-	7.28

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



Table 5: Summary of Metals and Inorganics in Soil

Parameter	MECP Table 2 SCS	BH20-12 SS1	MW21-1/SS1
Date of Collection		14-Aug-20	07-Oct-21
Date Reported		25-Aug-20	20-Oct-21
Sampling Depth (mbgs)		0.0-0.6	0-0.6
Analytical Report Reference No.		CA14406-AUG20	QWZ112
Antimony	7.5	< 0.8	<0.20
Arsenic	18	4.7	5.3
Barium	390	44	50
Beryllium	4	0.51	0.32
Boron	120	3	<5.0
Boron (Hot Water Soluble)	1.5	< 0.5	< 0.5
Cadmium	1.2	0.12	0.15
Chromium	160	14	10
Chromium VI	8	0.3	<0.18
Cobalt	22	7.5	4.3
Copper	140	30	15
Cyanide	0.051	-	<0.01
Lead	120	18	21
Mercury	0.27	< 0.05	<0.05
Molybdenum	6.9	0.4	<0.50
Nickel	100	15	7.8
Selenium	2.4	< 0.7	<0.50
Silver	20	< 0.05	<0.20
Thallium	1	0.11	0.081
Uranium	23	0.47	0.3
Vanadium	86	22	20
Zinc	340	46	38
Electrical Conductivity (2:1)	0.7	-	0.19
Sodium Adsorption Ratio	5	-	0.66
pH, 2:1 CaCl ₂ Extraction	NA	-	7.26

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



Table 6: Summary of PHCs in Soil

Parameter	MECP Table 2 SCS	SB1-S1	SB3-S1	BH/MW20-2 SS3	BH/MW20-2 SS7	BH/MW20-5 SS3	SDUP1 (BH/MW20-5 SS3)	BH/MW20-5 SS8
Date of Collection		20-Aug-20	20-Aug-20	13-Aug-20	13-Aug-20	14-Aug-20	14-Aug-20	14-Aug-20
Date Reported		31-Aug-20	31-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20
Sampling Depth (mbgs)		0.1	0.1	1.5-2.1	6.1-6.7	1.5-2.1	1.5-2.1	5.3-5.9
Analytical Report Reference No.		CA14587-AUG19	CA14587-AUG20	CA14406-AUG20	CA14406-AUG21	CA14406-AUG22	CA14406-AUG23	CA14406-AUG24
F1 (C6-C10)	55	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F2 (C10-C16)	98	< 10	< 10	< 10	< 10	< 10	< 10	< 10
F3 (C16-C34)	300	< 50	< 50	< 50	< 50	< 50	< 50	< 50
F4 (C34-C50)	2800	< 50	< 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 6: Summary of PHCs in Soil

Parameter	MECP Table 2 SCS	SDUP2 (BH/MW20-5 SS8)	BH20-6 SS1	BH/MW20-8 SS6	BH/MW20-8 SS8	BH/MW20-11 SS5	BH20-12 SS5	MW21-1/SS2	MW21-1/SS9
Date of Collection		14-Aug-20	14-Aug-20	12-Aug-20	12-Aug-20	19-Aug-20	14-Aug-20	07-Oct-21	07-Oct-21
Date Reported		25-Aug-20	25-Aug-20	25-Aug-20	28-Aug-20	31-Aug-20	25-Aug-20	20-Oct-21	20-Oct-21
Sampling Depth (mbgs)		5.3-5.9	0.0-0.6	3.8-4.4	5.3-5.9	3.0-3.6	3.1-3.7	0.8-1.4	8.5-8.9
Analytical Report Reference No.		CA14406-AUG25	CA14406-AUG27	CA14406-AUG26	CA14762-AUG20	CA14598-AUG20	CA14406-AUG28	QWZ113	QWZ115
F1(C6-C10)	55	< 10	< 10	< 10	< 10	<10	< 10	<10	<10
F2 (C10-C16)	98	< 10	< 10	11	< 10	13	< 10	<10	<10
F3 (C16-C34)	300	< 50	< 50	50	< 50	65	< 50	<50	<50
F4 (C34-C50)	2800	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50

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



Table 7: Summary of VOCs in Soil

Parameter	MECP Table 2 SCS	SB1-S1	SB3-S1	BH/MW20-2 SS7	BH20-6 SS1	BH20-12 SS5	MW21-1 SS3	DUP1 (MW21-1 SS3)	MW21-1 SS9
Date of Collection		20-Aug-20	20-Aug-20	13-Aug-20	14-Aug-20	14-Aug-20	07-Oct-21	07-Oct-21	07-Oct-21
Date Reported		31-Aug-20	31-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	20-Oct-21	20-Oct-21	20-Oct-21
Sampling Depth (mbgs)	0.1	0.1	6.1-6.7	0.0-0.6	3.1-3.7	1.5-2.1	1.5-2.1	8.5-8.9	
Analytical Report Reference No.	CA14587-AUG19	CA14587-AUG20	CA14406-AUG21	CA14406-AUG27	CA14406-AUG28	QWZ114	QWZ116	QWZ115	
Acetone	16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.49	<0.49	<0.49
Benzene	0.21	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.0060	<0.0060	<0.0060
Bromodichloromethane	1.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Bromoform	0.27	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Bromomethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Carbon Tetrachloride	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Chlorobenzene	2.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Chloroform	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Cis- 1,2-Dichloroethylene	1.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dibromochloromethane	2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichlorobenzene, 1,2-	1.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichlorobenzene, 1,3-	4.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichlorobenzene, 1,4-	0.083	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichlorodifluoromethane	16	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichloroethane, 1,1-	0.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.049	<0.049	<0.049
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Dichloropropene, 1,3-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.050	<0.050	<0.050
Ethylbenzene	1.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Ethylene Dibromide	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Methyl Ethyl Ketone	16	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.40	<0.40	<0.40
Methyl Isobutyl Ketone	1.7	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	<0.40	<0.40	<0.40
Methyl tert-butyl Ether	0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Methylene Chloride	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.049	<0.049	<0.049
n-Hexane	2.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Styrene	0.7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Tetrachloroethylene	0.28	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Toluene	2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.010	<0.010	<0.010
Trans- 1,2-Dichloroethylene	0.084	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Trichloroethane, 1,1,1-	0.38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Trichloroethylene	0.061	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.010	<0.010	<0.010
Trichlorofluoromethane	4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.040	<0.040	<0.040
Vinyl Chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.019	<0.019	<0.019
Xylene Mixture	3.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.020	<0.020	<0.020

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		SB1-S1	SB2-S1	SB3-S1	SB4-S1	BH/MW20-2 SS3	BH/MW20-5 SSB	SDUP2 (BH/MW20-5 SSB)	BH/MW20-8 SS6	BH/MW20-11 SS1	MW21-1 SS2
Date of Collection	MECP Table 2 SCS	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	13-Aug-20	14-Aug-20	14-Aug-20	12-Aug-20	19-Aug-20	07-Oct-21
Date Reported		14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	31-Aug-20	20-Oct-21
Sample Depth (mbgs)		0-0.1	0-0.1	0-0.1	0-0.1	1.5-2.1	5.3-5.9	5.3-5.9	3.8-4.4	0.0-0.6	0.8-1.4
Analytical Report Reference No.		CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14406-AUG20	CA14406-AUG24	CA14406-AUG24	CA14406-AUG26	CA14598-AUG20	QWZ113
Acenaphthene	7.9	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0050
Acenaphthylene	0.15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0050
Anthracene	0.67	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0050
Benz(a)anthracene	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0050
Benzo(a)pyrene	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	<0.0050
Benzo(b)fluoranthene	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.12	<0.0050
Benzo(g,h,i)perylene	6.6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.2	<0.0050
Benzo(k)fluoranthene	0.78	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<0.0050
Chrysene	7	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	<0.0050
Dibenz(a,h)anthracene	0.1	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.15	<0.0050
Fluoranthene	0.69	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	<0.0050
Fluorene	62	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.26	<0.0050
Indeno(1,2,3-cd)pyrene	0.38	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0050
Naphthalene	0.6	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	<0.0050
2-and 1-methyl Naphthalene	0.99	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	<0.0071
Phenanthrene	6.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.08	<0.0050
Pyrene	78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.19	<0.0050

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 2 SCS	D2-S3	D7-S3	D9-S3	D11-S1	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20
Date Reported		14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20
Sample Depth (mbgs)		0.5	0.5	0.5	0.1	0.1	0.1	0.1	0.1	0.1
Analytical Report Reference No.	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG19
Aldrin	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
DDD	3.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.26	< 0.05	< 0.05	< 0.05	< 0.05	0.1	< 0.05	< 0.05	0.14	< 0.05
DDT	1.4	< 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
Endosulfan	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
Hexachlorocyclohexane Gamma-	0.056	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.15	< 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
Hexachlorobenzene	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.012	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.089	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.13	< 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 9: Summary of OCPs in Soil

Parameter	MECP Table 2 SCS	D22-S1	D23-S1	SDUP11 (D29-S1)	D30-S1	BH/MW20-2 SS1	BH/MW20-5 SS1	BH/MW20-5 SS2	BH20-6 SS1	SDUP3 (BH20-6 SS1)
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	13-Aug-20	14-Aug-20	14-Aug-20	14-Aug-20	14-Aug-20
Date Reported		14-Sep-20	14-Sep-20	14-Sep-20	14-Sep-20	25-Aug-20	25-Aug-20	27-Aug-20	25-Aug-20	25-Aug-20
Sample Depth (mbgs)		0.1	0.1	0.1	0.1	0.0-0.6	0.0-0.6	0.8-1.4	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14587-AUG19	CA14587-AUG19	CA14587-AUG20	CA14587-AUG20	CA14406-AUG20	CA14406-AUG20	CA14749-AUG20	CA14406-AUG20	CA14406-AUG20
Aldrin	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
DDD	3.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.26	< 0.05	0.06	< 0.05	< 0.05	< 0.05	0.09	< 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
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.056	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.15	< 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
Hexachlorobenzene	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.012	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.089	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.13	< 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 9: Summary of OCPs in Soil

Parameter	MECP Table 2 SCS	BH20-7 SS1	SDUP4 (BH20-7 SS1)	BH/MW20-8 SS1	BH20-9 SS1	BH/MW20-10 SS1	SDUP5 (BH/MW20-10 SS1)	BH/MW20-11 SS1	BH20-12 SS1
Date of Collection		12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20	19-Aug-20	14-Aug-20
Date Reported		25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	31-Aug-20	25-Aug-20
Sample Depth (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
Analytical Report Reference No.	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14598-AUG20	CA14406-AUG20
Aldrin	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
DDD	3.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.26	< 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
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.056	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.15	< 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
Hexachlorobenzene	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.012	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.089	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.13	< 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 Inorganics in Groundwater

Parameter	MECP Table 2 SCS	MW20-2	MW20-10
Date of Collection		19-Aug-20	19-Aug-20
Date Reported		31-Aug-20	31-Aug-20
Screen Interval (mbgs)		1.8-4.9	4.3-7.4
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG20
Antimony	6	0.12	0.3
Arsenic	25	0.2	0.6
Barium	1000	50.1	73
Beryllium	4	< 0.007	< 0.007
Boron	5000	67	49
Cadmium	2.7	0.013	0.008
Chloride	790000	57000	-
Chromium	50	< 0.08	0.1
Chromium VI	25	0.3	0.3
Cobalt	3.8	0.322	0.201
Copper	87	2.5	2.4
Cyanide	66	< 2	-
Lead	10	0.04	0.07
Mercury	1	< 0.01	< 0.01
Molybdenum	70	1.18	3.26
Nickel	100	1.9	1.2
Selenium	10	< 0.04	0.26
Silver	1.5	< 0.05	< 0.05
Sodium	490000	17500	15100
Thallium	2	0.022	0.007
Uranium	20	0.531	1.36
Vanadium	6.2	0.35	0.71
Zinc	1100	4	3

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 2 SCS	MW20-2	MW20-5	MW21-1	MW22-1
Date of Collection		19-Aug-20	19-Aug-20	13-Oct-21	30-May-23
Date Reported		31-Aug-20	31-Aug-20	19-Oct-21	05-Jun-23
Screen Interval (mbgs)		1.8-4.9	4.3-7.4	5.4-8.5	1.5-4.6
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG20	QXN786	VYK316
F1 (C6 to C10) minus BTEX	750	< 25	< 25	< 25	< 25
F2 (C10 to C16)	150	< 100	< 100	< 100	< 100
F3 (C16 to C34)	500	< 200	< 200	< 200	< 200
F4 (C34 to C50) minus PAHs	500	< 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 2 SCS	MW20-2	Trip Blank
Date of Collection		19-Aug-20	-
Date Reported		31-Aug-20	31-Aug-20
Screen Interval (mbgs)		1.8-4.9	-
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG21
Acetone	2700	< 30	< 30
Benzene	5	< 0.5	< 0.5
Bromodichloromethane	16	< 0.5	< 0.5
Bromoform	25	< 0.5	< 0.5
Bromomethane	0.89	< 0.5	< 0.5
Carbon Tetrachloride	5	< 0.2	< 0.2
Chlorobenzene	30	< 0.5	< 0.5
Chloroform	22	< 0.5	< 0.5
cis- 1,2-Dichloroethylene	17	< 0.5	< 0.5
Dibromochloromethane	25	< 0.5	< 0.5
Dichlorobenzene, 1,2-	3	< 0.5	< 0.5
Dichlorobenzene, 1,3-	59	< 0.5	< 0.5
Dichlorobenzene, 1,4-	1	< 0.5	< 0.5
Dichlorodifluoromethane	590	< 2	< 2
Dichloroethane, 1,1-	5	< 0.5	< 0.5
Dichloroethane, 1,2-	5	< 0.5	< 0.5
Dichloroethylene, 1,1-	14	< 0.5	< 0.5
Dichloropropane, 1,2-	5	< 0.5	< 0.5
Dichloropropene, 1,3-	0.5	< 0.5	< 0.5
Ethylbenzene	2.4	< 0.5	< 0.5
Ethylene Dibromide	0.2	< 0.2	< 0.2
Methyl Ethyl Ketone	1800	< 1	< 1
Methyl Isobutyl Ketone	640	< 20	< 20
Methyl tert-butyl ether	15	< 20	< 20
Methylene Chloride	50	< 2	< 2
n-Hexane	520	< 0.5	< 0.5
Styrene	5.4	< 0.5	< 0.5
Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	< 0.5
Tetrachloroethane, 1,1,2,2-	1	< 0.5	< 0.5
Tetrachloroethylene	17	< 0.5	< 0.5
Toluene	24	< 0.5	< 0.5
trans- 1,2-Dichloroethylene	17	< 0.5	< 0.5
Trichloroethane, 1,1,1-	200	< 0.5	< 0.5
Trichloroethane, 1,1,2-	5	< 0.5	< 0.5
Trichloroethylene	5	< 0.5	< 0.5
Trichlorofluoromethane	150	< 5	< 5
Vinyl Chloride	1.7	< 0.2	< 0.2
Xylene Mixture	300	< 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 2 SCS	MW20-2	MW20-5	MW21-1	DUP-1 (MW21-1)	MW22-1	DUP2 (MW22-1)
Date of Collection		19-Aug-20	19-Aug-20	13-Oct-21	13-Oct-21	30-May-23	30-May-23
Date Reported		31-Aug-20	31-Aug-20	19-Oct-21	19-Oct-21	05-Jun-23	05-Jun-23
Screen Interval (mbgs)		1.8-4.9	4.3-7.4	5.4-8.5	5.4-8.5	1.5-4.6	1.5-4.6
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG20	QXN786	QXN787	VYK316	VYK317
Acenaphthene	4.1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Anthracene	2.4	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Benz(a)anthracene	1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	0.01	< 0.01	< 0.01	<0.0090	<0.0090	<0.0090	<0.0090
Benzo(b)fluoranthene	0.1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	0.2	< 0.2	< 0.2	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	0.1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Chrysene	0.1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	0.2	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Fluoranthene	0.41	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Fluorene	120	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	0.2	< 0.2	< 0.2	<0.050	<0.050	<0.050	<0.050
Naphthalene	11	< 0.5	< 0.5	<0.050	<0.050	<0.050	<0.050
2-and 1-methyl Naphthalene	3.2	< 0.5	< 0.5	<0.071	<0.071	<0.071	<0.071
Phenanthrene	1	< 0.1	< 0.1	<0.030	<0.030	<0.030	<0.030
Pyrene	4.1	< 0.1	< 0.1	<0.050	<0.050	<0.050	<0.050

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



Table 14: Summary of OCPs in Groundwater

Parameter	MECP Table 2 SCS	MW20-10
Date of Collection		19-Aug-20
Date Reported		31-Aug-20
Screen Interval (mbgs)		4.3-7.4
Analytical Report Reference No.		CA14584-AUG20
Aldrin	0.35	< 0.01
Chlordane	7	< 0.02
DDD	10	< 0.05
DDE	10	< 0.01
DDT	2.8	< 0.05
Dieldrin	0.35	< 0.01
Endosulfan	1.5	< 0.05
Endrin	0.48	< 0.05
Hexachlorocyclohexane Gamma-	1.2	< 0.01
Heptachlor	1.5	< 0.01
Heptachlor Epoxide	0.048	< 0.01
Hexachlorobenzene	1	< 0.01
Hexachlorobutadiene	0.44	< 0.01
Hexachloroethane	2.1	< 0.01
Methoxychlor	6.5	< 0.01

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 Soil

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	7.5	< 0.8	All Samples
	Arsenic	18	8.7	SDUP4 (BH20-7 SS1)
	Barium	390	86	SB1-S1
	Beryllium	4	0.64	SB1-S1
	Boron	120	8	SB2-S1
	Boron (Hot Water Soluble)	1.5	< 0.5	All Samples
	Cadmium	1.2	0.28	SB2-S1
	Chromium	160	24	SB2-S1
	Chromium VI	8	0.5	BH20-7 SS1
	Cobalt	22	11	SB1-S1
	Copper	140	40	BH/MW20-10 SS1
	Cyanide	0.051	< 0.05	All Samples
	Lead	120	39	BH20-6 SS1
	Mercury	0.27	< 0.05	All Samples
	Molybdenum	6.9	5.8	BH/MW20-11 SS1
	Nickel	100	22	SB1-S1
	Selenium	2.4	< 0.7	All Samples
	Silver	20	0.06	BH/MW20-10 SS1
	Thallium	1	0.15	SB2-S1
	Uranium	23	0.7	BH/MW20-2 SS1
	Vanadium	86	28	SB1-S1
	Zinc	340	95	SB2-S1
	Electrical Conductivity (2:1)	0.7	0.24	BH/MW20-2 SS1
Sodium Adsorption Ratio	5	0.66	MW21-1/SS1	
pH, 2:1 CaCl2 Extraction	NA	7.84	BH/MW20-2 SS1	
PHCs	F1 (C6-C10)	55	< 10	All Samples
	F2 (C10-C16)	98	13	BH/MW20-11 SS5
	F3 (C16-C34)	300	65	BH/MW20-11 SS5
	F4 (C34-C50)	2800	< 50	All Samples
VOCs	Acetone	16	< 0.5	All Samples
	Benzene	0.21	< 0.02	All Samples
	Bromodichloromethane	1.5	< 0.05	All Samples
	Bromoform	0.27	< 0.05	All Samples
	Bromomethane	0.05	< 0.05	All Samples
	Carbon Tetrachloride	0.05	< 0.05	All Samples
	Chlorobenzene	2.4	< 0.05	All Samples
	Chloroform	0.05	< 0.05	All Samples
	Cis- 1,2-Dichloroethylene	1.9	< 0.05	All Samples
	Dibromochloromethane	2.3	< 0.05	All Samples
Dichlorobenzene, 1,2-	1.2	< 0.05	All Samples	



Table 15: Summary of Maximum Concentrations in Soil

	Parameter	Standard	Maximum Concentration	Location	
VOCs	Dichlorobenzene, 1,3-	4.8	< 0.05	All Samples	
	Dichlorobenzene, 1,4-	0.083	< 0.05	All Samples	
	Dichlorodifluoromethane	16	< 0.05	All Samples	
	Dichloroethane, 1,1-	0.6	< 0.05	All Samples	
	Dichloroethane, 1,2-	0.05	< 0.05	All Samples	
	Dichloroethylene, 1,1-	0.05	< 0.05	All Samples	
	Dichloropropane, 1,2-	0.05	< 0.05	All Samples	
	Dichloropropene, 1,3-	0.05	< 0.05	All Samples	
	Ethylbenzene	1.1	< 0.05	All Samples	
	Ethylene Dibromide	0.05	< 0.05	All Samples	
	Methyl Ethyl Ketone	16	< 0.5	All Samples	
	Methyl Isobutyl Ketone	1.7	< 0.5	All Samples	
	Methyl tert-butyl Ether	0.75	< 0.05	All Samples	
	Methylene Chloride	0.1	< 0.05	All Samples	
	n-Hexane	2.8	< 0.05	All Samples	
	Styrene	0.7	< 0.05	All Samples	
	Tetrachloroethane, 1,1,1,2-	0.058	< 0.05	All Samples	
	Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	All Samples	
	Tetrachloroethylene	0.28	< 0.05	All Samples	
	Toluene	2.3	< 0.05	All Samples	
	Trans-1,2-Dichloroethylene	0.084	< 0.05	All Samples	
	Trichloroethane, 1,1,1-	0.38	< 0.05	All Samples	
	Trichloroethane, 1,1,2-	0.05	< 0.05	All Samples	
	Trichloroethylene	0.061	< 0.05	All Samples	
	Trichlorofluoromethane	4	< 0.05	All Samples	
	Vinyl Chloride	0.02	< 0.02	All Samples	
	Xylene Mixture	3.1	< 0.05	All Samples	
PAHs	Acenaphthene	7.9	< 0.05	All Samples	
	Acenaphthylene	0.15	< 0.05	All Samples	
	Anthracene	0.67	< 0.05	All Samples	
	Benz(a)anthracene	0.5	< 0.05	All Samples	
	Benzo(a)pyrene	0.3	0.08	BH/MW20-11 SS1	
	Benzo(b)fluoranthene	0.78	0.12	BH/MW20-11 SS1	
	Benzo(g,h,i)perylene	6.6	0.2	BH/MW20-11 SS1	
	Benzo(k)fluoranthene	0.78	< 0.1	All Samples	
	Chrysene	7	0.08	BH/MW20-11 SS1	
	Dibenz(a,h)anthracene	0.1	0.15	BH/MW20-11 SS1	
	Fluoranthene	0.69	< 0.06	All Samples	
	Fluorene	62	0.26	BH/MW20-11 SS1	
	Indeno(1,2,3-cd)pyrene	0.38	< 0.05	All Samples	
	Naphthalene	0.6	< 0.1	All Samples	
	2-and 1-methyl Naphthalene	0.99	< 0.05	All Samples	
	Phenanthrene	6.2	0.08	BH/MW20-11 SS1	
	Pyrene	78	0.19	BH/MW20-11 SS1	
	OCPs	Aldrin	0.05	< 0.05	All Samples
		Chlordane	0.05	< 0.05	All Samples
DDD		3.3	< 0.05	All Samples	
DDE		0.26	0.45	D1-S1	
DDT		1.4	0.12	D1-S1	
Dieldrin		0.05	< 0.05	All Samples	
Endosulfan		0.04	< 0.04	All Samples	
Endrin		0.04	< 0.04	All Samples	
Hexachlorocyclohexane Gamma-		0.056	< 0.01	All Samples	
Heptachlor		0.15	< 0.01	All Samples	
Heptachlor Epoxide		0.05	< 0.01	All Samples	
Hexachlorobenzene		0.52	< 0.01	All Samples	
Hexachlorobutadiene		0.012	< 0.01	All Samples	
Hexachloroethane		0.089	< 0.01	All Samples	
Methoxychlor		0.13	< 0.05	All Samples	



Table 16: Summary of Maximum Concentrations in Groundwater

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	6	0.3	MW20-10
	Arsenic	25	0.6	MW20-10
	Barium	1000	73	MW20-10
	Beryllium	4	< 0.007	All Samples
	Boron	5000	67	MW20-2
	Cadmium	2.7	0.013	MW20-2
	Chloride	790000	57000	MW20-2
	Chromium	50	0.1	MW20-10
	Chromium VI	25	0.3	MW20-2
	Cobalt	3.8	0.322	MW20-2
	Copper	87	2.5	MW20-2
	Cyanide	66	< 2	All Samples
	Lead	10	0.07	MW20-10
	Mercury	1	< 0.01	All Samples
	Molybdenum	70	3.26	MW20-10
	Nickel	100	1.9	MW20-2
	Selenium	10	0.26	MW20-10
	Silver	1.5	< 0.05	All Samples
	Sodium	490000	17500	MW20-2
	Thallium	2	0.022	MW20-2
Uranium	20	1.36	MW20-10	
Vanadium	6.2	0.71	MW20-10	
Zinc	1100	4	MW20-2	
PHCs	F1 (C6 to C10) minus BTEX	750	< 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	Acetone	2700	< 30	All Samples
	Benzene	5	< 0.5	All Samples
	Bromodichloromethane	16	< 0.5	All Samples
	Bromoform	25	< 0.5	All Samples
	Bromomethane	0.89	< 0.5	All Samples
	Carbon Tetrachloride	5	< 0.2	All Samples
	Chlorobenzene	30	< 0.5	All Samples
	Chloroform	22	< 0.5	All Samples
	cis- 1,2-Dichloroethylene	17	< 0.5	All Samples
	Dibromochloromethane	25	< 0.5	All Samples
	Dichlorobenzene, 1,2-	3	< 0.5	All Samples
	Dichlorobenzene, 1,3-	59	< 0.5	All Samples



Table 16: Summary of Maximum Concentrations in Groundwater

	Parameter	Standard	Maximum Concentration	Location
VOCs	Dichlorobenzene, 1,4-	1	< 0.5	All Samples
	Dichlorodifluoromethane	590	< 2	All Samples
	Dichloroethane, 1,1-	5	< 0.5	All Samples
	Dichloroethane, 1,2-	5	< 0.5	All Samples
	Dichloroethylene, 1,1-	14	< 0.5	All Samples
	Dichloropropane, 1,2-	5	< 0.5	All Samples
	Dichloropropene, 1,3-	0.5	< 0.5	All Samples
	Ethylbenzene	2.4	< 0.5	All Samples
	Ethylene Dibromide	0.2	< 0.2	All Samples
	Methyl Ethyl Ketone	1800	< 1	All Samples
	Methyl Isobutyl Ketone	640	< 20	All Samples
	Methyl tert-butyl ether	15	< 20	All Samples
	Methylene Chloride	50	< 2	All Samples
	n-Hexane	520	< 0.5	All Samples
	Styrene	5.4	< 0.5	All Samples
	Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	All Samples
	Tetrachloroethane, 1,1,2,2-	1	< 0.5	All Samples
	Tetrachloroethylene	17	< 0.5	All Samples
	Toluene	24	< 0.5	All Samples
	trans- 1,2-Dichloroethylene	17	< 0.5	All Samples
	Trichloroethane, 1,1,1-	200	< 0.5	All Samples
	Trichloroethane, 1,1,2-	5	< 0.5	All Samples
	Trichloroethylene	5	< 0.5	All Samples
	Trichlorofluoromethane	150	< 5	All Samples
	Vinyl Chloride	1.7	< 0.2	All Samples
	Xylene Mixture	300	< 0.5	All Samples
PAHs	Acenaphthene	4.1	< 0.1	All Samples
	Acenaphthylene	1	< 0.1	All Samples
	Anthracene	2.4	< 0.1	All Samples
	Benz(a)anthracene	1	< 0.1	All Samples
	Benzo(a)pyrene	0.01	< 0.01	All Samples
	Benzo(b)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	0.41	< 0.1	All Samples
	Fluorene	120	< 0.1	All Samples
	Indeno(1,2,3-cd)pyrene	0.2	< 0.2	All Samples
	Naphthalene	11	< 0.5	All Samples
	2-and 1-methyl Naphthalene	3.2	< 0.5	All Samples
	Phenanthrene	1	< 0.1	All Samples
	Pyrene	4.1	< 0.1	All Samples
	OCPs	Aldrin	0.35	< 0.01
Chlordane		7	< 0.02	All Samples
DDD		10	< 0.05	All Samples
DDE		10	< 0.01	All Samples
DDT		2.8	< 0.05	All Samples
Dieldrin		0.35	< 0.01	All Samples
Endosulfan		1.5	< 0.05	All Samples
Endrin		0.48	< 0.05	All Samples
Hexachlorocyclohexane Gamma-		1.2	< 0.01	All Samples
Heptachlor		1.5	< 0.01	All Samples
Heptachlor Epoxide		0.048	< 0.01	All Samples
Hexachlorobenzene		1	< 0.01	All Samples
Hexachlorobutadiene		0.44	< 0.01	All Samples
Hexachloroethane		2.1	< 0.01	All Samples
Methoxychlor		6.5	< 0.01	All Samples



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 2 SCS	Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Use with coarse-textured soils. 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.
mbgs	Meters below ground surface
NM	Not Monitored
NA	Not Available
OCPs	Organochlorine Pesticides
PAH	Polyaromatic Hydrocarbon
PHCs	Petroleum Hydrocarbon
M&I	Metals and Inorganics
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
Units	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
Units	Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated



Appendix A

Project Number: 20-186-100

2023-07-04

ARGO Development
4900 Palladium Way, Suite 105
Burlington, Ontario
L7M 0W7

Attention: Mr. Scott Bland,
Sent via email: scott@argoland.com

**RE: Sampling and Analysis Plan
Phase Two Environmental Site Assessment
1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte
Road, Oakville, Ontario**

Dear: Mr. Scott Bland,

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 1326 and 1350 Bronte Road & Part of 1300, 1316, 1342 and 1350 Bronte Road, Oakville, Ontario, identified as “Area 1” and herein collectively referred to as the “Phase Two Property” or “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 August, 2020, it is DS’s understanding that the Site is a 3.76 hectare parcel of land which is currently used for mixed residential and agricultural purposes. The first developed use of the Site is interpreted to be Residential and Agricultural based on the findings of the Phase One ESA. A total of eighteen (18) 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-1	Fuel Oil tank at the residential dwelling at 1300 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-1	PHCs, PAHs, BTEX	Soil and groundwater
APEC-2	Fuel Oil tank at the residential dwelling at 1326 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-2	PHCs, PAHs, BTEX	Soil and groundwater
APEC-3	Fuel Oil tank at the residential dwelling at 1342 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-3	PHCs, PAHs, BTEX	Soil
APEC-4	Fuel Oil tank at the residential dwelling at 1316 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-4	PHCs, PAHs, BTEX	Soil and groundwater
APEC-5	Previous Fuel Oil tank at the residential dwelling at 1350 Bronte Road	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-5	PHCs, PAHs, BTEX	Soil and groundwater
APEC-6	Soil berm located north of Pond 1 at 1300 Bronte Road	#30 - Importation of Fill Material of Unknown Quality	On Site PCA-6	PAHs, Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR	Soil
APEC-7A	Entire Phase One Property	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-7	OCs, metals As, Sb, Se, CN-	Soil
APEC-7B	Graded land at the residential dwelling at 1300 Bronte Road	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-8	OCs, metals As, Sb, Se, CN-	Soil

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 thirteen (13) borehole locations have been identified. The boreholes and monitoring wells will be used for combined environmental, geotechnical and hydrogeological purposes. The details of the proposed boreholes and monitoring wells are as follows:

Table Error! No text of specified style in document.-1: Summary of Investigation Program

ID	Proposed Depth	Well Installation (Y/N)	Well Install Depth	Notes	Purpose
MW20-1	6 mbgs	Yes	6 mbgs	Located adjacent to the above ground diesel tank.	Geotechnical and environmental (soil and groundwater impacts potentially associated with the tank)
MW20-2*	6 mbgs	Yes	6 mbgs	Located adjacent to the house and basement fuel oil storage tank at 1300 Bronte Road.	

MW20-5	6 mbgs	Yes	6 mbgs	Located adjacent to the house and aboveground fuel oil storage tank at 1316 Bronte Road.	Geotechnical and environmental (soil and groundwater impacts potentially associated with the tank)
BH20-6	4 mbgs	No	N/A	Located within a former orchard.	Geotechnical and environmental (soil impacts associated with the historic application of pesticides).
BH20-7	4 mbgs	No	N/A		
MW20-8	6 mbgs	Yes	6 mbgs	Located adjacent to the house and basement fuel oil storage tank at 1326 Bronte Road.	Geotechnical and environmental (soil and groundwater impacts potentially associated with the tank)
BH20-9	4 mbgs	No	N/A	Located within a former orchard.	Geotechnical and environmental (soil impacts associated with the historic application of pesticides).
MW20-10	6 mbgs	Yes	6 mbgs		
MW20-11	6 mbgs	Yes	6 mbgs	Located adjacent to the house and basement fuel oil storage tank at 1342 Bronte Road.	Geotechnical and environmental (soil and groundwater impacts potentially associated with the tank)
BH20-12	4 mbgs	No	N/A	Located within a former orchard.	Geotechnical and environmental (soil impacts associated with the historic application of pesticides).

*BH20-2 to be drilled and installed using a limited access rig due to fencing surrounding the driveway.

- In addition to the above, thirteen (13) boreholes will be advanced across the entire property and to a depth of 0.5 mbgs in order to investigate potential pesticide impacts (APEC 7A and APEC 7B) and four (4) boreholes (SB1 to SB4) will be advanced at the soil berm to the east of Pond 1 advanced to a depth of 0.1 mbgs in order to identify potential impacts from fill material (APEC 5).
- Public and private underground utilities and services will be cleared prior to commencement of intrusive investigation activities;
- A Health and Safety Plan will be prepared and all work will be executed safely;
- The soil profile from each truck drilled borehole will be logged in the field and samples will be screened for total organic vapours (TOV) with a photoionization detector (PID) and combustible gas detector (CGD). The location of the boreholes will be selected to investigate any APECs identified during the Phase One ESA, as well as to delineate the horizontal and vertical extents of relevant parameters of concern.
- Groundwater monitoring wells will be advanced in order to facilitate the collection of groundwater samples to assess the groundwater quality below the Site and to establish the direction of groundwater flow;
- Based on field screening and visual/olfactory observations, worst-case/representative soil samples from the boreholes will be submitted for laboratory testing of relevant parameters of concern;
- The groundwater levels in the wells will be measured at least 24 hours after well development has been completed, to determine the groundwater elevation. The wells will be surveyed to a geodetic benchmark to determine groundwater flow direction;
- The groundwater wells will be purged to remove stagnant water and sampled for laboratory testing of relevant parameters of concern;

- Both soil and groundwater samples will be submitted for chemical analysis by a CALA laboratory in accordance with the Ontario MOECC standards and requirements of O.Reg. 153/04 under the Environmental Protection Act.

All field equipment is to be calibrated at the start of each field day, in accordance with DS's Standard Operating Procedures (SOPs). Clean, disposable Nitrile™ gloves will be used at each sampling interval to reduce the risk of cross contamination. All non-dedicated equipment (e.g. split spoon sampler, interface probe, etc.) will be decontaminated between each borehole. The equipment will be brushed free of debris, washed with phosphate-free detergent, and then rinsed with analyte free water.

The proposed monitoring wells will be installed using 50 mm inner diameter Schedule 40 polyvinyl chloride (PVC), equipped with 50 mm inner diameter Schedule 40 PVC with #10 slot well screens. A silica sand filter pack will be placed around the well screen and up to 0.61 metres above the top of the well screen. The well annulus will be sealed with hydrated bentonite. All wells will be protected with either a flush mount well casing, or a locked monument style casing.

The collected soil and groundwater samples will be analyzed for Contaminants of Potential Concern, including Polycyclic Aromatic Hydrocarbons (PAHs), Metals and Inorganics (M&I), as well as Petroleum Hydrocarbons (PHCs) and Volatile Organic Compounds (VOCs).

In total, the Phase Two ESA will encompass submission of soil and groundwater samples from the newly advanced boreholes and monitoring wells, as well as the hand augered boreholes, to a CALA accredited laboratory for the following analyses:

Soil	Groundwater
<ul style="list-style-type: none"> • Fourteen (14) samples for analysis of metals and hydride forming metals • Eight (8) samples for analysis of CN-, Hg, Cr(VI), B-HWS, Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH (Other Regulated Parameters, ORPs) • Thirteen (13) samples for analysis of PHCs • Seven (7) samples for analysis of VOCs • Nine (9) samples for analysis of PAHs • Twenty-one (21) samples for analysis of OCPs 	<ul style="list-style-type: none"> • Two (2) samples for analysis of metals and inorganics • Four (4) samples for analysis of PHCs • Two (2) samples for analysis of VOCs • Four (4) samples for analysis of PAHs • One (1) samples for analysis of OCPs

- 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);
- Preliminary Phase Two ESA Report will be prepared upon receipt of all analytical results and groundwater monitoring data. The Report will be completed in the spirit of O.Reg. 153/04 (as amended) but may require supplementation in the future for the purposes of an RSC submission.

Following receipt of all of the results, a report in accordance with O.Reg. 153/04 will be prepared.

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.

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

Yours Very Truly,

DS Consultants Ltd.



Rick Fioravanti, B.Sc., P.Geo., QP_{ESA}
Manager – Environmental Services



Appendix B

PROJECT: Phase Two Environmental Investigation	DRILLING DATA
CLIENT: Argo Development	Method: Hollow Stem Augers
PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario	Diameter: 200 mm
DATUM: Geodetic	Date: Aug/13/2020
DRILLING COMPANY: N 4807723.701 E 600908.239	REF. NO.: 20-186-100
	ENCL NO.: 2

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)
	DESCRIPTION	NUMBER	TYPE			"N" BLOWS 0.3 m	PID (ppm)						
131.9 0.1 TOPSOIL SAND AND GRAVEL: Brown, moist.	1	SS	14		131.9	25	20						GR SA SI CL M&I and OCPs
131.2 0.8 SILTY SAND TILL: Reddish brown, moist, some gravel, trace cobbles.	2	SS	14		131.2	25	20						PAHs and PHCs
130.4 1.5 SILTY SAND TO SANDY SILT: Reddish brown, moist to very moist, trace gravel and clay.	3	SS	13		130.4	25	20						
129.6 2.3 SAND: Reddish brown, wet, trace gravel and clay.	4	SS	5		129.6	25	20						VOCs
128.1 3.8 Brown, wet. Bottom 6" more silt.	6	SS	8		128.1	25	20						
127.3 4.6 CLAY TILL: Grey to reddish brown, wet, trace gravel.	7	SS	11		127.3	25	20						

END OF BOREHOLE
Notes:
1) Monitoring well installed at 5m.
2) Water Level Measurements:
Date: Aug. 18, 2020 Water Level (mbgs) 3.06 mbgs

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation
 CLIENT: Argo Development
 PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario
 DATUM: Geodetic
 DRILLING COMPANY: N 4807918.06 E 601070.755

DRILLING DATA
 Method: Hollow Stem Augers
 Diameter: 200 mm
 Date: Aug/14/2020

REF. NO.: 20-186-100
 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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION						
129.9	TOPSOIL												GR SA SI CL
129.9 0.1	SANDY SILT: Some clay, trace gravel and cobbles, brown, moist.		1	SS	4	bentonite							M&I and OCPs
129.2 0.8	SILTY CLAY: moist.		2	SS	3								
128.4 1.5	SAND AND GRAVEL: Brown, wet, some silt.		3	SS	8	W. L. 128.3 masl Aug 18, 2020							PAHs and PHCs
127.6 2.3	SILTY CLAY TILL: Trace gravel, cobbles, grey, moist.		4	SS	7	sand							
126.9 3.1	SILT TILL: Grey, moist, some clay, trace gravel and cobbles.		5	SS	20	screen							
124.5 5.5	SANDY SILT TILL: Some clay, trace gravel and cobbles. Very moist to wet.		8	SS	50 for 30mm	cave							PHCs
123.2 6.7	END OF BOREHOLE: Notes: 1) Monitoring well installed to 4.3m. 2) Water Level Measurements: Date: Aug. 18, 2020 Water Level (mbgs) 1.61 mbgs		9	SS	87								

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation

DRILLING DATA

CLIENT: Argo Development

Method: Hollow Stem Augers

PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario Diameter: 200 mm

REF. NO.: 20-186-100

DATUM: Geodetic

Date: Aug/14/2020

ENCL NO.: 6

DRILLING COMPANY: N 4807866.754 E 601009.599

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL Metals and OCPs
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
130.5	TOPSOIL															
130.0	SILTY SAND: Brown, moist, some clay, trace organics and gravel.		1	SS	5											
129.9																
129.0	Some sand seams, wet at 0.8m		2	SS	10											
128.3																
128.3	SANDY SILT TO SILT: Brown, very moist to wet.		4	SS	5											
127.4																
127.4	SANDY SILT TO SILTY CLAY TILL: Brown, wet to very moist, trace gravel.		5	SS	11											
125.9																
125.9	SILT TILL: Grey, moist, some clay, trace gravel, some red cobbles.		6	SS	30											
124.4																
124.4	SANDY SILT: Grey, moist, some gravel and cobbles.		7	SS	50 for 6"											
123.8																
123.8	END OF BOREHOLE Notes: 1) Borehole backfilled with bentonite upon completion.															

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation

DRILLING DATA

CLIENT: Argo Development

Method: Hollow Stem Augers

PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario Diameter: 200 mm

REF. NO.: 20-186-100

DATUM: Geodetic

Date: Aug/12/2020

ENCL NO.: 7

DRILLING COMPANY: N 4807816.606 E 600971.285

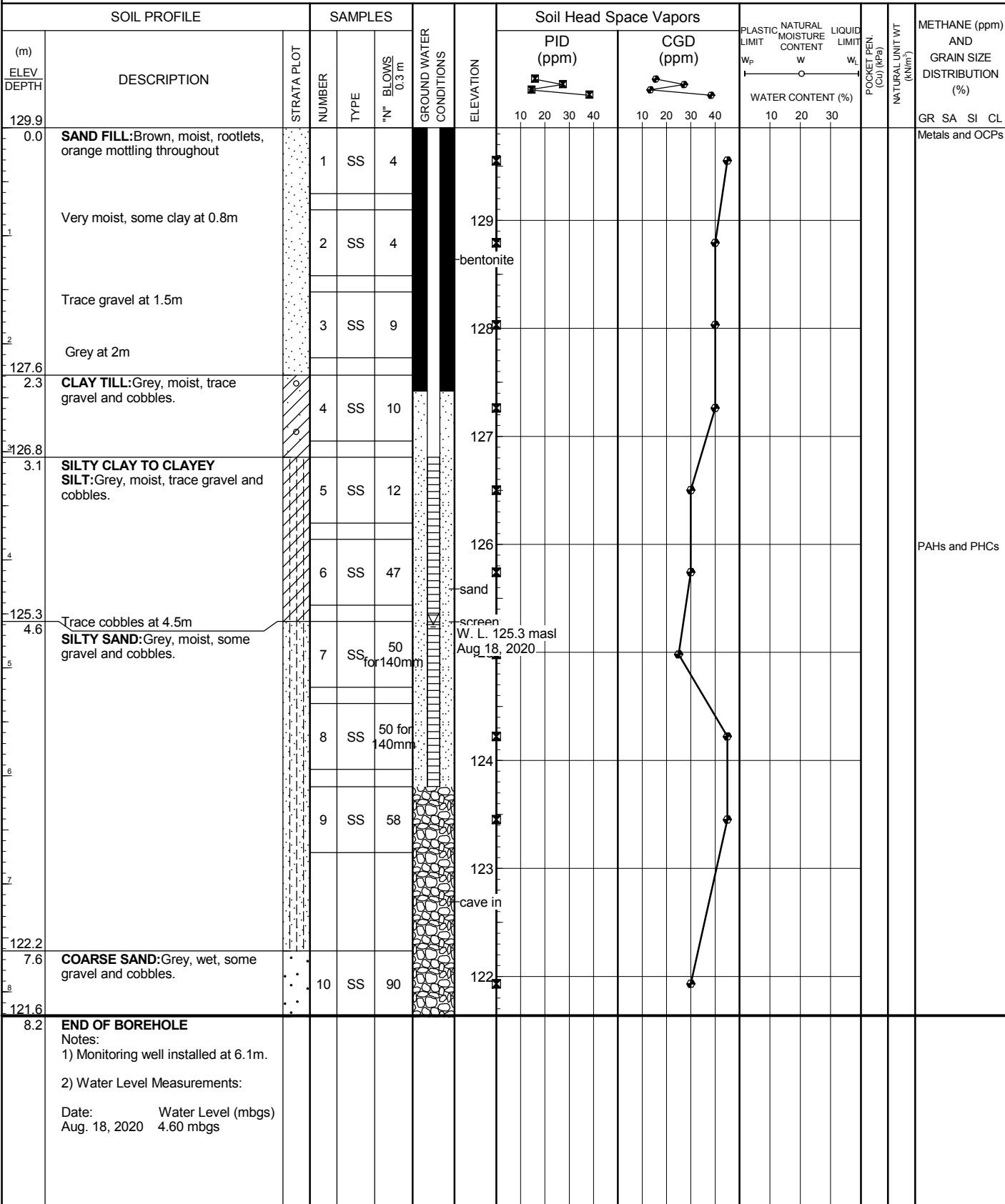
SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W _p	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W _L	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL Metals and OCPs
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
130.6	TOPSOIL														
130.0	SILTY SAND: Brown, moist, some clay, trace organics.		1	SS	5										
129.8	SAND AND GRAVEL: Brown, moist to very moist, some clay, trace cobbles.		2	SS	7										
128.9	CLAYEY SILT: Brown, very moist.		3	SS	8										
128.3	CLAYEY SILT TILL: Grey, moist, trace gravel and cobbles.		4	SS	18										
126.0	SILT TILL: Grey, moist, some clay, trace gravel and cobbles.		6	SS	34										
124.5	SAND AND GRAVEL: Brownish grey, moist, some silt, trace cobbles.		7	SS	66										
123.9	END OF BOREOLE Notes: 1) Borehole backfilled with bentonite upon completion.														

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation CLIENT: Argo Development PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario DATUM: Geodetic DRILLING COMPANY: N 4807957.169 E 601027.931	DRILLING DATA Method: Hollow Stem Augers Diameter: 200 mm Date: Aug/12/2020 REF. NO.: 20-186-100 ENCL NO.: 8
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DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ D.S.GDT. 10/1/20

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation

DRILLING DATA

CLIENT: Argo Development

Method: Hollow Stem Augers

PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario Diameter: 200 mm

REF. NO.: 20-186-100

DATUM: Geodetic

Date: Aug/12/2020

ENCL NO.: 9

DRILLING COMPANY: N 4807921.202 E 601002.487

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
130.6	TOPSOIL														
130.0	SILTY SAND: Brown, moist.		1	SS	5										GR SA SI CL Metals and OCPs
1	Very moist at 0.8m		2	SS	5										
129.1	SANDY SILT: Brown, very moist.		3	SS	8										
128.3	CLAYEY SILT: Grey, very moist to wet.		4	SS	12										
2.3	Trace gravel, trace cobbles, sand seam, very moist to wet at 3m		5	SS	12										
126.0	CLAYEY SILT TILL: Trace gravel, trace cobble, very moist.		6	SS	55 for 100mm										
4.6															
124.5	SAND AND GRAVEL: Grey, moist.		7	SS	50 for 140mm										
6.1															
122.4	END OF BOREHOLE Notes: 1) Borehole backfilled with bentonite upon completion.		8	SS	50 for 140mm										

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation

DRILLING DATA

CLIENT: Argo Development

Method: Hollow Stem Augers

PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario Diameter: 200 mm

REF. NO.: 20-186-100

DATUM: Geodetic

Date: Aug/12/2020

ENCL NO.: 10

DRILLING COMPANY: N 4807872.675 E 600971.174

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL Metals and OCPs
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION						
130.4	TOPSOIL												
0.0 130.2	SAND: Brown, very moist, some silt.		1	SS	5								
0.3													
129.6	SANDY SILT: Brown, very moist.		2	SS	13								
0.9													
128.1	SILT: Grey, very moist, some clay.		3	SS	10								
2.3													
127.4	SILT TO SANDY SILT: Grey, very moist, trace clay.		4	SS	17								
3.1 127.1													
3.3	SILTY CLAY TILL: Grey, very moist, trace gravel.		5	SS	15								
126.6													
3.8	CLAYEY SILT TILL: Grey, moist, trace gravel.		6	SS	17								
4.6	Trace cobbles at 4.6m												
125.1	SAND AND GRAVEL: Grey/brown, moist, trace cobbles and some silt.		7	SS	20								
5.3													
124.3	SANDY SILT TILL: Grey, moist, trace gravel.		8	SS	50 for 30mm								
6.1													
123.7	END OF BOREHOLE		9	SS	50 for 150mm								
6.7	Notes: 1) Monitoring well installed at 4.3m. 2) Water Level Measurements: Date: Aug. 18, 2020 Water Level (mbgs) 1.23												

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation
 CLIENT: Argo Development
 PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario
 DATUM: Geodetic
 DRILLING COMPANY: N 4807990.65 E 600989.208

DRILLING DATA
 Method: Hollow Stem Augers
 Diameter: 200 mm
 Date: Aug/19/2020

REF. NO.: 20-186-100
 ENCL NO.: 11

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION						
129.7	TOPSOIL												GR SA SI CL
129.0	FILL: Brown, moist, silty sand, trace gravel, some topsoil, rootlets.		1	SS	7		concrete						M&I, PAHs and OCPs
128.9	SANDY SILT: Brown, wet.		2	SS	7		bentonite						
128.2	CLAYEY SILT TO SILTY CLAY: Brown, very moist to wet.		3	SS	6								
127.4	CLAY TILL: Grey, very moist to wet, trace gravel and sand.		4	SS	7		sand						
126.7	SILTY CLAY TILL: Grey, moist to very moist, trace gravel and sand.		5	SS	11		screen						PHCs
125.9	SANDY SILT TILL: Brown, moist, trace gravel and cobbles.		6	SS	50 for 5"								
	Reddish brown at 5m		7	SS	50 for 4"								
123.6	END OF BOREHOLE						bentonite						
6.1	Notes: 1) Monitoring well installed at 5m. 2) Water Level Measurements: Date: Aug. 18, 2020 Water Level (mbgs) Dry												

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

PROJECT: Phase Two Environmental Investigation

DRILLING DATA

CLIENT: Argo Development

Method: Hollow Stem Augers

PROJECT LOCATION: 1300, 1316, 1326 and 1342 Bronte Road, Oakville, Ontario Diameter: 200 mm

REF. NO.: 20-186-100

DATUM: Geodetic

Date: Aug/14/2020

ENCL NO.: 12

DRILLING COMPANY: N 4807905.668 E 600916.809

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)	METHANE (ppm) AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
131.5	TOPSOIL															GR SA SI CL
130.9	SILTY SAND: Trace gravel and cobbles, some rootlets, brown and moist.		1	SS	7											Metals and OCPs
130.7	COARSE SAND AND GRAVEL: Some silt, cobbles, brown, moist.		2	SS	7											
130.0	SILTY SAND: Bottom half sand, trace gravel, very moist to wet.		3	SS	10											
129.2	SILTY SAND AND GRAVEL: Brown, wet, some cobbles.		4	SS	8											
128.4	SILTY CLAY TILL: Trace gravel, grey, very moist.		5	SS	9											
125.4	SILT TILL to SANDY SILT TILL: Grey, very moist, some clay, trace gravel and cobbles.		7	SS	50 for 89mm											
124.8	END OF BOREHOLE Notes: 1) Borehole backfilled with bentonite upon completion.															

DS ENVIRO 0-50 PPM-2016 20-186-100.GPJ DS.GDT 10/1/20

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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



PROJECT: Geotechnical Investigation-Proposed Residential Development	DRILLING DATA
CLIENT: Bronte River Limited Partnership	Method: Hollow Stem Auger
PROJECT LOCATION: 1350 Bronte Road, Oakville, ON	Diameter: 200mm
DATUM: Geodetic	Date: Oct/07/2021
BH LOCATION: See Figure 5 N 4807965.68 E 600948.56	REF. NO.: 20-186-101
	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. (Cu) (kPa)	NATURAL UNIT WT (kN/m ³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
	DESCRIPTION	STRATA PLOT	NUMBER			TYPE	"N" BLOWS 0.3 m	PID (ppm)						
130.6														
130.4	TOPSOIL: 180mm													
0.2	FILL: silty sand, trace clay, trace rootlets, trace gravel, brown, wet, loose		1	SS	4									
129.8														
0.8	FILL: sand, trace silt, brown, wet, very loose		2	SS	3									
129.1														
1.5	SILT TO SANDY SILT: some clay, brown, wet, compact		3	SS	13									
128.8	SILTY CLAY TILL: sandy, trace gravel, occasional cobble, greyish brown, moist, stiff to hard		4	SS	19									
1.8														
	grey below 3.1m		5	SS	64									
4.6	SILTY SAND TO SANDY SILT TILL: trace clay, trace gravel/cobble, brown, moist, very dense		6	SS	50/ 50mm									
	reddish brown below 6.1m		7	SS	50/ 50mm									
7.6	GRAVELLY SAND: trace silt, reddish brown, wet, very dense		8	SS	56									
8.2	END OF BOREHOLE: Notes: 1) Water at depth of 7.6m during drilling.													

DS ENVIRO 0-50 PPM-2021 20-186-101-ENV COPY GPJ_DS_GDT 6/29/23

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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



PROJECT: Preliminary Geotechnical Investigation - proposed Subdivision
 CLIENT: Argo Development
 PROJECT LOCATION: 1326 Bronte Road, Oakville, ON
 DATUM: Geodetic
 BH LOCATION: See Figure 5 N 4807982.28 E 600985.59

DRILLING DATA
 Method: Hollow Stem Auger
 Diameter: 200mm
 Date: May/25/2023

REF. NO.: 20-186-100
 ENCL NO.: 12

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)						
129.6	TOPSOIL: 125mm FILL: silty sand, mixed with topsoil, brown, moist, loose		1	SS	4		129							
128.8	SILTY SAND: sandy silt, brown, wet, loose		2	SS	8		128							
128.1	CLAYEY SILT: clayey silt to silty clay, brown, wet, firm		3	SS	8		128							
127.3	CLAYEY SILT TILL: trace sand, trace gravel, grey, very moist, firm to stiff		4	SS	10		127							
	occasional cobble/ boulder below 3m		5	SS	14		126							
			6	SS	50/ 100mm		125							

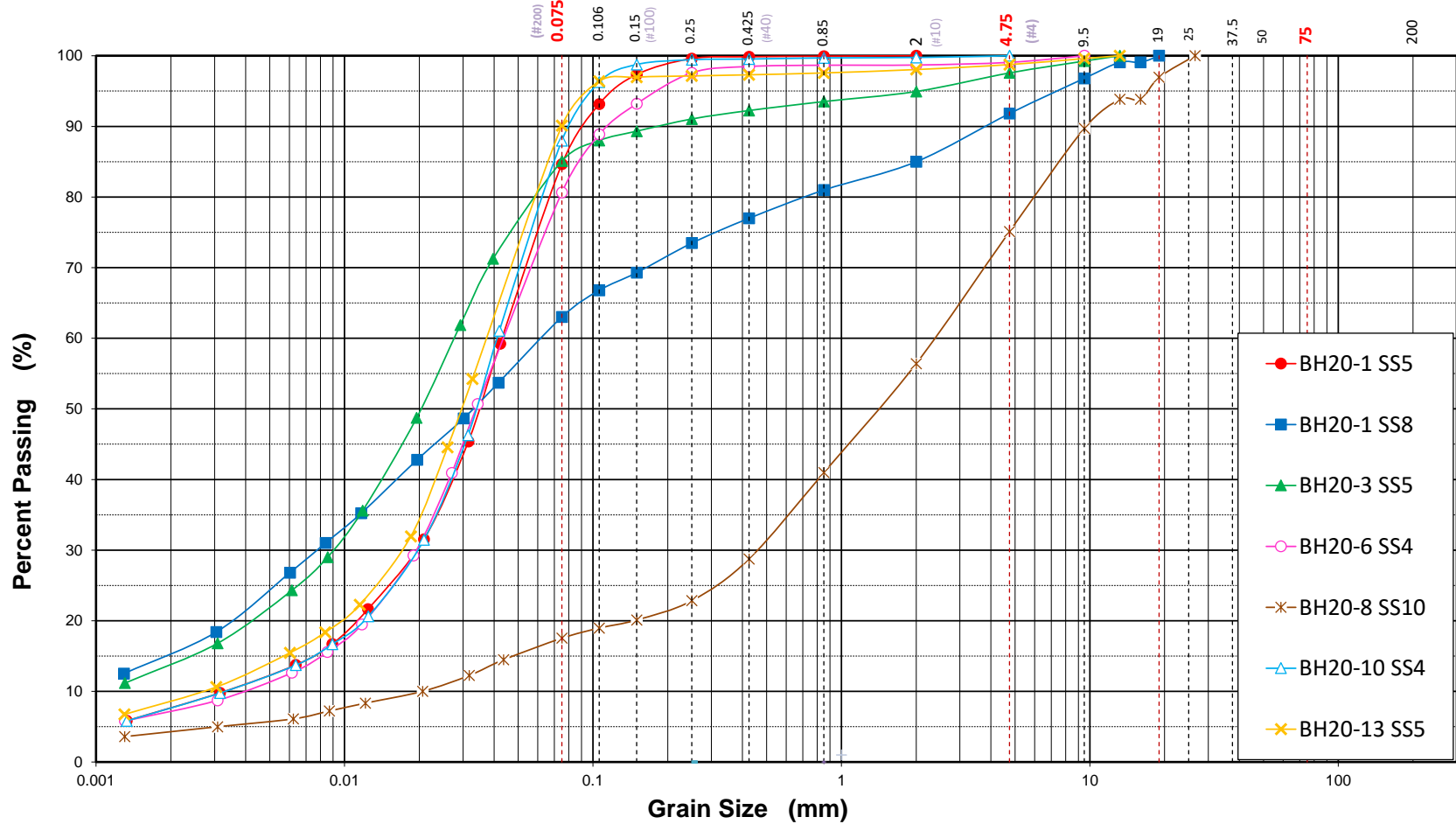
END OF BOREHOLE:
 Notes:
 1) Water depth at 0.8m below grade during drilling.
 2) 50mm dia. monitoring well installed upon completion.
 3) Water level Reading:
 Date: Water Level (mbgl):
 May 29, 2023 Dry
 June 12, 2023 Dry
 June 26, 2023 Dry


DS ENVIRO 0-50 PPM-2021 20-186-100 1326 BRONTE ROAD_ARGO DEVELOPMENT - COPY.GPJ DS.GDT 6/29/23

GROUNDWATER ELEVATIONS
 Measurement 1st 2nd 3rd 4th

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

Particle Size Distribution (ASTM-D421/D422)



Silt and Clay		Sand			Gravel		Cobble +
Clay	Silt	Fine	Medium	Coarse	Fine	Coarse	
 <p>DS CONSULTANTS LTD. 6221 Highway 7, Unit 16 Vaughan, Ontario, L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project	Preliminary Geotechnical Investigation				Project No	20-186-100
	Location	1326 Bronte Rd, Oakville, ON				Date	Aug/31/2020
	Client	Argo Development				Figure No	16



Appendix C



FINAL REPORT

CA14598-AUG20 R

20-186-100, Bronte Road

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	20-186-100, Bronte Road	SGS Reference	CA14598-AUG20
Order Number		Received	08/21/2020
Samples	soil (2)	Approved	08/31/2020
		Report Number	CA14598-AUG20 R
		Date Reported	08/31/2020

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: 9 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

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

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

Sample Number 9
Sample Name MW20-11 SS5
Sample Matrix soil
Sample Date 19/08/2020

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

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

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

Sample Number 8
Sample Name MW20-11 SS1
Sample Matrix soil
Sample Date 19/08/2020

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

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



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9
Sample Name	MW20-11 SS1	MW20-11 SS5
Sample Matrix	soil	soil
Sample Date	19/08/2020	19/08/2020

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

Parameter	Units	RL	L1	Result	Result
Metals and Inorganics					
Moisture Content	%	-		10.1	12.1
Barium	µg/g	0.1	220	60	
Beryllium	µg/g	0.02	2.5	0.49	
Boron	µg/g	1	36	6	
Cadmium	µg/g	0.02	1.2	0.25	
Chromium	µg/g	0.5	70	13	
Cobalt	µg/g	0.01	21	6.8	
Copper	µg/g	0.1	92	22	
Lead	µg/g	0.1	120	33	
Molybdenum	µg/g	0.1	2	5.8	
Nickel	µg/g	0.5	82	15	
Silver	µg/g	0.05	0.5	< 0.05	
Thallium	µg/g	0.02	1	0.09	
Uranium	µg/g	0.002	2.5	0.39	
Vanadium	µg/g	3	86	19	
Zinc	µg/g	0.7	290	90	
Water Soluble Boron	µg/g	0.5		< 0.5	



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

Sample Number 8

Sample Name MW20-11 SS1

Sample Matrix soil

Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
Organochlorine Pests (OCs)				
Aldrin	µg/g	0.05	0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02
pp-DDD	µg/g	0.02		< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02
pp-DDE	µg/g	0.02		< 0.02
DDE (total)	µg/g	0.05	0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02
pp-DDT	µg/g	0.02		< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01
Endosulfan I	µg/g	0.02		< 0.02
Endosulfan II	µg/g	0.02		< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

Sample Number 8

Sample Name MW20-11 SS1

Sample Matrix soil

Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
Organochlorine Pests (OCs) (continued)				
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05

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

Sample Number 8

Sample Name MW20-11 SS1

Sample Matrix soil

Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
Other (ORP)				
Mercury	µg/g	0.05	0.27	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	0.3
SAR Calcium	mg/L	0.09		25.0
SAR Magnesium	mg/L	0.02		2.9
SAR Sodium	mg/L	0.15		5.6
Conductivity	mS/cm	0.002	0.57	0.15
pH	pH Units	0.05		7.28
Chromium VI	µg/g	0.2	0.66	0.3
Free Cyanide	µg/g	0.05	0.051	< 0.05



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - PAHs (SOIL)

Sample Number 8
Sample Name MW20-11 SS1
Sample Matrix soil
Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
PAHs				
Acenaphthene	µg/g	0.05	0.072	< 0.05
Acenaphthylene	µg/g	0.05	0.093	< 0.05
Anthracene	µg/g	0.05	0.16	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.36	0.08
Benzo(a)pyrene	µg/g	0.05	0.3	0.12
Benzo(b+j)fluoranthene	µg/g	0.05	0.47	0.20
Benzo(ghi)perylene	µg/g	0.1	0.68	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.48	0.08
Chrysene	µg/g	0.05	2.8	0.15
Dibenzo(a,h)anthracene	µg/g	0.06	0.1	< 0.06
Fluoranthene	µg/g	0.05	0.56	0.26
Fluorene	µg/g	0.05	0.12	< 0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.23	< 0.1
1-Methylnaphthalene	µg/g	0.05		< 0.05
2-Methylnaphthalene	µg/g	0.05		< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.59	< 0.05
Naphthalene	µg/g	0.05	0.09	< 0.05
Phenanthrene	µg/g	0.05	0.69	0.08
Pyrene	µg/g	0.05	1	0.19



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: **REG153 - Pesticides Surrogate** (SOIL)

Sample Number 8
Sample Name MW20-11 SS1
Sample Matrix soil
Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
Pesticides Surrogate				
Surr Decachlorobiphenyl	Surr Rec %	-		105

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

Sample Number 9
Sample Name MW20-11 SS5
Sample Matrix soil
Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
PHCs				
F1 (C6-C10)	µg/g	10	25	< 10
F1-BTEX (C6-C10)	µg/g	10		< 10
F2 (C10-C16)	µg/g	10	10	13
F3 (C16-C34)	µg/g	50	240	65
F4 (C34-C50)	µg/g	50	120	< 50
Chromatogram returned to baseline at nC50	Yes / No	-		YES



FINAL REPORT

CA14598-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: **REG153 - SVOC Surrogates (SOIL)**

Sample Number 8
Sample Name MW20-11 SS1
Sample Matrix soil
Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
SVOC Surrogates				
Surr Nitrobenzene-d5	Surr Rec %	-		82
Surr 2-Fluorobiphenyl	Surr Rec %	-		95
Surr 4-Terphenyl-d14	Surr Rec %	-		95
Surr 2-Fluorophenol	Surr Rec %	-		76
Surr Phenol-d6	Surr Rec %	-		82
Surr 2,4,6-Tribromophenol	Surr Rec %	-		78

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

Sample Number 8
Sample Name MW20-11 SS1
Sample Matrix soil
Sample Date 19/08/2020

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

Parameter	Units	RL	L1	Result
VOC Surrogates				
Surr TCMX	Surr Rec %	-		93

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
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MW20-11 SS1

Molybdenum	EPA 3050/EPA 200.8	µg/g	5.8	2
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MW20-11 SS5

F2 (C10 to C16)	CCME Tier 1	µg/g	13	10
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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

MW20-11 SS1	EWL0377-AUG20	8	08/19/2020	08/21/2020	08/27/2020	08/27/2020	09/16/2020	08/27/2020
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Cyanide by SFA

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

MW20-11 SS1	SKA5087-AUG20	8	08/19/2020	08/21/2020	08/24/2020	08/25/2020	09/02/2020	08/25/2020
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Hexavalent Chromium by SFA

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

MW20-11 SS1	SKA5086-AUG20	8	08/19/2020	08/21/2020	08/24/2020	08/26/2020	09/18/2020	08/27/2020
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Mercury by CVAAS

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

MW20-11 SS1	EMS0177-AUG20	8	08/19/2020	08/21/2020	08/26/2020	08/27/2020	09/16/2020	08/28/2020
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Metals in aqueous samples - ICP-OES

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

MW20-11 SS1	ESG0083-AUG20	8	08/19/2020	08/21/2020	08/27/2020	08/27/2020	02/15/2021	08/27/2020
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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

MW20-11 SS1	EMS0177-AUG20	8	08/19/2020	08/21/2020	08/26/2020	08/27/2020	02/15/2021	08/31/2020
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Moisture

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

MW20-11 SS1	GCM0405-AUG20	8	08/19/2020	08/21/2020	08/26/2020	08/27/2020	10/18/2020	08/25/2020
MW20-11 SS5	GCM0405-AUG20	9	08/19/2020	08/21/2020	08/26/2020	08/27/2020	10/18/2020	08/25/2020

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

MW20-11 SS1	GCM0388-AUG20	8	08/19/2020	08/21/2020	08/24/2020	08/25/2020	09/28/2020	08/27/2020
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Petroleum Hydrocarbons (F1)

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

MW20-11 SS5	GCM0392-AUG20	9	08/19/2020	08/21/2020	08/26/2020	08/27/2020	09/02/2020	08/25/2020
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Petroleum Hydrocarbons (F2-F4)

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

MW20-11 SS5	GCM0463-AUG20	9	08/19/2020	08/21/2020	08/26/2020	08/27/2020	09/28/2020	08/27/2020
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pH

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

MW20-11 SS1	ARD0081-AUG20	8	08/19/2020	08/21/2020	08/24/2020	08/24/2020	09/18/2020	08/24/2020
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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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Semi-Volatile Organics

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

MW20-11 SS1	GCM5007-AUG20	8	08/19/2020	08/21/2020	08/28/2020	08/28/2020	10/18/2020	08/31/2020
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Sodium adsorption ratio (SAR)

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

MW20-11 SS1	ESG0083-AUG20	8	08/19/2020	08/21/2020	08/27/2020	08/27/2020	02/15/2021	08/27/2020
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Volatile Organics

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

MW20-11 SS5	GCM0391-AUG20	9	08/19/2020	08/21/2020	08/24/2020	08/24/2020	09/02/2020	08/26/2020
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Water Soluble Boron

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

MW20-11 SS1	ESG0079-AUG20	8	08/19/2020	08/21/2020	08/27/2020	08/27/2020	02/15/2021	08/27/2020
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FINAL REPORT

CA14598-AUG20 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	EWL0377-AUG20	mS/cm	0.002	<0.002	0	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	SKA5087-AUG20	µg/g	0.05	<0.05	ND	20	96	80	120	96	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	SKA5086-AUG20	ug/g	0.2	<0.2	ND	20	91	80	120	81	75	125

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	EMS0170-AUG20	µg/g	0.05	<0.05	ND	20	102	80	120	94	70	130
Mercury	EMS0177-AUG20	µg/g	0.05	<0.05	ND	20	107	80	120	90	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	ESG0083-AUG20	mg/L	0.09	<0.09	7	20	105	80	120	104	70	130
SAR Magnesium	ESG0083-AUG20	mg/L	0.02	<0.02	ND	20	103	80	120	107	70	130
SAR Sodium	ESG0083-AUG20	mg/L	0.15	<0.15	7	20	104	80	120	110	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	EMS0170-AUG20	ug/g	0.05	<0.05	ND	20	101	70	130	117	70	130
Arsenic	EMS0170-AUG20	µg/g	0.5	<0.5	2	20	104	70	130	104	70	130
Barium	EMS0170-AUG20	ug/g	0.1	<0.1	4	20	105	70	130	104	70	130
Beryllium	EMS0170-AUG20	µg/g	0.02	<0.02	5	20	103	70	130	102	70	130
Boron	EMS0170-AUG20	µg/g	1	<1	5	20	99	70	130	91	70	130
Cadmium	EMS0170-AUG20	µg/g	0.02	<0.02	2	20	92	70	130	113	70	130
Cobalt	EMS0170-AUG20	µg/g	0.01	<0.01	6	20	100	70	130	123	70	130
Chromium	EMS0170-AUG20	µg/g	0.5	<0.5	4	20	100	70	130	110	70	130
Copper	EMS0170-AUG20	µg/g	0.1	<0.1	3	20	103	70	130	123	70	130
Molybdenum	EMS0170-AUG20	µg/g	0.1	<0.1	2	20	93	70	130	123	70	130
Nickel	EMS0170-AUG20	ug/g	0.5	<0.5	5	20	98	70	130	122	70	130
Lead	EMS0170-AUG20	µg/g	0.1	<0.1	2	20	105	70	130	105	70	130
Antimony	EMS0170-AUG20	µg/g	0.8	<0.8	ND	20	108	70	130	123	70	130
Selenium	EMS0170-AUG20	µg/g	0.7	<0.7	ND	20	107	70	130	111	70	130
Thallium	EMS0170-AUG20	µg/g	0.02	<0.02	8	20	110	70	130	114	70	130
Uranium	EMS0170-AUG20	µg/g	0.002	<0.002	1	20	103	70	130	97	70	130
Vanadium	EMS0170-AUG20	µg/g	3	<3	7	20	101	70	130	104	70	130
Zinc	EMS0170-AUG20	µg/g	0.7	<0.7	4	20	97	70	130	109	70	130
Silver	EMS0177-AUG20	ug/g	0.05	<0.05	ND	20	93	70	130	99	70	130
Arsenic	EMS0177-AUG20	µg/g	0.5	<0.5	11	20	97	70	130	101	70	130



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QC SUMMARY

Metals in Soil - Aqua-regia/ICP-MS (continued)

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
Barium	EMS0177-AUG20	ug/g	0.1	<0.1	14	20	105	70	130	98	70	130
Beryllium	EMS0177-AUG20	µg/g	0.02	<0.02	ND	20	101	70	130	98	70	130
Boron	EMS0177-AUG20	µg/g	1	<1	9	20	99	70	130	89	70	130
Cadmium	EMS0177-AUG20	µg/g	0.02	<0.02	ND	20	104	70	130	117	70	130
Cobalt	EMS0177-AUG20	µg/g	0.01	<0.01	16	20	97	70	130	113	70	130
Chromium	EMS0177-AUG20	µg/g	0.5	<0.5	9	20	95	70	130	103	70	130
Copper	EMS0177-AUG20	µg/g	0.1	<0.1	6	20	104	70	130	119	70	130
Molybdenum	EMS0177-AUG20	µg/g	0.1	<0.1	16	20	94	70	130	98	70	130
Nickel	EMS0177-AUG20	ug/g	0.5	<0.5	1	20	102	70	130	119	70	130
Lead	EMS0177-AUG20	µg/g	0.1	<0.1	ND	20	106	70	130	107	70	130
Antimony	EMS0177-AUG20	µg/g	0.8	<0.8	ND	20	101	70	130	121	70	130
Selenium	EMS0177-AUG20	µg/g	0.7	<0.7	ND	20	97	70	130	103	70	130
Thallium	EMS0177-AUG20	µg/g	0.02	<0.02	ND	20	105	70	130	110	70	130
Uranium	EMS0177-AUG20	µg/g	0.002	<0.002	7	20	106	70	130	110	70	130
Vanadium	EMS0177-AUG20	µg/g	3	<3	ND	20	98	70	130	103	70	130
Zinc	EMS0177-AUG20	µg/g	0.7	<0.7	ND	20	100	70	130	111	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	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	97	50	140
alpha-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Dieldrin	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	100	50	140
Endosulfan I	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	98	50	140
Endosulfan II	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	91	50	140
Endrin	GCM0388-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	110	50	140
gamma-BHC	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	94	50	140
gamma-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Heptachlor epoxide	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	98	50	140
Heptachlor	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	96	50	140
Hexachlorobenzene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachlorobutadiene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachloroethane	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	91	50	140
Methoxychlor	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	102	50	140
o,p-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	106	50	140
o,p-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	101	50	140
op-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	89	50	140
pp-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	82	50	140	113	50	140
pp-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	100	50	140
pp-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	89	50	140



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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)	GCM0392-AUG20	µg/g	10	<10	ND	30	94	80	120	91	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)	GCM0463-AUG20	µg/g	10	<10	ND	30	118	80	120	105	60	140
F3 (C16-C34)	GCM0463-AUG20	µg/g	50	<50	ND	30	118	80	120	105	60	140
F4 (C34-C50)	GCM0463-AUG20	µg/g	50	<50	ND	30	118	80	120	105	60	140



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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	ARD0081-AUG20	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	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	83	50	140	92	50	140
2-Methylnaphthalene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	79	50	140	89	50	140
Acenaphthene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	91	50	140	91	50	140
Acenaphthylene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	91	50	140
Anthracene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	88	50	140
Benzo(a)anthracene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	92	50	140
Benzo(a)pyrene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	90	50	140
Benzo(b+j)fluoranthene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	92	50	140
Benzo(ghi)perylene	GCM5007-AUG20	µg/g	0.1	< 0.1	ND	40	88	50	140	90	50	140
Benzo(k)fluoranthene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	82	50	140	87	50	140
Chrysene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	89	50	140
Dibenzo(a,h)anthracene	GCM5007-AUG20	µg/g	0.06	< 0.06	ND	40	87	50	140	91	50	140
Fluoranthene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	91	50	140	92	50	140
Fluorene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	87	50	140
Indeno(1,2,3-cd)pyrene	GCM5007-AUG20	µg/g	0.1	< 0.1	ND	40	86	50	140	90	50	140
Naphthalene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	89	50	140
Phenanthrene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	90	50	140
Pyrene	GCM5007-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	95	50	140



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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	GCM0391-AUG20	µg/g	0.02	< 0.02	ND	50	89	60	130	94	50	140
Ethylbenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
m/p-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
o-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
Toluene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140

Water Soluble Boron

Method: O.Req. 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	ESG0079-AUG20	µg/g	0.5	<0.5	ND	20	101	80	120	110	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 --



FINAL REPORT

CA14749-AUG20 R

20-186-100, Bronte Road

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	20-186-100, Bronte Road	SGS Reference	CA14749-AUG20
Order Number		Received	08/25/2020
Samples	soil (3)	Approved	08/27/2020
		Report Number	CA14749-AUG20 R
		Date Reported	08/27/2020

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: 5 degrees C

Cooling Agent Present: Yes

Custody Seal Present: No

Chain of Custody Number: N/A

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14749-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9	10
Sample Name	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
Sample Matrix	soil	soil	soil
Sample Date	17/08/2020	17/08/2020	17/08/2020

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
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Metals and Inorganics

Moisture Content	%	-			6.3	9.1	15.1
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PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

Sample Number	8	9	10
Sample Name	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
Sample Matrix	soil	soil	soil
Sample Date	17/08/2020	17/08/2020	17/08/2020

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
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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	0.05	0.05	< 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	0.05	0.05	< 0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02			< 0.02	< 0.02	< 0.02
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



FINAL REPORT

CA14749-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

L2 = REG153 / SOIL / FINE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED

Sample Number	8	9	10
Sample Name	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
Sample Matrix	soil	soil	soil
Sample Date	17/08/2020	17/08/2020	17/08/2020

Parameter	Units	RL	L1	L2	Result	Result	Result
Organochlorine Pests (OCs) (continued)							
gamma-BHC	µg/g	0.01	0.01	0.01	< 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	0.05	0.05	< 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	0.01	0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.01	0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14749-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	8	9	10
Sample Name	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
Sample Matrix	soil	soil	soil
Sample Date	17/08/2020	17/08/2020	17/08/2020

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
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Pesticides Surrogate

Surr Decachlorobiphenyl	Surr Rec %	-			93	92	90
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PACKAGE: **REG153 - VOC Surrogates (SOIL)**

Sample Number	8	9	10
Sample Name	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
Sample Matrix	soil	soil	soil
Sample Date	17/08/2020	17/08/2020	17/08/2020

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
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VOC Surrogates

Surr TCMX	Surr Rec %	-			89	83	74
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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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Moisture

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

MW20-3 SS2	GCM0455-AUG20	8	08/17/2020	08/25/2020	08/26/2020	08/27/2020	10/16/2020	08/27/2020
BH20-4 SS2	GCM0455-AUG20	9	08/17/2020	08/25/2020	08/26/2020	08/27/2020	10/16/2020	08/27/2020
MW20-5 SS2	GCM0455-AUG20	10	08/17/2020	08/25/2020	08/26/2020	08/27/2020	10/16/2020	08/27/2020

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

MW20-3 SS2	GCM0439-AUG20	8	08/17/2020	08/25/2020	08/26/2020	08/26/2020	09/26/2020	08/27/2020
BH20-4 SS2	GCM0439-AUG20	9	08/17/2020	08/25/2020	08/26/2020	08/26/2020	09/26/2020	08/27/2020
MW20-5 SS2	GCM0439-AUG20	10	08/17/2020	08/25/2020	08/26/2020	08/26/2020	09/26/2020	08/27/2020

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	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	84	50	140
alpha-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	82	50	140
Dieldrin	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	83	50	140
Endosulfan I	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	84	50	140
Endosulfan II	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	81	50	140
Endrin	GCM0439-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	85	50	140
gamma-BHC	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	88	50	140	83	50	140
gamma-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	82	50	140
Heptachlor epoxide	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Heptachlor	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	81	50	140
Hexachlorobenzene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Hexachlorobutadiene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	78	50	140	77	50	140
Hexachloroethane	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	71	50	140	68	50	140
Methoxychlor	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	94	50	140
o,p-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	84	50	140	81	50	140
o,p-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	86	50	140
op-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	82	50	140
pp-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	81	50	140	79	50	140
pp-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	87	50	140
pp-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	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.

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-- End of Analytical Report --



FINAL REPORT

CA14762-AUG20 R1

20-186-100, Bronte Road

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 Canada, L4H 0K8 Phone: 905-264-9393. Fax:905-264-2685	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	20-186-100, Bronte Road	SGS Reference	CA14762-AUG20
Order Number		Received	08/26/2020
Samples	soil (1)	Approved	08/28/2020
		Report Number	CA14762-AUG20 R1
		Date Reported	08/28/2020

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:N/A

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14762-AUG20 R1

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number 8
Sample Name MW20-8 SS8
Sample Matrix soil

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

Parameter	Units	RL	L1	Result
Metals and Inorganics				
Moisture Content	%	0.1		6.8

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

Sample Number 8
Sample Name MW20-8 SS8
Sample Matrix soil

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

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

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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Moisture

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

MW20-8 SS8	GCM0472-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/27/2020
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Petroleum Hydrocarbons (F1)

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

MW20-8 SS8	GCM0478-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/27/2020
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Petroleum Hydrocarbons (F2-F4)

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

MW20-8 SS8	GCM0484-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/28/2020
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FINAL REPORT

CA14762-AUG20 R1

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)	GCM0478-AUG20	µg/g	10	<10	ND	30	88	80	120	86	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)	GCM0484-AUG20	µg/g	10	<10	ND	30	112	80	120	105	60	140
F3 (C16-C34)	GCM0484-AUG20	µg/g	50	<50	ND	30	112	80	120	105	60	140
F4 (C34-C50)	GCM0484-AUG20	µg/g	50	<50	ND	30	112	80	120	105	60	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.

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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

CA14765-AUG20 R1

20-186-100

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 Canada, L4H 0K8 Phone: 905-264-9393. Fax:905-264-2685	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	20-186-100	SGS Reference	CA14765-AUG20
Order Number		Received	08/26/2020
Samples	soil (1)	Approved	09/01/2020
		Report Number	CA14765-AUG20 R1
		Date Reported	09/01/2020

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:N/A

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14765-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number 8
Sample Name MW20-8 SS6
Sample Matrix soil

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					
Moisture Content	%	0.1			10.5

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

Sample Number 8
Sample Name MW20-8 SS6
Sample Matrix soil

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
PHCs					
F2 (C10-C16)	µg/g	10	10	10	11

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

MW20-8 SS6

F2 (C10 to C16)	CCME Tier 1	µg/g	11	10	10
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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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Moisture

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

MW20-8 SS6	GCM0472-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/27/2020
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Petroleum Hydrocarbons (F2-F4)

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

MW20-8 SS6	GCM0484-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/28/2020
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QC SUMMARY

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)	GCM0484-AUG20	µg/g	10	<10	ND	30	112	80	120	105	60	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.

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 --



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 - London: 657 Concession Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8000 Fax: 519-672-0391

Request for Laboratory Services and CHAIN OF CUSTODY

No:

Received By: Kim Sheard
 Received Date: 08/17/20 (mm/dd/yy)
 Received Time: 5:00 (hr.:min)

Received By (signature): [Signature]
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Cooling Agent Present: Yes No
 Temperature Upon Receipt (C): 7.7 7.7 7.7

LAB LIMS #: CA-14406-AUG20
ON hold - CA14765-AUG 20

REPORT INFORMATION

INVOICE INFORMATION

Company: DS Consultants

(same as Report Information)
 Company: DS Consultants

Contact: Kirstin Olsen

Contact: Patricia Deneen

Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Phone: 437 928 2794

Phone: 905 264 9393

Fax:

905 264 9393

Email: kirstin_olsen@dsconsultants.ca

Email: accounting@dsconsultants.ca

REGULATIONS

Regulation 153/04:
 Res/Pak: Soil Texture:
 Table 1 Ind/Com Coarse
 Table 2 Agr/Other Medium
 Table 3 Fine

Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PMCO MMER
 CCME Other:
 MSA

Sewer By-Law:
 Sanitary
 Storm
 Municipality:

RECORD OF SITE CONDITION (RSC) YES NO

SAMPLE IDENTIFICATION

1	2	3	4	5	6	7	8	9	10	11	12
MW20-1 SS1	MW20-1 SS3	MW20-1 SS4	MW20-1 SS6	MW20-2 SS1	MW20-2 SS3	MW20-2 SS4	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	MW20-5 SS3
Aug 17, 2020	Aug 13/17, 2020	August 19, 2020	Aug 13, 2020	Aug 17, 2020	Aug 13/17, 2020	Aug 13, 2020	Aug 13, 2020	Aug 17, 2020	Aug 17, 2020	Aug 17, 2020	Aug 17, 2020
10:00	3:45 / 10:15	4:00	4:10	10:30	10:45	4:30	4:45	11:00	11:15	11:30	3:00 / 1:45
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Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil

Observations/Comments/Special Instructions

Sampled By (NAME): Adan Deak

Signature: [Signature]

Date: 08/17/20

(mm/dd/yy)

Pink Copy - Client

Reinquished By (NAME): Adan Deak

Signature: [Signature]

Date: 08/17/20

(mm/dd/yy)

Yellow & White Copy - SGS

Note: Submission of samples to SGS is acknowledgment that you have been provided detection or 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 related 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. (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

ANALYSIS REQUESTED

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FINAL REPORT

CA14406-AUG20 R

20-186-100, Bronte Road

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	20-186-100, Bronte Road	SGS Reference	CA14406-AUG20
Order Number		Received	08/17/2020
Samples	soil (33)	Approved	08/25/2020
		Report Number	CA14406-AUG20 R
		Date Reported	08/25/2020

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: N/A

CrVI may have a low bias as the soluble spike showed poor recovery. all other spikes and qc fine

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - BTEX (SOIL)

Sample Number	9	10	13	15	19	20	21	22
Sample Name	MW20-1 SS3	MW20-1 SS4	MW20-2 SS3	MW20-2 SS7	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
BTEX												
Benzene	µg/g	0.02	0.02	0.17	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	15	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	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	29	37	38	39
Sample Name	MW20-8 SS6	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
BTEX								
Benzene	µg/g	0.02	0.02	0.17	< 0.02	< 0.02	< 0.02	< 0.02
Ethylbenzene	µg/g	0.05	0.05	15	< 0.05	< 0.05	< 0.05	< 0.05
Toluene	µg/g	0.05	0.2	6	< 0.05	< 0.05	< 0.05	< 0.05
Xylene (total)	µg/g	0.05	0.05	25	< 0.05	< 0.05	< 0.05	< 0.05
m/p-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05
o-xylene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - Hydrides (SOIL)

Sample Number	8	12	16	17	18	24	26	27
Sample Name	MW20-1 SS1	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	BH20-7 SS1	SDUP4
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - 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	2.1	5.0	14	14	6.1	8.3	7.6	8.7
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	28	31	32	33	34	35	36	40
Sample Name	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1	SDUP6
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - 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	6.3	3.5	6.4	7.8	4.7	5.4	5.9	3.8
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 - Metals and Inorganics (SOIL)

Sample Number	8	9	10	12	13	15	16	17
Sample Name	MW20-1 SS1	MW20-1 SS3	MW20-1 SS4	MW20-2 SS1	MW20-2 SS3	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			12.2	18.1	15.3	8.6	8.8	18.3	9.6	10.8
Barium	µg/g	0.1	220	390	26			64			41	62
Beryllium	µg/g	0.02	2.5	5	0.30			0.29			0.42	0.44



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	8	9	10	12	13	15	16	17
Sample Name	MW20-1 SS1	MW20-1 SS3	MW20-1 SS4	MW20-2 SS1	MW20-2 SS3	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics (continued)												
Boron	µg/g	1	36	120	2			7			2	3
Cadmium	µg/g	0.02	1.2	1.2	0.08			0.22			0.10	0.18
Chromium	µg/g	0.5	70	160	10.0			11			11	13
Cobalt	µg/g	0.01	21	22	4.3			4.6			6.0	6.4
Copper	µg/g	0.1	92	180	9.7			24			22	25
Lead	µg/g	0.1	120	120	11			16			55	74
Molybdenum	µg/g	0.1	2	6.9	0.3			1.2			0.4	0.4
Nickel	µg/g	0.5	82	130	8.4			8.5			11	13
Silver	µg/g	0.05	0.5	25	< 0.05			< 0.05			< 0.05	< 0.05
Thallium	µg/g	0.02	1	1	0.08			0.09			0.10	0.10
Uranium	µg/g	0.002	2.5	23	0.30			0.70			0.41	0.41
Vanadium	µg/g	3	86	86	16			14			19	20
Zinc	µg/g	0.7	290	340	31			89			43	56
Water Soluble Boron	µg/g	0.5		1.5	< 0.5			< 0.5			< 0.5	< 0.5



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	18	19	20	21	22	24	25	26
Sample Name	MW20-5 SS1	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2	BH20-6 SS1	SDUP3	BH20-7 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			10.4	10.6	11.2	10.2	8.3	10.3	10.7	13.3
Barium	µg/g	0.1	220	390	56					49		53
Beryllium	µg/g	0.02	2.5	5	0.39					0.39		0.46
Boron	µg/g	1	36	120	4					2		3
Cadmium	µg/g	0.02	1.2	1.2	0.15					0.13		0.10
Chromium	µg/g	0.5	70	160	13					12		13
Cobalt	µg/g	0.01	21	22	6.1					5.0		7.0
Copper	µg/g	0.1	92	180	25					22		22
Lead	µg/g	0.1	120	120	26					39		30
Molybdenum	µg/g	0.1	2	6.9	0.3					0.3		0.4
Nickel	µg/g	0.5	82	130	12					9.5		13
Silver	µg/g	0.05	0.5	25	< 0.05					< 0.05		< 0.05
Thallium	µg/g	0.02	1	1	0.08					0.09		0.11
Uranium	µg/g	0.002	2.5	23	0.38					0.43		0.50
Vanadium	µg/g	3	86	86	19					17		20
Zinc	µg/g	0.7	290	340	50					45		46
Water Soluble Boron	µg/g	0.5		1.5	< 0.5					< 0.5		< 0.5



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	27	28	29	31	32	33	34	35
Sample Name	SDUP4	MW20-8 SS1	MW20-8 SS6	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics												
Moisture Content	%	-			11.4	14.5	8.3	10.3	11.0	10.2	8.0	12.2
Barium	µg/g	0.1	220	390	58	47		25	79	77	44	43
Beryllium	µg/g	0.02	2.5	5	0.48	0.42		0.31	0.64	0.53	0.51	0.42
Boron	µg/g	1	36	120	3	3		2	4	3	3	3
Cadmium	µg/g	0.02	1.2	1.2	0.15	0.11		0.05	0.14	0.19	0.12	0.12
Chromium	µg/g	0.5	70	160	14	11		9.1	21	16	14	12
Cobalt	µg/g	0.01	21	22	7.1	5.6		4.4	7.8	6.8	7.5	5.9
Copper	µg/g	0.1	92	180	25	22		13	40	31	30	25
Lead	µg/g	0.1	120	120	37	36		13	24	35	18	22
Molybdenum	µg/g	0.1	2	6.9	0.4	0.3		0.2	0.2	0.2	0.4	0.3
Nickel	µg/g	0.5	82	130	14	10		7.4	19	16	15	13
Silver	µg/g	0.05	0.5	25	< 0.05	< 0.05		< 0.05	0.06	< 0.05	< 0.05	< 0.05
Thallium	µg/g	0.02	1	1	0.11	0.08		0.07	0.11	0.11	0.11	0.09
Uranium	µg/g	0.002	2.5	23	0.51	0.38		0.48	0.49	0.41	0.47	0.37
Vanadium	µg/g	3	86	86	21	18		16	26	23	22	18
Zinc	µg/g	0.7	290	340	50	44		21	61	54	46	39
Water Soluble Boron	µg/g	0.5		1.5	< 0.5	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	36	37	38	39	40
Sample Name	BH20-14 SS1	BH20-6 SS1	BH20-12 SS5	BH20-13 SS9	SDUP6
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
Metals and Inorganics									
Moisture Content	%	-			10.2	10.4	15.0	6.9	10.8
Barium	µg/g	0.1	220	390	49				27
Beryllium	µg/g	0.02	2.5	5	0.40				0.37
Boron	µg/g	1	36	120	3				2
Cadmium	µg/g	0.02	1.2	1.2	0.13				0.06
Chromium	µg/g	0.5	70	160	12				10
Cobalt	µg/g	0.01	21	22	4.8				4.9
Copper	µg/g	0.1	92	180	19				16
Lead	µg/g	0.1	120	120	32				14
Molybdenum	µg/g	0.1	2	6.9	0.2				0.2
Nickel	µg/g	0.5	82	130	11				8.7
Silver	µg/g	0.05	0.5	25	< 0.05				< 0.05
Thallium	µg/g	0.02	1	1	0.09				0.06
Uranium	µg/g	0.002	2.5	23	0.39				0.37
Vanadium	µg/g	3	86	86	16				17
Zinc	µg/g	0.7	290	340	38				24
Water Soluble Boron	µg/g	0.5		1.5	< 0.5				< 0.5



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Sample Number	12	16	17	18	24	25	26	27
Sample Name	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3	BH20-7 SS1	SDUP4
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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	0.05	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	0.21	0.28	0.09	< 0.02	< 0.02	< 0.02	< 0.02
DDE (total)	µg/g	0.05	0.05	0.33	< 0.05	0.21	0.28	0.09	< 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	0.04	0.08	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	1.4	< 0.05	< 0.05	0.08	< 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	0.01	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	0.05	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	0.01	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

Sample Number	12	16	17	18	24	25	26	27
Sample Name	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3	BH20-7 SS1	SDUP4
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - 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	0.01	0.014	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	0.071	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	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	28	31	32	33	34	35	36
Sample Name	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	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
alpha-Chlordane	µg/g	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
Chlordane (total)	µg/g	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
pp-DDD	µg/g	0.02			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDD (total)	µg/g	0.05	0.05	3.3	< 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
pp-DDE	µg/g	0.02			< 0.02	0.05	0.02	< 0.02	< 0.02	< 0.02	< 0.02
DDE (total)	µg/g	0.05	0.05	0.33	< 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



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Sample Number	28	31	32	33	34	35	36
Sample Name	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
pp-DDT	µg/g	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	
Dieldrin	µg/g	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	0.01	0.063	< 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	
Endosulfan II	µg/g	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	
Endrin	µg/g	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	0.05	0.15	< 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	
Hexachlorobenzene	µg/g	0.01	0.01	0.52	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	µg/g	0.01	0.01	0.014	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	0.071	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	0.13	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

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

Sample Number	8	12	16	17	18	24	26	27
Sample Name	MW20-1 SS1	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	BH20-7 SS1	SDUP4
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Other (ORP)												
Mercury	µg/g	0.05	0.27	1.8	< 0.05	< 0.05	0.07	0.10	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	5	0.2	0.3						
SAR Calcium	mg/L	0.09			9.7	28.9						
SAR Magnesium	mg/L	0.02			2.8	5.5						
SAR Sodium	mg/L	0.15			2.7	5.7						
Conductivity	mS/cm	0.002	0.57	0.7	0.07	0.24						
pH	pH Units	0.05			5.29	7.84						
Chromium VI	µg/g	0.2	0.66	10	< 0.2	< 0.2	0.3	0.3	< 0.2	0.2	0.5	0.3
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05	< 0.05						



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

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

Sample Number	28	31	32	33	34	35	36	40
Sample Name	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1	SDUP6
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Other (ORP)												
Mercury	µg/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	2.4	5	< 0.2							
SAR Calcium	mg/L	0.09			26.1							
SAR Magnesium	mg/L	0.02			2.0							
SAR Sodium	mg/L	0.15			2.8							
Conductivity	mS/cm	0.002	0.57	0.7	0.16							
pH	pH Units	0.05			7.48							
Chromium VI	µg/g	0.2	0.66	10	< 0.2	0.3	0.2	0.2	0.3	0.2	< 0.2	0.2
Free Cyanide	µg/g	0.05	0.051	0.051	< 0.05							



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CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - PAHs (SOIL)

Sample Number	9	13	21	22	29
Sample Name	MW20-1 SS3	MW20-2 SS3	MW20-5 SS8	SDUP2	MW20-8 SS6
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
PAHs									
Acenaphthene	µg/g	0.05	0.072	58	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	µg/g	0.05	0.093	0.17	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Anthracene	µg/g	0.05	0.16	0.74	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	µg/g	0.05	0.36	0.63	< 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
Benzo(b+j)fluoranthene	µg/g	0.05	0.47	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	µg/g	0.1	0.68	7.8	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(k)fluoranthene	µg/g	0.05	0.48	0.78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chrysene	µg/g	0.05	2.8	7.8	< 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
Fluoranthene	µg/g	0.05	0.56	0.69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	µg/g	0.05	0.12	69	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.1	0.23	0.48	< 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
2-Methylnaphthalene	µg/g	0.05			< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylnaphthalene, 2-(1-)	µg/g	0.05	0.59	3.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Naphthalene	µg/g	0.05	0.09	0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	µg/g	0.05	0.69	7.8	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Pyrene	µg/g	0.05	1	78	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - Pesticides Surrogate (SOIL)

Sample Number	12	16	17	18	24	25	26	27
Sample Name	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3	BH20-7 SS1	SDUP4
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-			99	110	108	108	110	105	107	107

PACKAGE: REG153 - Pesticides Surrogate (SOIL)

Sample Number	28	31	32	33	34	35	36
Sample Name	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result
Pesticides Surrogate											
Surr Decachlorobiphenyl	Surr Rec %	-			107	112	113	98	107	84	87

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	9	13	19	20	21	22	29	37
Sample Name	MW20-1 SS3	MW20-2 SS3	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2	MW20-8 SS6	BH20-6 SS1 VOC's
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
PHCs												
F1 (C6-C10)	µg/g	10	25	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	10	150	< 10	< 10	< 10	< 10	< 10	< 10	11	< 10
F3 (C16-C34)	µg/g	50	240	1300	< 50	< 50	< 50	< 50	< 50	< 50	50	< 50
F4 (C34-C50)	µg/g	50	120	5600	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES	YES	YES	YES	YES	YES	YES



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	38	39
Sample Name	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result
PHCs						
F1 (C6-C10)	µg/g	10	25	65	< 10	< 10
F1-BTEX (C6-C10)	µg/g	10			< 10	< 10
F2 (C10-C16)	µg/g	10	10	150	< 10	< 10
F3 (C16-C34)	µg/g	50	240	1300	< 50	< 50
F4 (C34-C50)	µg/g	50	120	5600	< 50	< 50
Chromatogram returned to baseline at nC50	Yes / No	-			YES	YES

PACKAGE: REG153 - SVOC Surrogates (SOIL)

Sample Number	9	13	21	22	29
Sample Name	MW20-1 SS3	MW20-2 SS3	MW20-5 SS8	SDUP2	MW20-8 SS6
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
SVOC Surrogates									
Surr Nitrobenzene-d5	Surr Rec %	-			72	70	68	62	63
Surr 2-Fluorobiphenyl	Surr Rec %	-			79	79	78	66	57
Surr 4-Terphenyl-d14	Surr Rec %	-			83	79	83	55	53
Surr 2-Fluorophenol	Surr Rec %	-			75	72	80	78	79
Surr Phenol-d6	Surr Rec %	-			81	76	81	79	80



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CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	10	15	37	38	39
Sample Name	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
THMs (VOC)									
Bromodichloromethane	µg/g	0.05	0.05	13	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Bromoform	µg/g	0.05	0.05	0.26	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	µg/g	0.05	0.05	9.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	10	12	15	16	17	18	24	25
Sample Name	MW20-1 SS4	MW20-2 SS1	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result
VOC Surrogates											
Surr 1,2-Dichloroethane-d4	Surr Rec %	-			98		98				
Surr 4-Bromofluorobenzene	Surr Rec %	-			93		93				
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-			91		91				
Surr TCMX	Surr Rec %	-				91		93	90	89	93 88



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CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	26	27	28	31	32	33	34	35
Sample Name	BH20-7 SS1	SDUP4	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	Result
VOC Surrogates												
Surr TCMX	Surr Rec %	-			90	91	92	96	96	87	95	76

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	36	37	38	39
Sample Name	BH20-14 SS1	BH20-6 SS1	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result
VOC Surrogates								
Surr 1,2-Dichloroethane-d4	Surr Rec %	-			98	98	98	
Surr 4-Bromofluorobenzene	Surr Rec %	-			94	93	94	
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-			91	91	91	
Surr TCMX	Surr Rec %	-			76			

PACKAGE: REG153 - VOCs (SOIL)

Sample Number	10	15	37	38	39
Sample Name	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs									
Acetone	µg/g	0.5	0.5	28	< 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
Carbon tetrachloride	µg/g	0.05	0.05	0.12	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

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

Sample Number	10	15	37	38	39
Sample Name	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs (continued)									
Chlorobenzene	µg/g	0.05	0.05	2.7	< 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
1,2-Dichlorobenzene	µg/g	0.05	0.05	4.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	0.05	6	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.05	0.097	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	0.05	25	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.05	11	< 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
1,1-Dichloroethylene	µg/g	0.05	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.05	0.75	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	0.05	30	< 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
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	0.083	< 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
n-Hexane	µg/g	0.05	0.05	34	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	0.5	44	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	0.5	4.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.05	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	0.05	0.96	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Styrene	µg/g	0.05	0.05	2.2	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	0.05	2.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14406-AUG20 R

Client: DS Consultants

Project: 20-186-100, Bronte Road

Project Manager: Kirstin Olsen

Samplers: Aidan Doak

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

Sample Number	10	15	37	38	39
Sample Name	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
Sample Matrix	soil	soil	soil	soil	soil

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

L2 = REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result
VOCs (continued)									
1,1,1,2-Tetrachloroethane	µg/g	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
1,1,1-Trichloroethane	µg/g	0.05	0.05	3.4	< 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
Trichloroethylene	µg/g	0.05	0.05	0.52	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	0.25	5.8	< 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

EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parkland/Industrial - UNDEFINED L1	REG153 / SOIL / FINE - TABLE 3 - Residential/Parkland - UNDEFINED L2
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MW20-3 SS1

DDE	EPA 3541/8270D	µg/g	0.21	0.05
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BH20-4 SS1

DDE	EPA 3541/8270D	µg/g	0.28	0.05
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MW20-5 SS1

DDE	EPA 3541/8270D	µg/g	0.09	0.05
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MW20-8 SS6

F2 (C10 to C16)	CCME Tier 1	µg/g	11	10
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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

MW20-1 SS1	EWL0240-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-2 SS1	EWL0240-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-8 SS1	EWL0240-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/19/2020

Cyanide by SFA

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

MW20-1 SS1	SKA5062-AUG20	8		08/17/2020	08/18/2020	08/19/2020		08/24/2020
MW20-2 SS1	SKA5062-AUG20	12		08/17/2020	08/18/2020	08/19/2020		08/24/2020
MW20-8 SS1	SKA5062-AUG20	28		08/17/2020	08/18/2020	08/19/2020		08/24/2020

Hexavalent Chromium by SFA

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

MW20-1 SS1	SKA5080-AUG20	8		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-2 SS1	SKA5080-AUG20	12		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-3 SS1	SKA5080-AUG20	16		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-4 SS1	SKA5080-AUG20	17		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-5 SS1	SKA5080-AUG20	18		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-6 SS1	SKA5080-AUG20	24		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-7 SS1	SKA5080-AUG20	26		08/17/2020	08/22/2020	08/24/2020		08/24/2020
SDUP4	SKA5080-AUG20	27		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-8 SS1	SKA5080-AUG20	28		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-9 SS1	SKA5080-AUG20	31		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-10 SS1	SKA5080-AUG20	32		08/17/2020	08/22/2020	08/24/2020		08/24/2020
SDUP5	SKA5080-AUG20	33		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-12 SS1	SKA5080-AUG20	34		08/17/2020	08/22/2020	08/24/2020		08/24/2020
MW20-13 SS1	SKA5080-AUG20	35		08/17/2020	08/22/2020	08/24/2020		08/24/2020
BH20-14 SS1	SKA5080-AUG20	36		08/17/2020	08/22/2020	08/24/2020		08/24/2020
SDUP6	SKA5080-AUG20	40		08/17/2020	08/22/2020	08/24/2020		08/24/2020

Mercury by CVAAS

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

MW20-1 SS1	EMS0113-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-2 SS1	EMS0113-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-3 SS1	EMS0113-AUG20	16		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-4 SS1	EMS0113-AUG20	17		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-5 SS1	EMS0113-AUG20	18		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-6 SS1	EMS0113-AUG20	24		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-7 SS1	EMS0113-AUG20	26		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP4	EMS0113-AUG20	27		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-8 SS1	EMS0113-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/20/2020

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

BH20-9 SS1	EMS0113-AUG20	31		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-10 SS1	EMS0113-AUG20	32		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP5	EMS0113-AUG20	33		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-12 SS1	EMS0113-AUG20	34		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-13 SS1	EMS0113-AUG20	35		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-14 SS1	EMS0113-AUG20	36		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP6	EMS0113-AUG20	40		08/17/2020	08/19/2020	08/19/2020		08/20/2020

Metals in aqueous samples - ICP-OES

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

MW20-1 SS1	ESG0059-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-2 SS1	ESG0059-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-8 SS1	ESG0059-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/19/2020

Metals in Soil - Aqua-regia/ICP-MS

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

MW20-1 SS1	EMS0113-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-2 SS1	EMS0113-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-3 SS1	EMS0113-AUG20	16		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-4 SS1	EMS0113-AUG20	17		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-5 SS1	EMS0113-AUG20	18		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-6 SS1	EMS0113-AUG20	24		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-7 SS1	EMS0113-AUG20	26		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP4	EMS0113-AUG20	27		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-8 SS1	EMS0113-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-9 SS1	EMS0113-AUG20	31		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-10 SS1	EMS0113-AUG20	32		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP5	EMS0113-AUG20	33		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-12 SS1	EMS0113-AUG20	34		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-13 SS1	EMS0113-AUG20	35		08/17/2020	08/19/2020	08/19/2020		08/20/2020
BH20-14 SS1	EMS0113-AUG20	36		08/17/2020	08/19/2020	08/19/2020		08/20/2020
SDUP6	EMS0113-AUG20	40		08/17/2020	08/19/2020	08/19/2020		08/20/2020

Moisture

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

MW20-1 SS1	GCM0303-AUG20	8		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-1 SS3	GCM0303-AUG20	9		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-1 SS4	GCM0303-AUG20	10		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-2 SS1	GCM0303-AUG20	12		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-2 SS3	GCM0303-AUG20	13		08/17/2020	08/21/2020	08/21/2020		08/20/2020

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

MW20-2 SS7	GCM0303-AUG20	15		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-3 SS1	GCM0303-AUG20	16		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-4 SS1	GCM0303-AUG20	17		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-5 SS1	GCM0303-AUG20	18		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-5 SS3	GCM0303-AUG20	19		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP1	GCM0303-AUG20	20		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-5 SS8	GCM0303-AUG20	21		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP2	GCM0303-AUG20	22		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-6 SS1	GCM0303-AUG20	24		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP3	GCM0303-AUG20	25		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-7 SS1	GCM0303-AUG20	26		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP4	GCM0303-AUG20	27		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-8 SS1	GCM0303-AUG20	28		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-8 SS6	GCM0303-AUG20	29		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-9 SS1	GCM0303-AUG20	31		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-10 SS1	GCM0303-AUG20	32		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP5	GCM0303-AUG20	33		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-12 SS1	GCM0303-AUG20	34		08/17/2020	08/21/2020	08/21/2020		08/20/2020
MW20-13 SS1	GCM0303-AUG20	35		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-14 SS1	GCM0303-AUG20	36		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-6 SS1 VOC's	GCM0303-AUG20	37		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-12 SS5	GCM0303-AUG20	38		08/17/2020	08/21/2020	08/21/2020		08/20/2020
BH20-13 SS9	GCM0303-AUG20	39		08/17/2020	08/21/2020	08/21/2020		08/20/2020
SDUP6	GCM0303-AUG20	40		08/17/2020	08/21/2020	08/21/2020		08/20/2020

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

MW20-2 SS1	GCM0378-AUG20	12		08/17/2020	08/22/2020	08/24/2020		08/25/2020
MW20-3 SS1	GCM0378-AUG20	16		08/17/2020	08/22/2020	08/24/2020		08/25/2020
BH20-4 SS1	GCM0378-AUG20	17		08/17/2020	08/22/2020	08/24/2020		08/25/2020
MW20-5 SS1	GCM0378-AUG20	18		08/17/2020	08/22/2020	08/24/2020		08/25/2020
BH20-6 SS1	GCM0378-AUG20	24		08/17/2020	08/22/2020	08/24/2020		08/25/2020
SDUP3	GCM0378-AUG20	25		08/17/2020	08/22/2020	08/24/2020		08/25/2020
BH20-7 SS1	GCM0378-AUG20	26		08/17/2020	08/22/2020	08/24/2020		08/25/2020
SDUP4	GCM0378-AUG20	27		08/17/2020	08/22/2020	08/24/2020		08/25/2020
MW20-8 SS1	GCM0378-AUG20	28		08/17/2020	08/22/2020	08/24/2020		08/25/2020
BH20-9 SS1	GCM0378-AUG20	31		08/17/2020	08/22/2020	08/24/2020		08/25/2020
MW20-10 SS1	GCM0378-AUG20	32		08/17/2020	08/22/2020	08/24/2020		08/25/2020
SDUP5	GCM0378-AUG20	33		08/17/2020	08/22/2020	08/24/2020		08/25/2020

HOLDING TIME SUMMARY

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

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

BH20-12 SS1	GCM0378-AUG20	34		08/17/2020	08/22/2020	08/24/2020		08/25/2020
MW20-13 SS1	GCM0378-AUG20	35		08/17/2020	08/22/2020	08/24/2020		08/25/2020
BH20-14 SS1	GCM0378-AUG20	36		08/17/2020	08/22/2020	08/24/2020		08/25/2020

Petroleum Hydrocarbons (F1)

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

MW20-1 SS3	GCM0291-AUG20	9		08/17/2020	08/21/2020	08/21/2020		08/21/2020
MW20-2 SS3	GCM0291-AUG20	13		08/17/2020	08/21/2020	08/21/2020		08/21/2020
MW20-5 SS3	GCM0291-AUG20	19		08/17/2020	08/21/2020	08/21/2020		08/21/2020
SDUP1	GCM0291-AUG20	20		08/17/2020	08/21/2020	08/21/2020		08/21/2020
MW20-5 SS8	GCM0291-AUG20	21		08/17/2020	08/21/2020	08/21/2020		08/21/2020
SDUP2	GCM0291-AUG20	22		08/17/2020	08/21/2020	08/21/2020		08/21/2020
MW20-8 SS6	GCM0291-AUG20	29		08/17/2020	08/21/2020	08/21/2020		08/21/2020
BH20-6 SS1 VOC's	GCM0291-AUG20	37		08/17/2020	08/21/2020	08/21/2020		08/21/2020
BH20-12 SS5	GCM0291-AUG20	38		08/17/2020	08/21/2020	08/21/2020		08/21/2020
BH20-13 SS9	GCM0291-AUG20	39		08/17/2020	08/21/2020	08/21/2020		08/21/2020

Petroleum Hydrocarbons (F2-F4)

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

MW20-1 SS3	GCM0365-AUG20	9		08/17/2020	08/21/2020	08/21/2020		08/25/2020
MW20-2 SS3	GCM0365-AUG20	13		08/17/2020	08/21/2020	08/21/2020		08/25/2020
MW20-5 SS3	GCM0365-AUG20	19		08/17/2020	08/21/2020	08/21/2020		08/25/2020
SDUP1	GCM0365-AUG20	20		08/17/2020	08/21/2020	08/21/2020		08/25/2020
MW20-5 SS8	GCM0365-AUG20	21		08/17/2020	08/21/2020	08/21/2020		08/25/2020
SDUP2	GCM0365-AUG20	22		08/17/2020	08/21/2020	08/21/2020		08/25/2020
MW20-8 SS6	GCM0365-AUG20	29		08/17/2020	08/21/2020	08/21/2020		08/25/2020
BH20-6 SS1 VOC's	GCM0365-AUG20	37		08/17/2020	08/21/2020	08/21/2020		08/25/2020
BH20-12 SS5	GCM0365-AUG20	38		08/17/2020	08/21/2020	08/21/2020		08/25/2020
BH20-13 SS9	GCM0365-AUG20	39		08/17/2020	08/21/2020	08/21/2020		08/25/2020

pH

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

MW20-1 SS1	ARD0067-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-2 SS1	ARD0067-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/20/2020
MW20-8 SS1	ARD0067-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/20/2020

Semi-Volatile Organics

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

MW20-1 SS3	GCM0333-AUG20	9		08/17/2020	08/20/2020	08/20/2020		08/21/2020
MW20-2 SS3	GCM0333-AUG20	13		08/17/2020	08/20/2020	08/20/2020		08/21/2020

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

MW20-5 SS8	GCM0333-AUG20	21		08/17/2020	08/20/2020	08/20/2020		08/21/2020
SDUP2	GCM0333-AUG20	22		08/17/2020	08/20/2020	08/20/2020		08/21/2020
MW20-8 SS6	GCM0333-AUG20	29		08/17/2020	08/20/2020	08/20/2020		08/21/2020

Sodium adsorption ratio (SAR)

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

MW20-1 SS1	ESG0059-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-2 SS1	ESG0059-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-8 SS1	ESG0059-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/19/2020

Volatile Organics

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

MW20-1 SS3	GCM0290-AUG20	9		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-1 SS4	GCM0290-AUG20	10		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-2 SS3	GCM0290-AUG20	13		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-2 SS7	GCM0290-AUG20	15		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-5 SS3	GCM0290-AUG20	19		08/17/2020	08/19/2020	08/19/2020		08/21/2020
SDUP1	GCM0290-AUG20	20		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-5 SS8	GCM0290-AUG20	21		08/17/2020	08/19/2020	08/19/2020		08/21/2020
SDUP2	GCM0290-AUG20	22		08/17/2020	08/19/2020	08/19/2020		08/21/2020
MW20-8 SS6	GCM0290-AUG20	29		08/17/2020	08/19/2020	08/19/2020		08/21/2020
BH20-6 SS1 VOC's	GCM0290-AUG20	37		08/17/2020	08/19/2020	08/19/2020		08/21/2020
BH20-12 SS5	GCM0290-AUG20	38		08/17/2020	08/19/2020	08/19/2020		08/21/2020
BH20-13 SS9	GCM0290-AUG20	39		08/17/2020	08/19/2020	08/19/2020		08/21/2020

Water Soluble Boron

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

MW20-1 SS1	ESG0056-AUG20	8		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-2 SS1	ESG0056-AUG20	12		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-3 SS1	ESG0056-AUG20	16		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-4 SS1	ESG0056-AUG20	17		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-5 SS1	ESG0056-AUG20	18		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-6 SS1	ESG0056-AUG20	24		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-7 SS1	ESG0056-AUG20	26		08/17/2020	08/19/2020	08/19/2020		08/19/2020
SDUP4	ESG0056-AUG20	27		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-8 SS1	ESG0056-AUG20	28		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-9 SS1	ESG0056-AUG20	31		08/17/2020	08/19/2020	08/19/2020		08/19/2020
MW20-10 SS1	ESG0056-AUG20	32		08/17/2020	08/19/2020	08/19/2020		08/19/2020
SDUP5	ESG0056-AUG20	33		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-12 SS1	ESG0056-AUG20	34		08/17/2020	08/19/2020	08/19/2020		08/19/2020

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

MW20-13 SS1	ESG0056-AUG20	35		08/17/2020	08/19/2020	08/19/2020		08/19/2020
BH20-14 SS1	ESG0056-AUG20	36		08/17/2020	08/19/2020	08/19/2020		08/19/2020
SDUP6	ESG0056-AUG20	40		08/17/2020	08/19/2020	08/19/2020		08/19/2020



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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	EWL0240-AUG20	mS/cm	0.002	<0.002	1	10	96	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	SKA5062-AUG20	µg/g	0.05	<0.05	ND	20	95	80	120	79	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	SKA5080-AUG20	ug/g	0.2	<0.2	ND	20	92	80	120	72	75	125

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	EMS0113-AUG20	µg/g	0.05	<0.05	ND	20	105	80	120	95	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	ESG0059-AUG20	mg/L	0.09	<0.09	18	20	102	80	120	99	70	130
SAR Magnesium	ESG0059-AUG20	mg/L	0.02	<0.02	4	20	96	80	120	98	70	130
SAR Sodium	ESG0059-AUG20	mg/L	0.15	<0.15	5	20	99	80	120	104	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	EMS0113-AUG20	ug/g	0.05	<0.05	ND	20	108	70	130	105	70	130
Arsenic	EMS0113-AUG20	µg/g	0.5	<0.5	2	20	104	70	130	85	70	130
Barium	EMS0113-AUG20	ug/g	0.1	<0.1	7	20	109	70	130	100	70	130
Beryllium	EMS0113-AUG20	µg/g	0.02	<0.02	6	20	102	70	130	103	70	130
Boron	EMS0113-AUG20	µg/g	1	<1	3	20	93	70	130	94	70	130
Cadmium	EMS0113-AUG20	µg/g	0.02	<0.02	ND	20	97	70	130	105	70	130
Cobalt	EMS0113-AUG20	µg/g	0.01	<0.01	6	20	97	70	130	112	70	130
Chromium	EMS0113-AUG20	µg/g	0.5	<0.5	0	20	99	70	130	115	70	130
Copper	EMS0113-AUG20	µg/g	0.1	<0.1	4	20	99	70	130	119	70	130
Molybdenum	EMS0113-AUG20	µg/g	0.1	<0.1	17	20	103	70	130	109	70	130
Nickel	EMS0113-AUG20	ug/g	0.5	<0.5	7	20	98	70	130	106	70	130
Lead	EMS0113-AUG20	µg/g	0.1	<0.1	10	20	103	70	130	99	70	130
Antimony	EMS0113-AUG20	µg/g	0.8	<0.8	ND	20	108	70	130	100	70	130
Selenium	EMS0113-AUG20	µg/g	0.7	<0.7	ND	20	102	70	130	98	70	130
Thallium	EMS0113-AUG20	µg/g	0.02	<0.02	7	20	106	70	130	103	70	130
Uranium	EMS0113-AUG20	µg/g	0.002	<0.002	0	20	100	70	130	93	70	130
Vanadium	EMS0113-AUG20	µg/g	3	<3	1	20	98	70	130	108	70	130
Zinc	EMS0113-AUG20	µg/g	0.7	<0.7	12	20	98	70	130	102	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
Hexachloroethane	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	91	50	140	88	50	140
Methoxychlor	GCM0378-AUG20	µg/g	0.05	< 0.05	ND	40	96	50	140	104	50	140
o,p-DDD	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	90	50	140
o,p-DDE	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	91	50	140
op-DDT	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	85	50	140
pp-DDD	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	91	50	140
pp-DDE	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	93	50	140
pp-DDT	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	95	50	140
Endrin	GCM0378-AUG20	µg/g	0.04	< 0.04	ND	40	94	50	140	101	50	140
Aldrin	GCM0378-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	90	50	140
alpha-Chlordane	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	91	50	140	89	50	140
Dieldrin	GCM0378-AUG20	µg/g	0.05	< 0.05	ND	40	92	50	140	94	50	140
Endosulfan I	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	90	50	140	107	50	140
Endosulfan II	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	87	50	140
gamma-BHC	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	92	50	140	92	50	140
gamma-Chlordane	GCM0378-AUG20	µg/g	0.02	< 0.02	ND	40	91	50	140	88	50	140
Heptachlor epoxide	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	91	50	140	89	50	140
Heptachlor	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	91	50	140
Hexachlorobenzene	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	92	50	140	89	50	140
Hexachlorobutadiene	GCM0378-AUG20	µg/g	0.01	< 0.01	ND	40	92	50	140	89	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)	GCM0291-AUG20	µg/g	10	<10	ND	30	106	80	120	94	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)	GCM0365-AUG20	µg/g	10	<10	0	30	101	80	120	105	60	140
F3 (C16-C34)	GCM0365-AUG20	µg/g	50	<50	0	30	101	80	120	105	60	140
F4 (C34-C50)	GCM0365-AUG20	µg/g	50	<50	2	30	101	80	120	105	60	140



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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	ARD0067-AUG20	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	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	84	50	140	86	50	140
2-Methylnaphthalene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	82	50	140	86	50	140
Acenaphthene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	79	50	140	81	50	140
Acenaphthylene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	80	50	140	82	50	140
Anthracene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	80	50	140
Benzo(a)anthracene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	78	50	140	80	50	140
Benzo(a)pyrene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	78	50	140	85	50	140
Benzo(b+j)fluoranthene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	77	50	140	81	50	140
Benzo(ghi)perylene	GCM0333-AUG20	µg/g	0.1	< 0.1	ND	40	76	50	140	78	50	140
Benzo(k)fluoranthene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	80	50	140	84	50	140
Chrysene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	81	50	140
Dibenzo(a,h)anthracene	GCM0333-AUG20	µg/g	0.06	< 0.06	ND	40	77	50	140	80	50	140
Fluoranthene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	82	50	140	82	50	140
Fluorene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	77	50	140	76	50	140
Indeno(1,2,3-cd)pyrene	GCM0333-AUG20	µg/g	0.1	< 0.1	ND	40	77	50	140	81	50	140
Naphthalene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	82	50	140
Phenanthrene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	80	50	140
Pyrene	GCM0333-AUG20	µg/g	0.05	< 0.05	ND	40	80	50	140	82	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	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	104	50	140
1,1,1-Trichloroethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	103	50	140
1,1,2,2-Tetrachloroethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	95	60	130	91	50	140
1,1,2-Trichloroethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	108	50	140
1,1-Dichloroethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	103	50	140
1,1-Dichloroethylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	94	60	130	99	50	140
1,2-Dichlorobenzene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	105	50	140
1,2-Dichloroethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	103	50	140
1,2-Dichloropropane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	104	50	140
1,3-Dichlorobenzene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	103	50	140
1,4-Dichlorobenzene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	104	50	140
Acetone	GCM0290-AUG20	µg/g	0.5	< 0.5	ND	50	99	50	140	114	50	140
Benzene	GCM0290-AUG20	µg/g	0.02	< 0.02	ND	50	97	60	130	105	50	140
Bromodichloromethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	105	50	140
Bromoform	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	94	60	130	103	50	140
Bromomethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	82	50	140	68	50	140
Carbon tetrachloride	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	101	50	140
Chlorobenzene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	102	50	140
Chloroform	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	103	50	140
cis-1,2-Dichloroethylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	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	GCM0290-AUG20	µg/g	0.03	< 0.03	ND	50	99	60	130	99	50	140
Dibromochloromethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	106	50	140
Dichlorodifluoromethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	60	50	140	52	50	140
Ethylbenzene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	104	50	140
Ethylenedibromide	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	108	50	140
n-Hexane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	79	50	140
m/p-xylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	103	50	140
Methyl ethyl ketone	GCM0290-AUG20	µg/g	0.5	< 0.5	ND	50	96	50	140	111	50	140
Methyl isobutyl ketone	GCM0290-AUG20	µg/g	0.5	< 0.5	ND	50	97	50	140	111	50	140
Methyl-t-butyl Ether	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	106	50	140
Methylene Chloride	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	101	50	140
o-xylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	103	50	140
Styrene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	105	50	140
Tetrachloroethylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	103	50	140
Toluene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	98	60	130	104	50	140
trans-1,2-Dichloroethylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	97	60	130	100	50	140
trans-1,3-dichloropropene	GCM0290-AUG20	µg/g	0.03	< 0.03	ND	50	102	60	130	103	50	140
Trichloroethylene	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	99	60	130	115	50	140
Trichlorofluoromethane	GCM0290-AUG20	µg/g	0.05	< 0.05	ND	50	90	50	140	89	50	140
Vinyl Chloride	GCM0290-AUG20	µg/g	0.02	< 0.02	ND	50	81	50	140	80	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	ESG0056-AUG20	µg/g	0.5	<0.5	15	20	101	80	120	98	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 --

Request for Laboratory Services and CHAIN OF CUSTODY

Environment, Health & Safety
 - Lakefield: 185 Concession St., Lakefield, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment
 - London: 657 Concession Court, London, ON, N6E 2S8 Phone: 519-872-4500 Toll Free: 877-848-8060 Fax: 519-872-0361

Laboratory Information Section - Lab use only

Received By: Kim Sheard
 Received Date: 08.17.20 (mm/dd/yy)
 Received Time: 15:00 (hr. : min)

Received By (signature): [Signature]
 Custody Seal Present: Yes No
 Custody Seal Intact: Yes No
 Cooling Agent Present: Yes No
 Temperature Upon Receipt (°C): 17.7 Type: ice

LAB LIMS #: CA-14406-AUG20

REPORT INFORMATION
 Company: DS Consultants
 Contact: Kirstin Olsen
 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8
 Phone: 437 928 2794
 Fax: _____
 Email: kirstin.olsen@dsconsultants.ca

INVOICE INFORMATION
 (same as Report Information)
 Company: DS Consultants
 Contact: Paviola Derveni
 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8
 Phone: 905 264 9393
 Email: accounting@dsconsultants.ca

REGULATIONS
Regulation 153/04:
 Table 1 Res/Park Soil Texture: Coarse Medium/ Fine
 Table 2 Ind/Com Agh/Other
 Table 3 Agh/Other
 Table _____
RECORD OF SITE CONDITION (RSC) YES NO

Quotation #: _____
 Project #: 20-186-100
 Site Location/ID: Bronte Road
TURNAROUND TIME (TAT) REQUIRED
 Regular TAT (5-7days)
 RUSH TAT (Additional Charges May Apply): 1 Day 2 Days 3 Days 4 Days
RUSH TAT (Additional Charges May Apply):
PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION

TATs are quoted in business days (exclude statutory holidays & weekends).
 Samples received after 6pm or on weekends. TAT begins next business day.

NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED													COMMENTS:								
					Field Filtered (Y/N)	Metals & Inorganics (Cd, Ni, water) Pb, Cu, Hg, Cr, Mn, Zn, Fe, Al, As, Se, Sb, Bi, Mo, Ni, Sn, Ag, Tl, U, Zn	ICP Metals only (S, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sn, Ag, Tl, U, Zn)	PAHs only	SVOCs (All Ind PAHs, Aroclor, CPs)	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only no BTEX	VOCs all ind BTEX	BTEX only	Pesticides Organochlorine or specify other	Pest	Other (please specify)		Water Characterization Pkg Specify pkg: General <input type="checkbox"/> Extended <input type="checkbox"/>	TC/CP Specify TC/CP tests <input type="checkbox"/> MDA <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> B(a)P <input type="checkbox"/> Aroclor <input type="checkbox"/> B(a)P <input type="checkbox"/> Aroclor <input type="checkbox"/>						
1 MW20-1 SS1	Aug 17, 2020	10:00	1	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
2 MW20-1 SS3	Aug 13/17, 2020	3:45/10:15	4	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
3 MW20-1 SS4	August 13, 2020	9:00	3	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
4 MW20-1 SS6	Aug 13, 2020	4:10	3	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
5 MW20-2 SS1	Aug 17, 2020	10:30	2	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
6 MW20-2 SS3	Aug 13/17, 2020	4:20/10:45	4	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
7 MW20-2 SS4	Aug 13, 2020	4:30	3	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
8 MW20-2 SS7	Aug 13, 2020	4:45	3	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
9 MW20-3 SS1	Aug 17, 2020	11:00	2	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
10 BH20-4 SS1	Aug 17, 2020	11:15	2	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
11 MW20-5 SS1	Aug 17, 2020	11:30	2	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
12 MW20-5 SS3	Aug 17, 2020	3:00/11:45	3	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Signature: [Signature] Date: 08.17.20 (mm/dd/yy)

Signature: [Signature] Date: 08.17.20 (mm/dd/yy)

Requisitioned by (NAME): Aidan Deak
 Note: Submission of samples to SGS is acknowledgment 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.

Date of Issue: 13 Oct 2019

Sampled By (NAME): Aidan Deak Signature: [Signature] Date: 08.17.20 (mm/dd/yy)

Requisitioned by (NAME): Aidan Deak Signature: [Signature] Date: 08.17.20 (mm/dd/yy)

Observations/Comments/Special Instructions:



FINAL REPORT

CA14584-AUG20 R1

20-186-100, 1300 Bronte Rd

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	20-186-100, 1300 Bronte Rd	SGS Reference	CA14584-AUG20
Order Number		Received	08/20/2020
Samples	Ground Water (8)	Approved	08/31/2020
		Report Number	CA14584-AUG20 R1
		Date Reported	08/31/2020

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: 6 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 016586

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - BTEX (WATER)

Sample Number	7	8	10	14
Sample Name	MW20-1	MW20-2	MW20-5	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result
BTEX							
Benzene	µg/L	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
Toluene	µg/L	0.5	0.8	< 0.5	< 0.5	< 0.5	< 0.5
Xylene (total)	µg/L	0.5	72	< 0.5	< 0.5	< 0.5	< 0.5
m/p-xylene	µg/L	0.5		< 0.5	< 0.5	< 0.5	< 0.5
o-xylene	µg/L	0.5		< 0.5	< 0.5	< 0.5	< 0.5

PACKAGE: REG153 - Hydrides (WATER)

Sample Number	7	8	9	11	12	13
Sample Name	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	20/08/2020	19/08/2020	19/08/2020	20/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result
Hydrides									
Antimony	µg/L	0.09	1.5	0.16	0.12	0.93	0.30	0.15	0.89
Arsenic	µg/L	0.2	13	< 0.2	0.2	1.5	0.6	0.2	1.4
Selenium	µg/L	0.04	5	0.05	< 0.04	0.47	0.26	0.06	0.50



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Metals and Inorganics (WATER)

Sample Number	7	8	9	11	12	13
Sample Name	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	20/08/2020	19/08/2020	19/08/2020	20/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result
Metals and Inorganics									
Barium	µg/L	0.02	610	56.3	50.1	183	73.0	53.0	179
Beryllium	µg/L	0.007	0.5	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007	< 0.007
Boron	µg/L	2	1700	34	67	87	49	32	81
Cadmium	µg/L	0.003	0.5	0.016	0.013	< 0.003	0.008	0.014	0.003
Chromium	µg/L	0.08	11	< 0.08	< 0.08	0.13	0.10	0.12	< 0.08
Cobalt	µg/L	0.004	3.8	0.162	0.322	0.213	0.201	0.178	0.208
Copper	µg/L	0.2	5	0.6	2.5	0.9	2.4	1.7	0.6
Lead	µg/L	0.01	1.9	< 0.01	0.04	0.03	0.07	0.03	0.02
Molybdenum	µg/L	0.04	23	0.40	1.18	6.70	3.26	0.32	6.16
Nickel	µg/L	0.1	14	1.2	1.9	1.0	1.2	1.8	0.7
Silver	µg/L	0.05	0.3	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	µg/L	0.005	0.5	0.009	0.022	0.032	0.007	0.007	0.033
Uranium	µg/L	0.002	8.9	0.827	0.531	1.67	1.36	0.791	1.59
Vanadium	µg/L	0.01	3.9	0.22	0.35	1.43	0.71	0.25	1.47
Zinc	µg/L	2	160	< 2	4	< 2	3	3	< 2



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Na (WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	7	8	9	11	12	13
Sample Name	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	20/08/2020	19/08/2020	19/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result
Na									
Sodium	µg/L	10	490000	20300	17500	15100	15100	22000	14100

PACKAGE: REG153 - Organochlorine Pests (OCs)

(WATER)

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Sample Number	9	11
Sample Name	MW20-3	MW20-10
Sample Matrix	Ground Water	Ground Water
Sample Date	20/08/2020	19/08/2020

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs)					
Aldrin	µg/L	0.01	0.01	< 0.01	< 0.01
a-chlordane	µg/L	0.01		< 0.01	< 0.01
g-chlordane	µg/L	0.01		< 0.01	< 0.01
Chlordane (total)	µg/L	0.02	0.06	< 0.02	< 0.02
o,p-DDD	µg/L	0.05		< 0.05	< 0.05
pp-DDD	µg/L	0.01		< 0.01	< 0.01
DDD (total)	µg/L	0.05	1.8	< 0.05	< 0.05
o,p-DDE	µg/L	0.01		< 0.01	< 0.01
pp-DDE	µg/L	0.01		< 0.01	< 0.01
DDE (total)	µg/L	0.01	10	< 0.01	< 0.01
op-DDT	µg/L	0.01		< 0.01	< 0.01
pp-DDT	µg/L	0.01		< 0.01	< 0.01
DDT (total)	µg/L	0.05	0.05	< 0.05	< 0.05
Dieldrin	µg/L	0.01	0.05	< 0.01	< 0.01



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Organochlorine Pests (OCs)

(WATER)

Sample Number 9 11

Sample Name MW20-3 MW20-10

Sample Matrix Ground Water Ground Water

Sample Date 20/08/2020 19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs) (continued)					
gamma-BHC	µg/L	0.01	0.01	< 0.01	< 0.01
Endosulfan I	µg/L	0.02		< 0.02	< 0.02
Endosulfan II	µg/L	0.05		< 0.05	< 0.05
Endosulfan (total)	µg/L	0.05	0.05	< 0.05	< 0.05
Endrin	µg/L	0.05	0.05	< 0.05	< 0.05
Heptachlor	µg/L	0.01	0.01	< 0.01	< 0.01
Heptachlor epoxide	µg/L	0.01	0.01	< 0.01	< 0.01
Hexachlorobenzene	µg/L	0.01	0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/L	0.01	0.01	< 0.01	< 0.01
Hexachloroethane	µg/L	0.01	0.01	< 0.01	< 0.01
Methoxychlor	µg/L	0.01	0.05	< 0.01	< 0.01



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - Other (ORP) (WATER)

Sample Number	7	8	9	11	12	13
Sample Name	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	20/08/2020	19/08/2020	19/08/2020	20/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result
Other (ORP)									
Mercury (total)	µg/L	0.01	0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
pH	No unit	0.05		7.07	7.39			7.12	
Chloride	µg/L	200	790000	17000	57000			17000	
Chromium VI	µg/L	0.2	25	< 0.2	0.3	0.2	0.3	< 0.2	< 0.2
Cyanide (free)	µg/L	2	5	< 2	< 2			< 2	

PACKAGE: REG153 - PAHs (WATER)

Sample Number	7	8	10
Sample Name	MW20-1	MW20-2	MW20-5
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
PAHs						
Acenaphthene	µg/L	0.1	4.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	µg/L	0.1	1	< 0.1	< 0.1	< 0.1
Anthracene	µg/L	0.1	0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	µg/L	0.1	0.2	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	µg/L	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
Benzo(ghi)perylene	µg/L	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
Chrysene	µg/L	0.1	0.1	< 0.1	< 0.1	< 0.1
Dibenzo(a,h)anthracene	µg/L	0.1	0.2	< 0.1	< 0.1	< 0.1
Fluoranthene	µg/L	0.1	0.4	< 0.1	< 0.1	< 0.1



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - PAHs (WATER)

Sample Number	7	8	10
Sample Name	MW20-1	MW20-2	MW20-5
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
PAHs (continued)						
Fluorene	µg/L	0.1	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
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	< 0.5	< 0.5	< 0.5
Naphthalene	µg/L	0.5	7	< 0.5	< 0.5	< 0.5
Phenanthrene	µg/L	0.1	0.1	< 0.1	< 0.1	< 0.1
Pyrene	µg/L	0.1	0.2	< 0.1	< 0.1	< 0.1

PACKAGE: REG153 - Pesticides Surrogate (WATER)

Sample Number	9	11
Sample Name	MW20-3	MW20-10
Sample Matrix	Ground Water	Ground Water
Sample Date	20/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result
Pesticides Surrogate					
Surr Decachlorobiphenyl	Surr Rec %	-		84	66



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - PHCs (WATER)

Sample Number	7	8	10
Sample Name	MW20-1	MW20-2	MW20-5
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

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	10
Sample Name	MW20-1	MW20-2	MW20-5
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
SVOC Surrogates						
Surr 2-Methylnaphthalene-D10	Surr Rec %	-		83	84	82
Surr Fluoranthene-D10	Surr Rec %	-		93	92	90
Surr 2-Fluorobiphenyl	Surr Rec %	-		94	89	98
Surr 4-Terphenyl-d14	Surr Rec %	-		98	99	95



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

PACKAGE: REG153 - THMs (VOC) (WATER)

Sample Number	7	8	14
Sample Name	MW20-1	MW20-2	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
THMs (VOC)						
Bromodichloromethane	µg/L	0.5	2	< 0.5	< 0.5	< 0.5
Bromoform	µg/L	0.5	5	< 0.5	< 0.5	< 0.5
Dibromochloromethane	µg/L	0.5	2	< 0.5	< 0.5	< 0.5

PACKAGE: REG153 - VOC Surrogates (WATER)

Sample Number	7	8	9	11	14
Sample Name	MW20-1	MW20-2	MW20-3	MW20-10	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	20/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result	Result	Result
VOC Surrogates								
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		100	98			99
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		90	90			92
Surr 4-Bromofluorobenzene	Surr Rec %	-		97	96			95
Surr TCMX	Surr Rec %	-				78	70	



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

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

Sample Number	7	8	14
Sample Name	MW20-1	MW20-2	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
VOCs						
Acetone	µg/L	30	2700	< 30	< 30	< 30
Bromomethane	µg/L	0.5	0.89	< 0.5	< 0.5	< 0.5
Carbon tetrachloride	µg/L	0.2	0.2	< 0.2	< 0.2	< 0.2
Chlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Chloroform	µg/L	0.5	2	< 0.5	< 0.5	< 0.5
1,2-Dichlorobenzene	µg/L	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
1,4-Dichlorobenzene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Dichlorodifluoromethane	µg/L	2.0	590	< 2	< 2	< 2
1,1-Dichloroethane	µg/L	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
1,1-Dichloroethylene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
trans-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5	< 0.5	< 0.5
cis-1,2-Dichloroethene	µg/L	0.5	1.6	< 0.5	< 0.5	< 0.5
1,2-Dichloropropane	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
cis-1,3-Dichloropropene	µg/L	0.5		< 0.5	< 0.5	< 0.5
trans-1,3-Dichloropropene	µg/L	0.5		< 0.5	< 0.5	< 0.5
1,3-dichloropropene (total)	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Ethylenedibromide	µg/L	0.2	0.2	< 0.2	< 0.2	< 0.2
n-Hexane	µg/L	1.0	5	< 1	< 1	< 1
Methyl ethyl ketone	µg/L	20	400	< 20	< 20	< 20
Methyl Isobutyl Ketone	µg/L	20	640	< 20	< 20	< 20
Methyl-t-butyl Ether	µg/L	2.0	15	< 2	< 2	< 2



FINAL REPORT

CA14584-AUG20 R1

Client: DS Consultants

Project: 20-186-100, 1300 Bronte Rd

Project Manager: Kirstin Olsen

Samplers: Meysam Jafari

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

Sample Number	7	8	14
Sample Name	MW20-1	MW20-2	Trip Blank
Sample Matrix	Ground Water	Ground Water	Ground Water
Sample Date	19/08/2020	19/08/2020	19/08/2020

L1 = REG153 / GROUND WATER / COARSE - TABLE 1 - All Types of Property Uses - UNDEFINED

Parameter	Units	RL	L1	Result	Result	Result
VOCs (continued)						
Methylene Chloride	µg/L	0.5	5	< 0.5	< 0.5	< 0.5
Styrene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Tetrachloroethylene (perchloroethylene)	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
1,1,1,2-Tetrachloroethane	µg/L	0.5	1.1	< 0.5	< 0.5	< 0.5
1,1,1,2,2-Tetrachloroethane	µg/L	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
1,1,2-Trichloroethane	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Trichloroethylene	µg/L	0.5	0.5	< 0.5	< 0.5	< 0.5
Trichlorofluoromethane	µg/L	5.0	150	< 5	< 5	< 5
Vinyl Chloride	µg/L	0.2	0.5	< 0.2	< 0.2	< 0.2

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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Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-[ENV]IC-LAK-AN-001

MW20-1	DIO0398-AUG20	7	08/19/2020	08/20/2020	08/24/2020	08/24/2020	09/16/2020	08/26/2020
MW20-2	DIO0364-AUG20	8	08/19/2020	08/20/2020	08/24/2020	08/24/2020	09/16/2020	08/26/2020
DUP-1	DIO0398-AUG20	12	08/19/2020	08/20/2020	08/24/2020	08/24/2020	09/16/2020	08/26/2020

Cyanide by SFA

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

MW20-1	SKA0229-AUG20	7	08/19/2020	08/20/2020	08/26/2020	08/26/2020	09/02/2020	08/26/2020
MW20-2	SKA0220-AUG20	8	08/19/2020	08/20/2020	08/26/2020	08/26/2020	09/02/2020	08/26/2020
DUP-1	SKA0229-AUG20	12	08/19/2020	08/20/2020	08/26/2020	08/26/2020	09/02/2020	08/26/2020

Hexavalent Chromium by SFA

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

MW20-1	SKA0218-AUG20	7	08/19/2020	08/20/2020	08/25/2020	08/25/2020	09/02/2020	08/26/2020
MW20-2	SKA0218-AUG20	8	08/19/2020	08/20/2020	08/25/2020	08/25/2020	09/02/2020	08/26/2020
MW20-3	SKA0218-AUG20	9	08/20/2020	08/20/2020	08/25/2020	08/25/2020	09/03/2020	08/26/2020
MW20-10	SKA0218-AUG20	11	08/19/2020	08/20/2020	08/25/2020	08/25/2020	09/02/2020	08/26/2020
DUP-1	SKA0218-AUG20	12	08/19/2020	08/20/2020	08/25/2020	08/25/2020	09/02/2020	08/26/2020
DUP-2	SKA0218-AUG20	13	08/20/2020	08/20/2020	08/25/2020	08/25/2020	09/03/2020	08/26/2020

Mercury by CVAAS

Method: SM 3112/SM 3112B | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-004

MW20-1	EHG0020-AUG20	7	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/16/2020	08/25/2020
MW20-2	EHG0020-AUG20	8	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/16/2020	08/25/2020
MW20-3	EHG0020-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/21/2020	09/17/2020	08/25/2020
MW20-10	EHG0020-AUG20	11	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/16/2020	08/25/2020
DUP-1	EHG0020-AUG20	12	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/16/2020	08/25/2020
DUP-2	EHG0020-AUG20	13	08/20/2020	08/20/2020	08/21/2020	08/21/2020	09/17/2020	08/25/2020

Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-[ENV]SPE-LAK-AN-006

MW20-1	EMS0148-AUG20	7	08/19/2020	08/20/2020	08/24/2020	08/24/2020	10/18/2020	08/25/2020
MW20-2	EMS0148-AUG20	8	08/19/2020	08/20/2020	08/24/2020	08/24/2020	10/18/2020	08/25/2020
MW20-3	EMS0148-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	10/19/2020	08/25/2020
MW20-10	EMS0148-AUG20	11	08/19/2020	08/20/2020	08/24/2020	08/24/2020	10/18/2020	08/25/2020
DUP-1	EMS0148-AUG20	12	08/19/2020	08/20/2020	08/24/2020	08/24/2020	10/18/2020	08/25/2020
DUP-2	EMS0148-AUG20	13	08/20/2020	08/20/2020	08/24/2020	08/24/2020	10/19/2020	08/25/2020

Pesticides

Method: EPA 3510C/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

MW20-3	GCM0436-AUG20	9	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020
MW20-10	GCM0436-AUG20	11	08/19/2020	08/20/2020	08/26/2020	08/26/2020	09/28/2020	08/27/2020

HOLDING TIME SUMMARY

Sample Name	QC Batch Reference	Sample Number	Sampled	Received	Extracted/Prepared	Analysed	Holding Time	Approved
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Petroleum Hydrocarbons (F1)

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

MW20-1	GCM0402-AUG20	7	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/25/2020
MW20-2	GCM0402-AUG20	8	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/25/2020
MW20-5	GCM0402-AUG20	10	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/25/2020

Petroleum Hydrocarbons (F2-F4)

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

MW20-1	GCM0381-AUG20	7	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/26/2020
MW20-2	GCM0381-AUG20	8	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/26/2020
MW20-5	GCM0381-AUG20	10	08/19/2020	08/20/2020	08/22/2020	08/25/2020	09/02/2020	08/26/2020

pH

Method: SM 4500 | Internal ref.: ME-CA-[ENV]EWL-LAK-AN-006

MW20-1	EWL0285-AUG20	7	08/19/2020	08/20/2020	08/21/2020	08/21/2020	08/26/2020	08/21/2020
MW20-2	EWL0285-AUG20	8	08/19/2020	08/20/2020	08/21/2020	08/21/2020	08/26/2020	08/21/2020
DUP-1	EWL0285-AUG20	12	08/19/2020	08/20/2020	08/21/2020	08/21/2020	08/26/2020	08/21/2020

Semi-Volatile Organics

Method: EPA 3510C/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-005

MW20-1	GCM0382-AUG20	7	08/19/2020	08/20/2020	08/22/2020	08/24/2020	09/02/2020	08/26/2020
MW20-2	GCM0382-AUG20	8	08/19/2020	08/20/2020	08/22/2020	08/24/2020	09/02/2020	08/26/2020
MW20-5	GCM0382-AUG20	10	08/19/2020	08/20/2020	08/22/2020	08/24/2020	09/02/2020	08/26/2020

Volatile Organics

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

MW20-1	GCM0408-AUG20	7	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/02/2020	08/27/2020
MW20-2	GCM0408-AUG20	8	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/02/2020	08/27/2020
MW20-5	GCM0369-AUG20	10	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/02/2020	08/25/2020
Trip Blank	GCM0408-AUG20	14	08/19/2020	08/20/2020	08/21/2020	08/21/2020	09/02/2020	08/27/2020



FINAL REPORT

CA14584-AUG20 R1

QC SUMMARY

Anions by IC

Method: EPA300/MA300-Ions1.3 | Internal ref.: ME-CA-IENVIIC-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
Chloride	DIO0364-AUG20	µg/L	200	<200	2	20	97	80	120	78	75	125
Chloride	DIO0398-AUG20	µg/L	200	<200	NV	20	95	80	120	NV	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)	SKA0220-AUG20	µg/L	2	<2	ND	10	101	90	110	96	75	125
Cyanide (free)	SKA0229-AUG20	µg/L	2	<2	ND	10	101	90	110	107	75	125

QC SUMMARY

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	SKA0218-AUG20	ug/L	0.2	<0.2	ND	20	99	80	120	90	75	125

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)	EHG0020-AUG20	ug/L	0.01	-0.01	ND	20	95	80	120	103	70	130



FINAL REPORT

CA14584-AUG20 R1

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	EMS0148-AUG20	ug/L	0.05	<0.05	ND	20	99	90	110	95	70	130
Arsenic	EMS0148-AUG20	µg/L	0.2	<0.2	9	20	99	90	110	102	70	130
Barium	EMS0148-AUG20	µg/L	0.02	<0.02	4	20	97	90	110	104	70	130
Beryllium	EMS0148-AUG20	µg/L	0.007	<0.007	ND	20	100	90	110	98	70	130
Boron	EMS0148-AUG20	µg/L	2	<2	20	20	103	90	110	NV	70	130
Cadmium	EMS0148-AUG20	µg/L	0.003	<0.003	ND	20	97	90	110	99	70	130
Cobalt	EMS0148-AUG20	µg/L	0.004	<0.004	NV	20	96	90	110	99	70	130
Chromium	EMS0148-AUG20	ug/L	0.08	<0.08	5	20	95	90	110	98	70	130
Copper	EMS0148-AUG20	ug/L	0.2	<0.2	5	20	96	90	110	103	70	130
Molybdenum	EMS0148-AUG20	ug/L	0.04	<0.04	ND	20	101	90	110	98	70	130
Sodium	EMS0148-AUG20	µg/L	10	< 10	3	20	108	90	110	118	70	130
Nickel	EMS0148-AUG20	µg/L	0.1	<0.1	8	20	98	90	110	98	70	130
Lead	EMS0148-AUG20	µg/L	0.01	<0.01	ND	20	99	90	110	97	70	130
Antimony	EMS0148-AUG20	ug/L	0.09	14	ND	20	96	90	110	111	70	130
Selenium	EMS0148-AUG20	µg/L	0.04	<0.04	ND	20	104	90	110	93	70	130
Thallium	EMS0148-AUG20	µg/L	0.005	<0.005	0	20	100	90	110	102	70	130
Uranium	EMS0148-AUG20	µg/L	0.002	<0.002	ND	20	100	90	110	99	70	130
Vanadium	EMS0148-AUG20	µg/L	0.01	<0.01	7	20	97	90	110	102	70	130
Zinc	EMS0148-AUG20	µg/L	2	<2	ND	20	95	90	110	113	70	130

QC SUMMARY

Pesticides

Method: EPA 3510C/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
pp-DDE	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	88	50	140	NSS	50	140
pp-DDT	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	90	50	140	NSS	50	140
a-chlordane	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	87	50	140	NSS	50	140
Aldrin	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	84	50	140	NSS	50	140
Dieldrin	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	89	50	140	NSS	50	140
Endosulfan I	GCM0436-AUG20	ug/L	0.02	< 0.02	NSS	30	87	50	140	NSS	50	140
Endosulfan II	GCM0436-AUG20	ug/L	0.05	< 0.05	NSS	30	87	50	140	NSS	50	140
Endrin	GCM0436-AUG20	ug/L	0.05	< 0.05	NSS	30	91	50	140	NSS	50	140
g-chlordane	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	87	50	140	NSS	50	140
gamma-BHC	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	87	50	140	NSS	50	140
Heptachlor	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	84	50	140	NSS	50	140
Heptachlor epoxide	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	87	50	140	NSS	50	140
Hexachlorobenzene	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	82	50	140	NSS	50	140
Hexachlorobutadiene	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	77	50	140	NSS	50	140
Hexachloroethane	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	76	50	140	NSS	50	140
Methoxychlor	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	96	50	140	NSS	50	140
o,p-DDD	GCM0436-AUG20	µg/L	0.05	< 0.05	NSS	30	89	50	140	NSS	50	140
o,p-DDE	GCM0436-AUG20	ug/L	0.01	< 0.01	NSS	30	88	50	140	NSS	50	140
op-DDT	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	89	50	140	NSS	50	140
pp-DDD	GCM0436-AUG20	µg/L	0.01	< 0.01	NSS	30	89	50	140	NSS	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)	GCM0402-AUG20	µg/L	25	<25	ND	30	100	60	140	91	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)	GCM0381-AUG20	µg/L	100	<100	ND	30	84	60	140	87	60	140
F3 (C16-C34)	GCM0381-AUG20	µg/L	200	<200	ND	30	84	60	140	87	60	140
F4 (C34-C50)	GCM0381-AUG20	µg/L	200	<200	ND	30	84	60	140	87	60	140

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	EWL0285-AUG20	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
Benzo(a)pyrene	GCM0516-AUG20	ug/L	0.01	< 0.01	ND	30	100	50	140	NV	50	140
1-Methylnaphthalene	GCM0382-AUG20	µg/L	0.5	< 0.5	ND	30	98	50	140	104	50	140
2-Methylnaphthalene	GCM0382-AUG20	µg/L	0.5	< 0.5	ND	30	98	50	140	103	50	140
Acenaphthene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	97	50	140	103	50	140
Acenaphthylene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	99	50	140	105	50	140
Anthracene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	86	50	140	92	50	140
Benzo(a)anthracene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	90	50	140	93	50	140
Benzo(b+j)fluoranthene	GCM0382-AUG20	ug/L	0.1	< 0.1	ND	30	90	50	140	91	50	140
Benzo(ghi)perylene	GCM0382-AUG20	µg/L	0.2	< 0.2	ND	30	84	50	140	83	50	140
Benzo(k)fluoranthene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	90	50	140	92	50	140
Chrysene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	88	50	140	92	50	140
Dibenzo(a,h)anthracene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	82	50	140	79	50	140
Fluoranthene	GCM0382-AUG20	ug/L	0.1	< 0.1	ND	30	86	50	140	90	50	140
Fluorene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	89	50	140	94	50	140
Indeno(1,2,3-cd)pyrene	GCM0382-AUG20	µg/L	0.2	< 0.2	ND	30	82	50	140	81	50	140
Naphthalene	GCM0382-AUG20	µg/L	0.5	< 0.5	ND	30	100	50	140	105	50	140
Phenanthrene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	88	50	140	93	50	140
Pyrene	GCM0382-AUG20	µg/L	0.1	< 0.1	ND	30	84	50	140	89	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	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
1,1,1-Trichloroethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	103	60	130	NV	50	140
1,1,2,2-Tetrachloroethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	99	60	130	NV	50	140
1,1,2-Trichloroethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
1,1-Dichloroethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
1,1-Dichloroethylene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	109	60	130	NV	50	140
1,2-Dichlorobenzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
1,2-Dichloroethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	100	60	130	NV	50	140
1,2-Dichloropropane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	99	60	130	NV	50	140
1,3-Dichlorobenzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
1,4-Dichlorobenzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	100	60	130	NV	50	140
Acetone	GCM0369-AUG20	µg/L	30	<30	ND	30	102	60	130	NV	50	140
Benzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Bromodichloromethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	100	60	130	NV	50	140
Bromoform	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	97	60	130	NV	50	140
Bromomethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	50	140	NV	50	140
Carbon tetrachloride	GCM0369-AUG20	µg/L	0.2	<0.2	ND	30	102	60	130	NV	50	140
Chlorobenzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Chloroform	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
cis-1,2-Dichloroethene	GCM0369-AUG20	µg/L	0.5	<0.5	2	30	101	60	130	NV	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	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	100	60	130	NV	50	140
Dibromochloromethane	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	100	60	130	NV	50	140
Dichlorodifluoromethane	GCM0369-AUG20	µg/L	2.0	<2	ND	30	104	50	140	NV	50	140
Ethylbenzene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Ethylenedibromide	GCM0369-AUG20	µg/L	0.2	<0.2	ND	30	101	60	130	NV	50	140
n-Hexane	GCM0369-AUG20	µg/L	1.0	<1	ND	30	111	60	130	NV	50	140
m/p-xylene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Methyl ethyl ketone	GCM0369-AUG20	ug/L	20	<20	ND	30	97	60	130	NV	50	140
Methyl Isobutyl Ketone	GCM0369-AUG20	µg/L	20	<20	ND	30	93	50	140	NV	50	140
Methyl-t-butyl Ether	GCM0369-AUG20	µg/L	2.0	<2	ND	30	98	60	130	NV	50	140
Methylene Chloride	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	104	60	130	NV	50	140
o-xylene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Styrene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
Toluene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	101	60	130	NV	50	140
trans-1,2-Dichloroethene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	104	60	130	NV	50	140
trans-1,3-Dichloropropene	GCM0369-AUG20	µg/L	0.5	<0.5	ND	30	102	60	130	NV	50	140
Trichloroethylene	GCM0369-AUG20	µg/L	0.5	<0.5	9	30	101	60	130	NV	50	140
Trichlorofluoromethane	GCM0369-AUG20	µg/L	5.0	<5	ND	30	101	50	140	NV	50	140
Vinyl Chloride	GCM0369-AUG20	µg/L	0.2	<0.2	ND	30	99	60	130	NV	50	140
Tetrachloroethylene (perchloroethylene)	GCM0408-AUG20	µg/L	0.5	<0.5	ND	30	96	60	130	98	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.

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-- End of Analytical Report --



FINAL REPORT

CA14587-AUG20 R1

20-186-100

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	20-186-100	SGS Reference	CA14587-AUG20
Order Number		Received	08/20/2020
Samples	soil (40)	Approved	08/31/2020
		Report Number	CA14587-AUG20 R1
		Date Reported	08/31/2020

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: 9 degrees C

Cooling Agent Present: Yes

Custody Seal Present: Yes

Chain of Custody Number: 016587/014094/95/96

Trichlorofluoromethane Matrix Spike; Recovery is outside control limits. The overall quality control for this analysis has been assessed and meets method acceptability criteria.

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	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	< 0.05	< 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	< 0.05
o-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05

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

Sample Number	8	9	10	11	16	17	18	19
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	D3-S3	D4-S3	D6-S3	D1-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Hydrides											
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	4.6	4.7	6.6	5.8	7.2	18	7.3	20
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	20	21	22	23	24	25	26	27
Sample Name	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Hydrides												
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	
Arsenic	µg/g	0.5	18	34	9.3	13	21	24	4.0	30	20	
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	

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

Sample Number	44
Sample Name	SDUP7
Sample Matrix	soil
Sample Date	20/08/2020

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

Parameter	Units	RL	L1	Result
Hydrides				
Antimony	µg/g	0.8	1.3	< 0.8
Arsenic	µg/g	0.5	18	20
Selenium	µg/g	0.7	1.5	< 0.7

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	8	9	10	11	12	13	14	15
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics											
Moisture Content	%	-		12.5	9.8	12.8	10.6	11.6	9.6	11.2	12.6
Barium	µg/g	0.1	220	86	86	48	80				
Beryllium	µg/g	0.02	2.5	0.65	0.64	0.40	0.58				
Boron	µg/g	1	36	7	8	6	8				



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	8	9	10	11	12	13	14	15
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics (continued)												
Cadmium	µg/g	0.02	1.2	0.25	0.28	0.11	0.16					
Chromium	µg/g	0.5	70	22	24	13	19					
Cobalt	µg/g	0.01	21	11	11	6.5	11					
Copper	µg/g	0.1	92	30	29	25	29					
Lead	µg/g	0.1	120	26	24	24	23					
Molybdenum	µg/g	0.1	2	0.5	0.5	0.3	0.5					
Nickel	µg/g	0.5	82	22	22	14	22					
Silver	µg/g	0.05	0.5	0.05	0.05	< 0.05	< 0.05					
Thallium	µg/g	0.02	1	0.14	0.15	0.09	0.15					
Uranium	µg/g	0.002	2.5	0.58	0.57	0.40	0.50					
Vanadium	µg/g	3	86	28	28	19	25					
Zinc	µg/g	0.7	290	89	95	45	72					
Water Soluble Boron	µg/g	0.5		< 0.5	< 0.5	< 0.5	< 0.5					



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	16	17	18	19	20	21	22	23
Sample Name	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		9.5	11.9	12.4	14.9	3.7	21.0	15.3	11.0	
Barium	µg/g	0.1	220	40	70	56	47	54	48	46	49	
Beryllium	µg/g	0.02	2.5	0.49	0.69	0.42	0.35	0.38	0.36	0.37	0.37	
Boron	µg/g	1	36	3	6	2	3	3	4	4	2	
Cadmium	µg/g	0.02	1.2	0.11	0.26	0.09	0.17	0.18	0.19	0.14	0.15	
Chromium	µg/g	0.5	70	15	22	13	11	12	12	11	12	
Cobalt	µg/g	0.01	21	7.5	11	6.6	4.9	5.4	5.5	5.0	5.3	
Copper	µg/g	0.1	92	29	46	26	30	29	20	25	22	
Lead	µg/g	0.1	120	24	64	23	120	150	50	62	110	
Molybdenum	µg/g	0.1	2	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	
Nickel	µg/g	0.5	82	16	27	13	10	11	11	11	11	
Silver	µg/g	0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Thallium	µg/g	0.02	1	0.10	0.13	0.10	0.09	0.11	0.11	0.10	0.10	
Uranium	µg/g	0.002	2.5	0.42	0.53	0.36	0.46	0.47	0.54	0.45	0.39	
Vanadium	µg/g	3	86	22	27	20	17	19	18	17	18	
Zinc	µg/g	0.7	290	45	72	50	61	65	63	55	61	



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Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	24	25	26	27	28	29	30	32
Sample Name	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		15.0	13.8	16.4	15.6	13.6	12.0	13.6	12.5	
Barium	µg/g	0.1	220	49	53	48	57					
Beryllium	µg/g	0.02	2.5	0.34	0.37	0.30	0.41					
Boron	µg/g	1	36	3	3	2	3					
Cadmium	µg/g	0.02	1.2	0.18	0.20	0.18	0.16					
Chromium	µg/g	0.5	70	11	11	9.6	13					
Cobalt	µg/g	0.01	21	4.7	4.9	4.3	6.0					
Copper	µg/g	0.1	92	21	21	26	24					
Lead	µg/g	0.1	120	120	19	150	89					
Molybdenum	µg/g	0.1	2	0.4	0.4	0.4	0.4					
Nickel	µg/g	0.5	82	9.6	11	8.9	12					
Silver	µg/g	0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05					
Thallium	µg/g	0.02	1	0.10	0.10	0.10	0.11					
Uranium	µg/g	0.002	2.5	0.42	0.45	0.45	0.39					
Vanadium	µg/g	3	86	16	17	15	18					
Zinc	µg/g	0.7	290	57	46	56	63					



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Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	33	34	35	36	37	38	39	40
Sample Name	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		14.4	14.2	14.6	13.7	14.0	16.3	15.8	13.6	

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	41	42	43	44	45	46	47	48
Sample Name	D27-S1	D29-S1	D30-S1	SDUP7	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		16.1	13.5	13.1		16.0	15.9	14.8	13.5	
Barium	µg/g	0.1	220				58					
Beryllium	µg/g	0.02	2.5				0.41					
Boron	µg/g	1	36				3					
Cadmium	µg/g	0.02	1.2				0.20					
Chromium	µg/g	0.5	70				12					
Cobalt	µg/g	0.01	21				6.0					
Copper	µg/g	0.1	92				24					
Lead	µg/g	0.1	120				88					
Molybdenum	µg/g	0.1	2				0.4					
Nickel	µg/g	0.5	82				12					
Silver	µg/g	0.05	0.5				< 0.05					
Thallium	µg/g	0.02	1				0.11					
Uranium	µg/g	0.002	2.5				0.39					
Vanadium	µg/g	3	86				18					



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

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

Sample Number	41	42	43	44	45	46	47	48
Sample Name	D27-S1	D29-S1	D30-S1	SDUP7	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics (continued)											
Zinc	µg/g	0.7	290					62			

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	13	14	15	16	17	18	19	20
Sample Name	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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
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
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	0.05	< 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	0.04	0.17	0.06	0.45	0.45
DDE (total)	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.17	0.06	0.45	0.45
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	0.05	< 0.02	0.12	0.11
DDT (total)	µg/g	0.05	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.12	0.11
Dieldrin	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	13	14	15	16	17	18	19	20
Sample Name	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	21	22	23	24	25	26	27	28
Sample Name	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.03	0.03	< 0.02	< 0.02	< 0.02	< 0.02	
DDD (total)	µg/g	0.05	0.05	< 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		0.31	0.39	0.54	0.44	< 0.02	0.48	0.31	< 0.02	
DDE (total)	µg/g	0.05	0.05	0.31	0.39	0.54	0.44	< 0.05	0.48	0.31	< 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		0.06	0.06	0.14	0.08	< 0.02	0.14	0.08	< 0.02	
DDT (total)	µg/g	0.05	1.4	0.06	0.06	0.14	0.08	< 0.05	0.14	0.08	< 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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	21	22	23	24	25	26	27	28
Sample Name	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.05	< 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		0.10	0.05	0.04	0.14	< 0.02	< 0.02	0.06	< 0.02	
DDE (total)	µg/g	0.05	0.05	0.10	< 0.05	< 0.05	0.14	< 0.05	< 0.05	0.06	< 0.05	
op-DDT	µg/g	0.02		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
pp-DDT	µg/g	0.02		0.03	0.03	< 0.02	0.03	< 0.02	< 0.02	0.02	< 0.02	
DDT (total)	µg/g	0.05	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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.05	< 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	0.04	< 0.02	< 0.02	
DDE (total)	µg/g	0.05	0.05	< 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	< 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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)											
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	47	48
Sample Name	SDUP10	SDUP11
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs)					
Aldrin	µg/g	0.05	0.05	< 0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02	< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02	< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02	< 0.02
pp-DDD	µg/g	0.02		< 0.02	< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02	< 0.02
pp-DDE	µg/g	0.02		< 0.02	0.02
DDE (total)	µg/g	0.05	0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02	< 0.02



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

Sample Number 47 48

Sample Name SDUP10 SDUP11

Sample Matrix soil soil

Sample Date 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs) (continued)					
pp-DDT	µg/g	0.02		< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01	< 0.01
Endosulfan I	µg/g	0.02		< 0.02	< 0.02
Endosulfan II	µg/g	0.02		< 0.02	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.01	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
Other (ORP)							
Mercury	µg/g	0.05	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	< 0.2	0.3	0.2	< 0.2
SAR Calcium	mg/L	0.09		30.8	28.4	22.0	27.8
SAR Magnesium	mg/L	0.02		3.8	4.7	3.7	3.6
SAR Sodium	mg/L	0.15		2.8	6.4	4.2	1.4
Conductivity	mS/cm	0.002	0.57	0.18	0.18	0.16	0.16
pH	pH Units	0.05		7.49	7.61	7.70	7.73
Chromium VI	µg/g	0.2	0.66	< 0.2	0.3	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

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



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number 12
 Sample Name TR1-S1
 Sample Matrix soil
 Sample Date 20/08/2020

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

Parameter	Units	RL	L1	Result
PCBs				
Polychlorinated Biphenyls (PCBs) - Total	µg/g	0.3	0.3	< 0.3

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 13 14 15 16 17 18 19 20
 Sample Name D2-S3 D7-S3 D9-S3 D3-S3 D4-S3 D6-S3 D1-S1 D5-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-		109	109	104	104	112	104	104	106	

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 21 22 23 24 25 26 27 28
 Sample Name D8-S1 D10-S1 D18-S1 D12-S1 D13-S1 D14-S1 D16-S1 D11-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Pesticides Surrogate											
Surr Decachlorobiphenyl	Surr Rec %	-		105	106	111	107	106	100	101	105

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 29 30 32 33 34 35 36 37
 Sample Name D15-S1 D17-S1 D19-S1 D20-S1 D21-S1 D22-S1 D23-S1 D24-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Pesticides Surrogate											



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate (continued)												
Surr Decachlorobiphenyl	Surr Rec %	-		105	110	109	104	104	105	80	101	

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-		103	102	92	97	98	103	77	93	

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	47	48
Sample Name	SDUP10	SDUP11
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
Pesticides Surrogate					
Surr Decachlorobiphenyl	Surr Rec %	-		94	96

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

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result
PHCs						



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result
PHCs (continued)						
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	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
SVOC Surrogates							
Surr Nitrobenzene-d5	Surr Rec %	-		94	88	99	93
Surr 2-Fluorobiphenyl	Surr Rec %	-		86	87	90	82
Surr 4-Terphenyl-d14	Surr Rec %	-		89	96	98	95
Surr 2-Fluorophenol	Surr Rec %	-		80	76	81	78
Surr Phenol-d6	Surr Rec %	-		85	83	86	82
Surr 2,4,6-Tribromophenol	Surr Rec %	-		84	85	94	89



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

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

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	8	10	13	14	15	16	17	18
Sample Name	SB1-S1	SB3-S1	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates											
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		94	94						
Surr 4-Bromofluorobenzene	Surr Rec %	-		91	92						
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		82	82						
Surr TCMX	Surr Rec %	-				97	95	93	95	100	89



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Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	19	20	21	22	23	24	25	26
Sample Name	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		89	91	90	90	97	91	90	82	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	27	28	29	30	32	33	34	35
Sample Name	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		80	88	88	87	92	85	85	86	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	36	37	38	39	40	41	42	43
Sample Name	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		70	83	83	81	76	79	93	83	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	45	46	47	48
Sample Name	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
VOC Surrogates							



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

Sample Number	45	46	47	48
Sample Name	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
VOC Surrogates (continued)							
Surr TCMX	Surr Rec %	-		82	88	87	99

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

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
VOCs					
Acetone	µg/g	0.5	0.5	< 0.5	< 0.5
Bromomethane	µg/g	0.05	0.05	< 0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.05	< 0.05	< 0.05
Chlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
Chloroform	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,1-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
VOCs (continued)					
cis-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03
trans-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.05	< 0.05	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	< 0.05	< 0.05
n-Hexane	µg/g	0.05	0.05	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.05	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	0.05	< 0.05	< 0.05
Styrene	µg/g	0.05	0.05	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.05	< 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	0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	0.25	< 0.05	< 0.05
Vinyl Chloride	µg/g	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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D4-S3

DDE	EPA 3541/8270D	µg/g	0.17	0.05
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D6-S3

DDE	EPA 3541/8270D	µg/g	0.06	0.05
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D1-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
DDE	EPA 3541/8270D	µg/g	0.45	0.05

D5-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	34	18
Lead	EPA 3050/EPA 200.8	µg/g	150	120
DDE	EPA 3541/8270D	µg/g	0.45	0.05

D8-S1

DDE	EPA 3541/8270D	µg/g	0.31	0.05
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D10-S1

DDE	EPA 3541/8270D	µg/g	0.39	0.05
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D18-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	21	18
DDE	EPA 3541/8270D	µg/g	0.54	0.05

D12-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	24	18
DDE	EPA 3541/8270D	µg/g	0.44	0.05

D14-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	30	18
Lead	EPA 3050/EPA 200.8	µg/g	150	120
DDE	EPA 3541/8270D	µg/g	0.48	0.05

D16-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
DDE	EPA 3541/8270D	µg/g	0.31	0.05

D15-S1

DDE	EPA 3541/8270D	µg/g	0.10	0.05
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EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
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D20-S1

DDE	EPA 3541/8270D	µg/g	0.14	0.05
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D23-S1

DDE	EPA 3541/8270D	µg/g	0.06	0.05
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SDUP7

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
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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

SB1-S1	EWL0312-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB2-S1	EWL0312-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB3-S1	EWL0312-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB4-S1	EWL0312-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020

Cyanide by SFA

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

SB1-S1	SKA5067-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB2-S1	SKA5067-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB3-S1	SKA5067-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB4-S1	SKA5067-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020

Hexavalent Chromium by SFA

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

SB1-S1	SKA5086-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB2-S1	SKA5086-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB3-S1	SKA5086-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB4-S1	SKA5086-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020

Mercury by CVAAS

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

SB1-S1	EMS0140-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB2-S1	EMS0140-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB3-S1	EMS0140-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB4-S1	EMS0140-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020

Metals in aqueous samples - ICP-OES

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

SB1-S1	ESG0070-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB2-S1	ESG0070-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB3-S1	ESG0070-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB4-S1	ESG0070-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020

Metals in Soil - Aqua-regia/ICP-MS

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

SB1-S1	EMS0140-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB2-S1	EMS0140-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB3-S1	EMS0140-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB4-S1	EMS0140-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D3-S3	EMS0140-AUG20	16	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D4-S3	EMS0140-AUG20	17	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020

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 (continued)

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

D6-S3	EMS0140-AUG20	18	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D1-S1	EMS0140-AUG20	19	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D5-S1	EMS0140-AUG20	20	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D8-S1	EMS0140-AUG20	21	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D10-S1	EMS0140-AUG20	22	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D18-S1	EMS0140-AUG20	23	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D12-S1	EMS0140-AUG20	24	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D13-S1	EMS0140-AUG20	25	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D14-S1	EMS0140-AUG20	26	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D16-S1	EMS0140-AUG20	27	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SDUP7	EMS0140-AUG20	44	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020

Moisture

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

SB1-S1	GCM0371-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB2-S1	GCM0371-AUG20	9	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB3-S1	GCM0371-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB4-S1	GCM0371-AUG20	11	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
TR1-S1	GCM0405-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D2-S3	GCM0371-AUG20	13	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D7-S3	GCM0371-AUG20	14	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D9-S3	GCM0371-AUG20	15	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D3-S3	GCM0371-AUG20	16	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D4-S3	GCM0371-AUG20	17	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D6-S3	GCM0371-AUG20	18	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D1-S1	GCM0371-AUG20	19	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D5-S1	GCM0371-AUG20	20	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D8-S1	GCM0371-AUG20	21	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D10-S1	GCM0371-AUG20	22	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D18-S1	GCM0371-AUG20	23	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D12-S1	GCM0371-AUG20	24	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D13-S1	GCM0371-AUG20	25	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D14-S1	GCM0371-AUG20	26	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D16-S1	GCM0371-AUG20	27	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D11-S1	GCM0371-AUG20	28	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D15-S1	GCM0371-AUG20	29	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D17-S1	GCM0371-AUG20	30	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D19-S1	GCM0371-AUG20	32	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D20-S1	GCM0371-AUG20	33	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020

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

D21-S1	GCM0371-AUG20	34	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D22-S1	GCM0371-AUG20	35	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D23-S1	GCM0371-AUG20	36	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D24-S1	GCM0371-AUG20	37	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D25-S1	GCM0371-AUG20	38	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D26-S1	GCM0371-AUG20	39	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D28-S1	GCM0371-AUG20	40	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D27-S1	GCM0371-AUG20	41	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D29-S1	GCM0371-AUG20	42	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D30-S1	GCM0371-AUG20	43	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP8	GCM0371-AUG20	45	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP9	GCM0371-AUG20	46	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP10	GCM0371-AUG20	47	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP11	GCM0371-AUG20	48	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

D2-S3	GCM0388-AUG20	13	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D7-S3	GCM0388-AUG20	14	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D9-S3	GCM0388-AUG20	15	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D3-S3	GCM0388-AUG20	16	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D4-S3	GCM0388-AUG20	17	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D6-S3	GCM0388-AUG20	18	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D1-S1	GCM0388-AUG20	19	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D5-S1	GCM0388-AUG20	20	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D8-S1	GCM0388-AUG20	21	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D10-S1	GCM0388-AUG20	22	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D18-S1	GCM0388-AUG20	23	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D12-S1	GCM0388-AUG20	24	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D13-S1	GCM0388-AUG20	25	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D14-S1	GCM0439-AUG20	26	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D16-S1	GCM0439-AUG20	27	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D11-S1	GCM0439-AUG20	28	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D15-S1	GCM0439-AUG20	29	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D17-S1	GCM0439-AUG20	30	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D19-S1	GCM0439-AUG20	32	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D20-S1	GCM0439-AUG20	33	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D21-S1	GCM0439-AUG20	34	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D22-S1	GCM0439-AUG20	35	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020

HOLDING TIME SUMMARY

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

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

D23-S1	GCM0439-AUG20	36	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D24-S1	GCM0439-AUG20	37	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D25-S1	GCM0439-AUG20	38	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D26-S1	GCM0439-AUG20	39	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D28-S1	GCM0439-AUG20	40	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D27-S1	GCM0439-AUG20	41	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D29-S1	GCM0514-AUG20	42	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D30-S1	GCM0439-AUG20	43	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP8	GCM0514-AUG20	45	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP9	GCM0514-AUG20	46	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP10	GCM0514-AUG20	47	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP11	GCM0514-AUG20	48	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020

Petroleum Hydrocarbons (F1)

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

SB1-S1	GCM0392-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020
SB3-S1	GCM0392-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020
TR1-S1	GCM0392-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020

Petroleum Hydrocarbons (F2-F4)

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

SB1-S1	GCM0450-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020
SB3-S1	GCM0450-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020
TR1-S1	GCM0450-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020

pH

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

SB1-S1	ARD0081-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB2-S1	ARD0081-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB3-S1	ARD0081-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB4-S1	ARD0081-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020

Polychlorinated Biphenyls

Method: EPA 3570/8082A/8270C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-001

TR1-S1	GCM0449-AUG20	12	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/10/2021	08/26/2020
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Semi-Volatile Organics

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

SB1-S1	GCM0421-AUG20	8	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
SB2-S1	GCM0421-AUG20	9	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
SB3-S1	GCM0421-AUG20	10	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020

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

SB4-S1	GCM0421-AUG20	11	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
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Sodium adsorption ratio (SAR)

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

SB1-S1	ESG0070-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB2-S1	ESG0070-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB3-S1	ESG0070-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB4-S1	ESG0070-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020

Volatile Organics

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

SB1-S1	GCM0391-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020
SB3-S1	GCM0391-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020
TR1-S1	GCM0391-AUG20	12	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020

Water Soluble Boron

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

SB1-S1	ESG0068-AUG20	8	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB2-S1	ESG0068-AUG20	9	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB3-S1	ESG0068-AUG20	10	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB4-S1	ESG0068-AUG20	11	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020



FINAL REPORT

CA14587-AUG20 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	EWL0312-AUG20	mS/cm	0.002	<0.002	0	10	100	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	SKA5067-AUG20	µg/g	0.05	<0.05	ND	20	99	80	120	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	SKA5086-AUG20	ug/g	0.2	<0.2	ND	20	91	80	120	81	75	125



FINAL REPORT

CA14587-AUG20 R1

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	EMS0140-AUG20	µg/g	0.05	<0.05	6	20	101	80	120	97	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	ESG0070-AUG20	mg/L	0.09	<0.09	1	20	99	80	120	99	70	130
SAR Magnesium	ESG0070-AUG20	mg/L	0.02	<0.02	5	20	97	80	120	102	70	130
SAR Sodium	ESG0070-AUG20	mg/L	0.15	<0.15	9	20	97	80	120	98	70	130



FINAL REPORT

CA14587-AUG20 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	EMS0140-AUG20	ug/g	0.05	<0.05	6	20	94	70	130	105	70	130
Arsenic	EMS0140-AUG20	µg/g	0.5	<0.5	3	20	96	70	130	104	70	130
Barium	EMS0140-AUG20	ug/g	0.1	<0.1	6	20	101	70	130	118	70	130
Beryllium	EMS0140-AUG20	µg/g	0.02	<0.02	2	20	98	70	130	109	70	130
Boron	EMS0140-AUG20	µg/g	1	<1	1	20	108	70	130	108	70	130
Cadmium	EMS0140-AUG20	µg/g	0.02	<0.02	15	20	97	70	130	115	70	130
Cobalt	EMS0140-AUG20	µg/g	0.01	<0.01	2	20	95	70	130	118	70	130
Chromium	EMS0140-AUG20	µg/g	0.5	<0.5	1	20	96	70	130	121	70	130
Copper	EMS0140-AUG20	µg/g	0.1	<0.1	0	20	97	70	130	113	70	130
Molybdenum	EMS0140-AUG20	µg/g	0.1	<0.1	14	20	91	70	130	117	70	130
Nickel	EMS0140-AUG20	ug/g	0.5	<0.5	1	20	92	70	130	116	70	130
Lead	EMS0140-AUG20	µg/g	0.1	<0.1	0	20	96	70	130	103	70	130
Antimony	EMS0140-AUG20	µg/g	0.8	<0.8	ND	20	100	70	130	103	70	130
Selenium	EMS0140-AUG20	µg/g	0.7	<0.7	ND	20	99	70	130	109	70	130
Thallium	EMS0140-AUG20	µg/g	0.02	<0.02	1	20	100	70	130	108	70	130
Uranium	EMS0140-AUG20	µg/g	0.002	<0.002	8	20	95	70	130	96	70	130
Vanadium	EMS0140-AUG20	µg/g	3	<3	0	20	96	70	130	117	70	130
Zinc	EMS0140-AUG20	µg/g	0.7	<0.7	7	20	95	70	130	112	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	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	84	50	140
alpha-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	82	50	140
Dieldrin	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	83	50	140
Endosulfan I	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	84	50	140
Endosulfan II	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	81	50	140
Endrin	GCM0439-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	85	50	140
gamma-BHC	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	88	50	140	83	50	140
gamma-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	82	50	140
Heptachlor epoxide	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Heptachlor	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	81	50	140
Hexachlorobenzene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Hexachlorobutadiene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	78	50	140	77	50	140
Hexachloroethane	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	71	50	140	68	50	140
Methoxychlor	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	94	50	140
o,p-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	84	50	140	81	50	140
o,p-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	86	50	140
op-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	82	50	140
pp-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	81	50	140	79	50	140
pp-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	87	50	140
pp-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140

QC SUMMARY

Pesticides (continued)

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	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	93	50	140
alpha-Chlordane	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
Dieldrin	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	95	50	140
Endosulfan I	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	104	50	140	110	50	140
Endosulfan II	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	81	50	140
Endrin	GCM0514-AUG20	µg/g	0.04	< 0.04	ND	40	99	50	140	98	50	140
gamma-BHC	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	93	50	140	96	50	140
gamma-Chlordane	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
Heptachlor epoxide	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	91	50	140	92	50	140
Heptachlor	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	90	50	140	91	50	140
Hexachlorobenzene	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	94	50	140	94	50	140
Hexachlorobutadiene	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	94	50	140	95	50	140
Hexachloroethane	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	92	50	140	93	50	140
Methoxychlor	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	103	50	140	95	50	140
o,p-DDD	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	96	50	140
o,p-DDE	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	93	50	140
op-DDT	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	89	50	140
pp-DDD	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	91	50	140	98	50	140
pp-DDE	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
pp-DDT	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	99	50	140	90	50	140

QC SUMMARY

Pesticides (continued)

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	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	97	50	140
alpha-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Dieldrin	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	100	50	140
Endosulfan I	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	98	50	140
Endosulfan II	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	91	50	140
Endrin	GCM0388-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	110	50	140
gamma-BHC	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	94	50	140
gamma-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Heptachlor epoxide	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	98	50	140
Heptachlor	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	96	50	140
Hexachlorobenzene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachlorobutadiene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachloroethane	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	91	50	140
Methoxychlor	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	102	50	140
o,p-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	106	50	140
o,p-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	101	50	140
op-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	89	50	140
pp-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	82	50	140	113	50	140
pp-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	100	50	140
pp-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	89	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)	GCM0392-AUG20	µg/g	10	<10	ND	30	94	80	120	91	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)	GCM0450-AUG20	µg/g	10	<10	ND	30	100	80	120	93	60	140
F3 (C16-C34)	GCM0450-AUG20	µg/g	50	<50	ND	30	100	80	120	93	60	140
F4 (C34-C50)	GCM0450-AUG20	µg/g	50	<50	ND	30	100	80	120	93	60	140



FINAL REPORT

CA14587-AUG20 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	ARD0081-AUG20	pH Units	0.05		0	20	100	80	120			

Polychlorinated Biphenyls

Method: EPA 3570/8082A/8270C | Internal ref.: ME-CA-IENVIGC-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
Polychlorinated Biphenyls (PCBs) - Total	GCM0426-AUG20	µg/g	0.3	< 0.3	ND	40	90	60	140	99	60	140
Polychlorinated Biphenyls (PCBs) - Total	GCM0449-AUG20	µg/g	0.3	< 0.3	ND	40	92	60	140	89	60	140

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
Naphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Phenanthrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Pyrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	96	50	140	95	50	140
1-Methylnaphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	88	50	140
2-Methylnaphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	85	50	140
Acenaphthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Acenaphthylene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	87	50	140
Anthracene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	87	50	140
Benzo(a)anthracene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	93	50	140
Benzo(a)pyrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	91	50	140	96	50	140
Benzo(b+j)fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	95	50	140
Benzo(ghi)perylene	GCM0421-AUG20	µg/g	0.1	< 0.1	ND	40	89	50	140	70	50	140
Benzo(k)fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	92	50	140	87	50	140
Chrysene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Dibenzo(a,h)anthracene	GCM0421-AUG20	µg/g	0.06	< 0.06	ND	40	88	50	140	75	50	140
Fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	92	50	140	93	50	140
Fluorene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Indeno(1,2,3-cd)pyrene	GCM0421-AUG20	µg/g	0.1	< 0.1	ND	40	88	50	140	75	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	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	94	50	140
1,1,1-Trichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	94	50	140
1,1,2,2-Tetrachloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	86	50	140
1,1,2-Trichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	90	50	140
1,1-Dichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
1,1-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	96	50	140
1,2-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	89	50	140
1,2-Dichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	89	50	140
1,2-Dichloropropane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	92	50	140
1,3-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	90	50	140
1,4-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	89	50	140
Acetone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	89	50	140	75	50	140
Benzene	GCM0391-AUG20	µg/g	0.02	< 0.02	ND	50	89	60	130	94	50	140
Bromodichloromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	91	50	140
Bromoform	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	86	60	130	83	50	140
Bromomethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	86	50	140	90	50	140
Carbon tetrachloride	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	93	50	140
Chlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
Chloroform	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	92	50	140
cis-1,2-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	93	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	GCM0391-AUG20	µg/g	0.03	< 0.03	ND	50	91	60	130	85	50	140
Dibromochloromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	88	50	140
Dichlorodifluoromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	74	50	140	74	50	140
Ethylbenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
Ethylenedibromide	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	89	50	140
n-Hexane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	95	60	130	79	50	140
m/p-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
Methyl ethyl ketone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	90	50	140	77	50	140
Methyl isobutyl ketone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	92	50	140	85	50	140
Methyl-t-butyl Ether	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	89	50	140
Methylene Chloride	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	88	60	130	92	50	140
o-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
Styrene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
Tetrachloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	90	50	140
Toluene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
trans-1,2-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	88	60	130	92	50	140
trans-1,3-dichloropropene	GCM0391-AUG20	µg/g	0.03	< 0.03	ND	50	93	60	130	86	50	140
Trichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
Trichlorofluoromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	92	50	140	192	50	140
Vinyl Chloride	GCM0391-AUG20	µg/g	0.02	< 0.02	ND	50	80	50	140	85	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	ESG0068-AUG20	µg/g	0.5	<0.5	ND	20	98	80	120	107	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 --



Received By: Justin Pe
 Received Date: 08/20/20 (mm/dd/yy)
 Received Time: 17:45 (hr: min)
 Cooling Agent Present: Yes No
 Temperature Upon Receipt: (°C) 9.2 Type: Ice
 Custody Seal Present: Yes No
 Custody Seal Inhd: Yes No
 P.O. #: _____
 Site Location/ID: 1500 Bantrel
 LAB LIMS #: CA14587-AC520

REPORT INFORMATION
 Company: DS Geosystems
 Contact: Kristin Olsen
 Address: 6221 Vang Hwy F
Vang, MN 55971
 Phone: _____
 Fax: Kristin.Olsen@dsgeosystems.com
 Email: -con
 Invoice Information
 (same as Report Information)
 Company: _____
 Contact: _____
 Address: _____
 Quotation #: _____
 Project #: 20-186-100
 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
 *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
 Rest/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium/Fine
 Table _____ MISA
 Soil Volume <350m3 >350m3
 RECORD OF SITE CONDITION (RSC) YES NO
 Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PWOO MMER
 CCME Other:
 MISA
 ODWS Not Reportable *See note
 Sewer By-Law:
 Sanitary
 Storm
 Municipality:
 ANALYSIS REQUESTED
 M & I SVOC PCB PHC VOC Pest Other (please specify)
 Field Filtered (Y/N)
 Metals & Inorganics (Hg, CrVI, CN, Hg, pH, B(HWS), EC, SAR, soil) (Cl, Na-water)
 Full Metals Suite (ICP metals plus B(HWS-soil only) Hg, CrVI)
 ICP Metals only (Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni)
 PAHs only
 SVOCs (all incl PAHs, ABNs, CPs)
 PCBs Total Aroclor
 F1-F4 + BTEX
 F1-F4 only (no BTEX)
 VOCs (all incl BTEX)
 BTEX only
 Pesticides (Organochlorine or specify other)
 Appendix 2: 406/19 Leachate Screening Levels Table:
 Sewer Use: Specify pkg:
 Water Characterization Pkg
 General Extended
 DMSI DVOG InCB BioloP DABN TGLP tests DMSI DVOG InCB BioloP DABN TGLP tests

DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	M & I	SVOC	PCB	PHC	VOC	Pest	Other	TCLP
8/20/20	P.M.	5	Soil	✓	✓	✓	✓	✓	✓		
		2		✓	✓	✓	✓	✓	✓		
		5		✓	✓	✓	✓	✓	✓		
		2		✓	✓	✓	✓	✓	✓		
		2		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		
		1		✓	✓	✓	✓	✓	✓		

Sampled By (NAME): Andan Park Signature: _____ Date: 08/20/20 (mm/dd/yy)
 Relinquished by (NAME): Andan Park Signature: _____ Date: 08/20/20 (mm/dd/yy)
 Note: Submission of samples to SGS is acknowledgment that you have been provided directions 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 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

Received By: Sue D

Received By (signature):

Laboratory Information Section - Lab use only

Received Date: 08/12/20 (mm/dd/yy)
 Received Time: 1:45 PM (hr : mm)

Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Cooling Agent Present: Yes No
 Temperature Upon Receipt (°C): 9.2 Type: Ice

LAB LIMS #:

REPORT INFORMATION

INVOICE INFORMATION

Company: DS
 Contact: Kristin Olsen
 Address: 6221 Hwy 7, Unit 16

(same as Report Information)
 Company: _____
 Contact: _____
 Address: _____

Quotation #: _____
 Project #: 20-186-100

P.O. #: _____
 Site Location/ID: 1300 Stone Rd

Phone: _____
 Fax: _____

Phone: _____
 Fax: _____

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
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Email: Kristin.Olsen@sgs.com skous@trufair.com accounting@sgsconsultants.com

REGULATIONS

Regulation 153/04:
 Res/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium
 Table Fine

Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PWQO MMER
 CCME Other:
 MISA

Sewer By-Law:
 Sanitary
 Storm
 Municipality: _____

TCLP
 Specify tests: DMH VOC PCB B[a]P AN light

COMMENTS:

RECORD OF SITE CONDITION (RSC)	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	8/20/20	PM	1	Soil
SAMPLE IDENTIFICATION				
1	D18-S1			
2	D19-S1			
3	D20-S1			
4	D21-S1			
5	D22-S1			
6	D23-S1			
7	D24-S1			
8	D25-S1			
9	D26-S1			
10	D28-S1			
11	D27-S1			
12	D29-S1			

Field Filtered (Y/N)	M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)
	Metals & Inorganics incl Cr,VI, CN,Hg pH,(B)(HWS),EC,SAR-soil (Cl, Na-water)	Full Metals Suite ICP metals plus B(HWS-soil only) Hg, Cr,VI	PAHs only	SVOCs all incl PAHs, ABNs, CPs	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only no BTEX
	ICP Metals only Sb,As,Ba,Bi,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Ti,U,V,Zn	PAHs only	SVOCs all incl PAHs, ABNs, CPs	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only no BTEX	VOCs all incl BTEX
	BTEX only	BTEX only	Pesticides Organochlorine or specify other				
	Sewer Use: Specify pkg:	Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>					

Sampled By (NAME): Adrian Park Signature: _____ Date: 08/20/20 (mm/dd/yy)

Relinquished by (NAME): Adrian Park Signature: _____ Date: 08/20/20 (mm/dd/yy)

Notes: Submission of samples to SGS is acknowledgment 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.

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FINAL REPORT

CA14587-AUG20 R1

20-186-100

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	20-186-100	SGS Reference	CA14587-AUG20
Order Number		Received	08/20/2020
Samples	soil (40)	Approved	08/31/2020
		Report Number	CA14587-AUG20 R1
		Date Reported	08/31/2020

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: 9 degrees C

Cooling Agent Present:Yes

Custody Seal Present:Yes

Chain of Custody Number:016587/014094/95/96

Trichlorofluoromethane Matrix Spike; Recovery is outside control limits. The overall quality control for this analysis has been assessed and meets method acceptability criteria.

SIGNATORIES

Jill Campbell, B.Sc.,GISAS



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FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	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	< 0.05	< 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	< 0.05
o-xylene	µg/g	0.05		< 0.05	< 0.05	< 0.05

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

Sample Number	8	9	10	11	16	17	18	19
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	D3-S3	D4-S3	D6-S3	D1-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Hydrides											
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	µg/g	0.5	18	4.6	4.7	6.6	5.8	7.2	18	7.3	20
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	20	21	22	23	24	25	26	27
Sample Name	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Hydrides												
Antimony	µg/g	0.8	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	
Arsenic	µg/g	0.5	18	34	9.3	13	21	24	4.0	30	20	
Selenium	µg/g	0.7	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	

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

Sample Number	44
Sample Name	SDUP7
Sample Matrix	soil
Sample Date	20/08/2020

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

Parameter	Units	RL	L1	Result
Hydrides				
Antimony	µg/g	0.8	1.3	< 0.8
Arsenic	µg/g	0.5	18	20
Selenium	µg/g	0.7	1.5	< 0.7

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	8	9	10	11	12	13	14	15
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics											
Moisture Content	%	-		12.5	9.8	12.8	10.6	11.6	9.6	11.2	12.6
Barium	µg/g	0.1	220	86	86	48	80				
Beryllium	µg/g	0.02	2.5	0.65	0.64	0.40	0.58				
Boron	µg/g	1	36	7	8	6	8				



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

Sample Number	8	9	10	11	12	13	14	15
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics (continued)												
Cadmium	µg/g	0.02	1.2	0.25	0.28	0.11	0.16					
Chromium	µg/g	0.5	70	22	24	13	19					
Cobalt	µg/g	0.01	21	11	11	6.5	11					
Copper	µg/g	0.1	92	30	29	25	29					
Lead	µg/g	0.1	120	26	24	24	23					
Molybdenum	µg/g	0.1	2	0.5	0.5	0.3	0.5					
Nickel	µg/g	0.5	82	22	22	14	22					
Silver	µg/g	0.05	0.5	0.05	0.05	< 0.05	< 0.05					
Thallium	µg/g	0.02	1	0.14	0.15	0.09	0.15					
Uranium	µg/g	0.002	2.5	0.58	0.57	0.40	0.50					
Vanadium	µg/g	3	86	28	28	19	25					
Zinc	µg/g	0.7	290	89	95	45	72					
Water Soluble Boron	µg/g	0.5		< 0.5	< 0.5	< 0.5	< 0.5					



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

Sample Number	16	17	18	19	20	21	22	23
Sample Name	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		9.5	11.9	12.4	14.9	3.7	21.0	15.3	11.0	
Barium	µg/g	0.1	220	40	70	56	47	54	48	46	49	
Beryllium	µg/g	0.02	2.5	0.49	0.69	0.42	0.35	0.38	0.36	0.37	0.37	
Boron	µg/g	1	36	3	6	2	3	3	4	4	2	
Cadmium	µg/g	0.02	1.2	0.11	0.26	0.09	0.17	0.18	0.19	0.14	0.15	
Chromium	µg/g	0.5	70	15	22	13	11	12	12	11	12	
Cobalt	µg/g	0.01	21	7.5	11	6.6	4.9	5.4	5.5	5.0	5.3	
Copper	µg/g	0.1	92	29	46	26	30	29	20	25	22	
Lead	µg/g	0.1	120	24	64	23	120	150	50	62	110	
Molybdenum	µg/g	0.1	2	0.4	0.5	0.4	0.4	0.5	0.4	0.4	0.4	
Nickel	µg/g	0.5	82	16	27	13	10	11	11	11	11	
Silver	µg/g	0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	
Thallium	µg/g	0.02	1	0.10	0.13	0.10	0.09	0.11	0.11	0.10	0.10	
Uranium	µg/g	0.002	2.5	0.42	0.53	0.36	0.46	0.47	0.54	0.45	0.39	
Vanadium	µg/g	3	86	22	27	20	17	19	18	17	18	
Zinc	µg/g	0.7	290	45	72	50	61	65	63	55	61	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Metals and Inorganics (SOIL)

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

Sample Number	24	25	26	27	28	29	30	32
Sample Name	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		15.0	13.8	16.4	15.6	13.6	12.0	13.6	12.5	
Barium	µg/g	0.1	220	49	53	48	57					
Beryllium	µg/g	0.02	2.5	0.34	0.37	0.30	0.41					
Boron	µg/g	1	36	3	3	2	3					
Cadmium	µg/g	0.02	1.2	0.18	0.20	0.18	0.16					
Chromium	µg/g	0.5	70	11	11	9.6	13					
Cobalt	µg/g	0.01	21	4.7	4.9	4.3	6.0					
Copper	µg/g	0.1	92	21	21	26	24					
Lead	µg/g	0.1	120	120	19	150	89					
Molybdenum	µg/g	0.1	2	0.4	0.4	0.4	0.4					
Nickel	µg/g	0.5	82	9.6	11	8.9	12					
Silver	µg/g	0.05	0.5	< 0.05	< 0.05	< 0.05	< 0.05					
Thallium	µg/g	0.02	1	0.10	0.10	0.10	0.11					
Uranium	µg/g	0.002	2.5	0.42	0.45	0.45	0.39					
Vanadium	µg/g	3	86	16	17	15	18					
Zinc	µg/g	0.7	290	57	46	56	63					



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

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

Sample Number	33	34	35	36	37	38	39	40
Sample Name	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		14.4	14.2	14.6	13.7	14.0	16.3	15.8	13.6	

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

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

Sample Number	41	42	43	44	45	46	47	48
Sample Name	D27-S1	D29-S1	D30-S1	SDUP7	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Metals and Inorganics												
Moisture Content	%	-		16.1	13.5	13.1		16.0	15.9	14.8	13.5	
Barium	µg/g	0.1	220				58					
Beryllium	µg/g	0.02	2.5				0.41					
Boron	µg/g	1	36				3					
Cadmium	µg/g	0.02	1.2				0.20					
Chromium	µg/g	0.5	70				12					
Cobalt	µg/g	0.01	21				6.0					
Copper	µg/g	0.1	92				24					
Lead	µg/g	0.1	120				88					
Molybdenum	µg/g	0.1	2				0.4					
Nickel	µg/g	0.5	82				12					
Silver	µg/g	0.05	0.5				< 0.05					
Thallium	µg/g	0.02	1				0.11					
Uranium	µg/g	0.002	2.5				0.39					
Vanadium	µg/g	3	86				18					



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Metals and Inorganics (SOIL)**

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

Sample Number	41	42	43	44	45	46	47	48
Sample Name	D27-S1	D29-S1	D30-S1	SDUP7	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
Metals and Inorganics (continued)											
Zinc	µg/g	0.7	290					62			

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	13	14	15	16	17	18	19	20
Sample Name	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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
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
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	0.05	< 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	0.04	0.17	0.06	0.45	0.45
DDE (total)	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.17	0.06	0.45	0.45
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	0.05	< 0.02	0.12	0.11
DDT (total)	µg/g	0.05	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	0.12	0.11
Dieldrin	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	13	14	15	16	17	18	19	20
Sample Name	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	21	22	23	24	25	26	27	28
Sample Name	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.03	0.03	< 0.02	< 0.02	< 0.02	< 0.02	
DDD (total)	µg/g	0.05	0.05	< 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		0.31	0.39	0.54	0.44	< 0.02	0.48	0.31	< 0.02	
DDE (total)	µg/g	0.05	0.05	0.31	0.39	0.54	0.44	< 0.05	0.48	0.31	< 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		0.06	0.06	0.14	0.08	< 0.02	0.14	0.08	< 0.02	
DDT (total)	µg/g	0.05	1.4	0.06	0.06	0.14	0.08	< 0.05	0.14	0.08	< 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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	21	22	23	24	25	26	27	28
Sample Name	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	

PACKAGE: **REG153 - Organochlorine Pests (OCs)**

(SOIL)

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

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.05	< 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		0.10	0.05	0.04	0.14	< 0.02	< 0.02	0.06	< 0.02	
DDE (total)	µg/g	0.05	0.05	0.10	< 0.05	< 0.05	0.14	< 0.05	< 0.05	0.06	< 0.05	
op-DDT	µg/g	0.02		< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
pp-DDT	µg/g	0.02		0.03	0.03	< 0.02	0.03	< 0.02	< 0.02	0.02	< 0.02	
DDT (total)	µg/g	0.05	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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	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	
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	
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	0.05	< 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	0.04	< 0.02	< 0.02	
DDE (total)	µg/g	0.05	0.05	< 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	< 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	
gamma-BHC	µg/g	0.01	0.01	< 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	
Endrin	µg/g	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	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Organochlorine Pests (OCs) (continued)												
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

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

Sample Number	47	48
Sample Name	SDUP10	SDUP11
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs)					
Aldrin	µg/g	0.05	0.05	< 0.05	< 0.05
alpha-Chlordane	µg/g	0.02		< 0.02	< 0.02
gamma-Chlordane	µg/g	0.02		< 0.02	< 0.02
Chlordane (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDD	µg/g	0.02		< 0.02	< 0.02
pp-DDD	µg/g	0.02		< 0.02	< 0.02
DDD (total)	µg/g	0.05	0.05	< 0.05	< 0.05
o,p-DDE	µg/g	0.02		< 0.02	< 0.02
pp-DDE	µg/g	0.02		< 0.02	0.02
DDE (total)	µg/g	0.05	0.05	< 0.05	< 0.05
op-DDT	µg/g	0.02		< 0.02	< 0.02



FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - Organochlorine Pests (OCs)

(SOIL)

Sample Number 47 48

Sample Name SDUP10 SDUP11

Sample Matrix soil soil

Sample Date 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result
Organochlorine Pests (OCs) (continued)					
pp-DDT	µg/g	0.02		< 0.02	< 0.02
DDT (total)	µg/g	0.05	1.4	< 0.05	< 0.05
Dieldrin	µg/g	0.05	0.05	< 0.05	< 0.05
gamma-BHC	µg/g	0.01	0.01	< 0.01	< 0.01
Endosulfan I	µg/g	0.02		< 0.02	< 0.02
Endosulfan II	µg/g	0.02		< 0.02	< 0.02
Endosulfan (total)	µg/g	0.04	0.04	< 0.04	< 0.04
Endrin	µg/g	0.04	0.04	< 0.04	< 0.04
Heptachlor	µg/g	0.01	0.05	< 0.01	< 0.01
Heptachlor epoxide	µg/g	0.01	0.05	< 0.01	< 0.01
Hexachlorobenzene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachlorobutadiene	µg/g	0.01	0.01	< 0.01	< 0.01
Hexachloroethane	µg/g	0.01	0.01	< 0.01	< 0.01
Methoxychlor	µg/g	0.05	0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
Other (ORP)							
Mercury	µg/g	0.05	0.27	< 0.05	< 0.05	< 0.05	< 0.05
Sodium Adsorption Ratio	No unit	0.2	2.4	< 0.2	0.3	0.2	< 0.2
SAR Calcium	mg/L	0.09		30.8	28.4	22.0	27.8
SAR Magnesium	mg/L	0.02		3.8	4.7	3.7	3.6
SAR Sodium	mg/L	0.15		2.8	6.4	4.2	1.4
Conductivity	mS/cm	0.002	0.57	0.18	0.18	0.16	0.16
pH	pH Units	0.05		7.49	7.61	7.70	7.73
Chromium VI	µg/g	0.2	0.66	< 0.2	0.3	< 0.2	< 0.2
Free Cyanide	µg/g	0.05	0.051	< 0.05	< 0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

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



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number 12
 Sample Name TR1-S1
 Sample Matrix soil
 Sample Date 20/08/2020

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

Parameter	Units	RL	L1	Result
PCBs				
Polychlorinated Biphenyls (PCBs) - Total	µg/g	0.3	0.3	< 0.3

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 13 14 15 16 17 18 19 20
 Sample Name D2-S3 D7-S3 D9-S3 D3-S3 D4-S3 D6-S3 D1-S1 D5-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-		109	109	104	104	112	104	104	106	

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 21 22 23 24 25 26 27 28
 Sample Name D8-S1 D10-S1 D18-S1 D12-S1 D13-S1 D14-S1 D16-S1 D11-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate												
Surr Decachlorobiphenyl	Surr Rec %	-		105	106	111	107	106	100	101	105	

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number 29 30 32 33 34 35 36 37
 Sample Name D15-S1 D17-S1 D19-S1 D20-S1 D21-S1 D22-S1 D23-S1 D24-S1
 Sample Matrix soil soil soil soil soil soil soil soil
 Sample Date 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020 20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
Pesticides Surrogate												



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	29	30	32	33	34	35	36	37
Sample Name	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
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Pesticides Surrogate (continued)

Surr Decachlorobiphenyl	Surr Rec %	-		105	110	109	104	104	105	80	101
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PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	38	39	40	41	42	43	45	46
Sample Name	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result
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Pesticides Surrogate

Surr Decachlorobiphenyl	Surr Rec %	-		103	102	92	97	98	103	77	93
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PACKAGE: **REG153 - Pesticides Surrogate (SOIL)**

Sample Number	47	48
Sample Name	SDUP10	SDUP11
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
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Pesticides Surrogate

Surr Decachlorobiphenyl	Surr Rec %	-		94	96
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PACKAGE: **REG153 - PHCs (SOIL)**

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result
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PHCs



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - PHCs (SOIL)

Sample Number	8	10	12
Sample Name	SB1-S1	SB3-S1	TR1-S1
Sample Matrix	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result
PHCs (continued)						
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	9	10	11
Sample Name	SB1-S1	SB2-S1	SB3-S1	SB4-S1
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
SVOC Surrogates							
Surr Nitrobenzene-d5	Surr Rec %	-		94	88	99	93
Surr 2-Fluorobiphenyl	Surr Rec %	-		86	87	90	82
Surr 4-Terphenyl-d14	Surr Rec %	-		89	96	98	95
Surr 2-Fluorophenol	Surr Rec %	-		80	76	81	78
Surr Phenol-d6	Surr Rec %	-		85	83	86	82
Surr 2,4,6-Tribromophenol	Surr Rec %	-		84	85	94	89



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: REG153 - THMs (VOC) (SOIL)

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

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

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	8	10	13	14	15	16	17	18
Sample Name	SB1-S1	SB3-S1	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates											
Surr 1,2-Dichloroethane-d4	Surr Rec %	-		94	94						
Surr 4-Bromofluorobenzene	Surr Rec %	-		91	92						
Surr 2-Bromo-1-Chloropropane	Surr Rec %	-		82	82						
Surr TCMX	Surr Rec %	-				97	95	93	95	100	89



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Client: DS Consultants

Project: 20-186-100

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Samplers: Aidan Dools

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	19	20	21	22	23	24	25	26
Sample Name	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		89	91	90	90	97	91	90	82	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	27	28	29	30	32	33	34	35
Sample Name	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		80	88	88	87	92	85	85	86	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	36	37	38	39	40	41	42	43
Sample Name	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1
Sample Matrix	soil	soil	soil	soil	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result	Result	Result	Result	Result	
VOC Surrogates												
Surr TCMX	Surr Rec %	-		70	83	83	81	76	79	93	83	

PACKAGE: REG153 - VOC Surrogates (SOIL)

Sample Number	45	46	47	48
Sample Name	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
VOC Surrogates							



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

PACKAGE: **REG153 - VOC Surrogates (SOIL)**

Sample Number	45	46	47	48
Sample Name	SDUP8	SDUP9	SDUP10	SDUP11
Sample Matrix	soil	soil	soil	soil
Sample Date	20/08/2020	20/08/2020	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result	Result	Result
VOC Surrogates (continued)							
Surr TCMX	Surr Rec %	-		82	88	87	99

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

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
VOCs					
Acetone	µg/g	0.5	0.5	< 0.5	< 0.5
Bromomethane	µg/g	0.05	0.05	< 0.05	< 0.05
Carbon tetrachloride	µg/g	0.05	0.05	< 0.05	< 0.05
Chlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
Chloroform	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
1,3-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
1,4-Dichlorobenzene	µg/g	0.05	0.05	< 0.05	< 0.05
Dichlorodifluoromethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,1-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
1,1-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
trans-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
cis-1,2-Dichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
1,2-Dichloropropane	µg/g	0.05	0.05	< 0.05	< 0.05



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Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

Sample Number	8	10
Sample Name	SB1-S1	SB3-S1
Sample Matrix	soil	soil
Sample Date	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
VOCs (continued)					
cis-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03
trans-1,3-dichloropropene	µg/g	0.03		< 0.03	< 0.03
1,3-dichloropropene (total)	µg/g	0.05	0.05	< 0.05	< 0.05
Ethylenedibromide	µg/g	0.05	0.05	< 0.05	< 0.05
n-Hexane	µg/g	0.05	0.05	< 0.05	< 0.05
Methyl ethyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5
Methyl isobutyl ketone	µg/g	0.5	0.5	< 0.5	< 0.5
Methyl-t-butyl Ether	µg/g	0.05	0.05	< 0.05	< 0.05
Methylene Chloride	µg/g	0.05	0.05	< 0.05	< 0.05
Styrene	µg/g	0.05	0.05	< 0.05	< 0.05
Tetrachloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
1,1,1,2-Tetrachloroethane	µg/g	0.05	0.05	< 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	0.05	< 0.05	< 0.05
1,1,2-Trichloroethane	µg/g	0.05	0.05	< 0.05	< 0.05
Trichloroethylene	µg/g	0.05	0.05	< 0.05	< 0.05
Trichlorofluoromethane	µg/g	0.05	0.25	< 0.05	< 0.05
Vinyl Chloride	µg/g	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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D4-S3

DDE	EPA 3541/8270D	µg/g	0.17	0.05
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D6-S3

DDE	EPA 3541/8270D	µg/g	0.06	0.05
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D1-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
DDE	EPA 3541/8270D	µg/g	0.45	0.05

D5-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	34	18
Lead	EPA 3050/EPA 200.8	µg/g	150	120
DDE	EPA 3541/8270D	µg/g	0.45	0.05

D8-S1

DDE	EPA 3541/8270D	µg/g	0.31	0.05
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D10-S1

DDE	EPA 3541/8270D	µg/g	0.39	0.05
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D18-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	21	18
DDE	EPA 3541/8270D	µg/g	0.54	0.05

D12-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	24	18
DDE	EPA 3541/8270D	µg/g	0.44	0.05

D14-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	30	18
Lead	EPA 3050/EPA 200.8	µg/g	150	120
DDE	EPA 3541/8270D	µg/g	0.48	0.05

D16-S1

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
DDE	EPA 3541/8270D	µg/g	0.31	0.05

D15-S1

DDE	EPA 3541/8270D	µg/g	0.10	0.05
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EXCEEDANCE SUMMARY

Parameter	Method	Units	Result	REG153 / SOIL / COARSE - TABLE 1 - Residential/Parklan d/Industrial - UNDEFINED L1
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D20-S1

DDE	EPA 3541/8270D	µg/g	0.14	0.05
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D23-S1

DDE	EPA 3541/8270D	µg/g	0.06	0.05
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SDUP7

Arsenic	EPA 3050/EPA 200.8	µg/g	20	18
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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

SB1-S1	EWL0312-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB2-S1	EWL0312-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB3-S1	EWL0312-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020
SB4-S1	EWL0312-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/17/2020	08/24/2020

Cyanide by SFA

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

SB1-S1	SKA5067-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB2-S1	SKA5067-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB3-S1	SKA5067-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020
SB4-S1	SKA5067-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/03/2020	08/25/2020

Hexavalent Chromium by SFA

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

SB1-S1	SKA5086-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB2-S1	SKA5086-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB3-S1	SKA5086-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020
SB4-S1	SKA5086-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/26/2020	09/19/2020	08/27/2020

Mercury by CVAAS

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

SB1-S1	EMS0140-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB2-S1	EMS0140-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB3-S1	EMS0140-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020
SB4-S1	EMS0140-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	09/17/2020	08/25/2020

Metals in aqueous samples - ICP-OES

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

SB1-S1	ESG0070-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB2-S1	ESG0070-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB3-S1	ESG0070-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB4-S1	ESG0070-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020

Metals in Soil - Aqua-regia/ICP-MS

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

SB1-S1	EMS0140-AUG20	8	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB2-S1	EMS0140-AUG20	9	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB3-S1	EMS0140-AUG20	10	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SB4-S1	EMS0140-AUG20	11	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D3-S3	EMS0140-AUG20	16	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D4-S3	EMS0140-AUG20	17	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020

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 (continued)

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

D6-S3	EMS0140-AUG20	18	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D1-S1	EMS0140-AUG20	19	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D5-S1	EMS0140-AUG20	20	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D8-S1	EMS0140-AUG20	21	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D10-S1	EMS0140-AUG20	22	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D18-S1	EMS0140-AUG20	23	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D12-S1	EMS0140-AUG20	24	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D13-S1	EMS0140-AUG20	25	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D14-S1	EMS0140-AUG20	26	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
D16-S1	EMS0140-AUG20	27	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020
SDUP7	EMS0140-AUG20	44	08/20/2020	08/20/2020	08/21/2020	08/24/2020	02/16/2021	08/25/2020

Moisture

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

SB1-S1	GCM0371-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB2-S1	GCM0371-AUG20	9	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB3-S1	GCM0371-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SB4-S1	GCM0371-AUG20	11	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
TR1-S1	GCM0405-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D2-S3	GCM0371-AUG20	13	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D7-S3	GCM0371-AUG20	14	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D9-S3	GCM0371-AUG20	15	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D3-S3	GCM0371-AUG20	16	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D4-S3	GCM0371-AUG20	17	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D6-S3	GCM0371-AUG20	18	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D1-S1	GCM0371-AUG20	19	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D5-S1	GCM0371-AUG20	20	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D8-S1	GCM0371-AUG20	21	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D10-S1	GCM0371-AUG20	22	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D18-S1	GCM0371-AUG20	23	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D12-S1	GCM0371-AUG20	24	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D13-S1	GCM0371-AUG20	25	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D14-S1	GCM0371-AUG20	26	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D16-S1	GCM0371-AUG20	27	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D11-S1	GCM0371-AUG20	28	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D15-S1	GCM0371-AUG20	29	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D17-S1	GCM0371-AUG20	30	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D19-S1	GCM0371-AUG20	32	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D20-S1	GCM0371-AUG20	33	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020

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

D21-S1	GCM0371-AUG20	34	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D22-S1	GCM0371-AUG20	35	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D23-S1	GCM0371-AUG20	36	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D24-S1	GCM0371-AUG20	37	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D25-S1	GCM0371-AUG20	38	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D26-S1	GCM0371-AUG20	39	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D28-S1	GCM0371-AUG20	40	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D27-S1	GCM0371-AUG20	41	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D29-S1	GCM0371-AUG20	42	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
D30-S1	GCM0371-AUG20	43	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP8	GCM0371-AUG20	45	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP9	GCM0371-AUG20	46	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP10	GCM0371-AUG20	47	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020
SDUP11	GCM0371-AUG20	48	08/20/2020	08/20/2020	08/26/2020	08/26/2020	10/19/2020	08/25/2020

Pesticides

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

D2-S3	GCM0388-AUG20	13	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D7-S3	GCM0388-AUG20	14	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D9-S3	GCM0388-AUG20	15	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D3-S3	GCM0388-AUG20	16	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D4-S3	GCM0388-AUG20	17	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D6-S3	GCM0388-AUG20	18	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D1-S1	GCM0388-AUG20	19	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D5-S1	GCM0388-AUG20	20	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D8-S1	GCM0388-AUG20	21	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D10-S1	GCM0388-AUG20	22	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D18-S1	GCM0388-AUG20	23	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D12-S1	GCM0388-AUG20	24	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D13-S1	GCM0388-AUG20	25	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D14-S1	GCM0439-AUG20	26	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D16-S1	GCM0439-AUG20	27	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D11-S1	GCM0439-AUG20	28	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D15-S1	GCM0439-AUG20	29	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D17-S1	GCM0439-AUG20	30	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D19-S1	GCM0439-AUG20	32	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D20-S1	GCM0439-AUG20	33	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D21-S1	GCM0439-AUG20	34	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D22-S1	GCM0439-AUG20	35	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020

HOLDING TIME SUMMARY

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

Method: EPA 3541/8270D | Internal ref.: ME-CA-[ENV]GC-LAK-AN-018

D23-S1	GCM0439-AUG20	36	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D24-S1	GCM0439-AUG20	37	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D25-S1	GCM0439-AUG20	38	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D26-S1	GCM0439-AUG20	39	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D28-S1	GCM0439-AUG20	40	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D27-S1	GCM0439-AUG20	41	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D29-S1	GCM0514-AUG20	42	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
D30-S1	GCM0439-AUG20	43	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP8	GCM0514-AUG20	45	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP9	GCM0514-AUG20	46	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP10	GCM0514-AUG20	47	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020
SDUP11	GCM0514-AUG20	48	08/20/2020	08/20/2020	08/24/2020	08/25/2020	09/29/2020	08/31/2020

Petroleum Hydrocarbons (F1)

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

SB1-S1	GCM0392-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020
SB3-S1	GCM0392-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020
TR1-S1	GCM0392-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/03/2020	08/25/2020

Petroleum Hydrocarbons (F2-F4)

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

SB1-S1	GCM0450-AUG20	8	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020
SB3-S1	GCM0450-AUG20	10	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020
TR1-S1	GCM0450-AUG20	12	08/20/2020	08/20/2020	08/26/2020	08/26/2020	09/29/2020	08/27/2020

pH

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

SB1-S1	ARD0081-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB2-S1	ARD0081-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB3-S1	ARD0081-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020
SB4-S1	ARD0081-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/19/2020	08/24/2020

Polychlorinated Biphenyls

Method: EPA 3570/8082A/8270C | Internal ref.: ME-CA-[ENV]GC-LAK-AN-001

TR1-S1	GCM0449-AUG20	12	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/10/2021	08/26/2020
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Semi-Volatile Organics

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

SB1-S1	GCM0421-AUG20	8	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
SB2-S1	GCM0421-AUG20	9	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
SB3-S1	GCM0421-AUG20	10	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020

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

SB4-S1	GCM0421-AUG20	11	08/20/2020	08/20/2020	08/25/2020	08/25/2020	10/19/2020	08/26/2020
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Sodium adsorption ratio (SAR)

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

SB1-S1	ESG0070-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB2-S1	ESG0070-AUG20	9	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB3-S1	ESG0070-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020
SB4-S1	ESG0070-AUG20	11	08/20/2020	08/20/2020	08/24/2020	08/24/2020	02/16/2021	08/24/2020

Volatile Organics

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

SB1-S1	GCM0391-AUG20	8	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020
SB3-S1	GCM0391-AUG20	10	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020
TR1-S1	GCM0391-AUG20	12	08/20/2020	08/20/2020	08/24/2020	08/24/2020	09/03/2020	08/26/2020

Water Soluble Boron

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

SB1-S1	ESG0068-AUG20	8	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB2-S1	ESG0068-AUG20	9	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB3-S1	ESG0068-AUG20	10	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020
SB4-S1	ESG0068-AUG20	11	08/20/2020	08/20/2020	08/22/2020	08/24/2020	02/16/2021	08/25/2020



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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	EWL0312-AUG20	mS/cm	0.002	<0.002	0	10	100	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	SKA5067-AUG20	µg/g	0.05	<0.05	ND	20	99	80	120	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	SKA5086-AUG20	ug/g	0.2	<0.2	ND	20	91	80	120	81	75	125



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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	EMS0140-AUG20	µg/g	0.05	<0.05	6	20	101	80	120	97	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	ESG0070-AUG20	mg/L	0.09	<0.09	1	20	99	80	120	99	70	130
SAR Magnesium	ESG0070-AUG20	mg/L	0.02	<0.02	5	20	97	80	120	102	70	130
SAR Sodium	ESG0070-AUG20	mg/L	0.15	<0.15	9	20	97	80	120	98	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	EMS0140-AUG20	ug/g	0.05	<0.05	6	20	94	70	130	105	70	130
Arsenic	EMS0140-AUG20	µg/g	0.5	<0.5	3	20	96	70	130	104	70	130
Barium	EMS0140-AUG20	ug/g	0.1	<0.1	6	20	101	70	130	118	70	130
Beryllium	EMS0140-AUG20	µg/g	0.02	<0.02	2	20	98	70	130	109	70	130
Boron	EMS0140-AUG20	µg/g	1	<1	1	20	108	70	130	108	70	130
Cadmium	EMS0140-AUG20	µg/g	0.02	<0.02	15	20	97	70	130	115	70	130
Cobalt	EMS0140-AUG20	µg/g	0.01	<0.01	2	20	95	70	130	118	70	130
Chromium	EMS0140-AUG20	µg/g	0.5	<0.5	1	20	96	70	130	121	70	130
Copper	EMS0140-AUG20	µg/g	0.1	<0.1	0	20	97	70	130	113	70	130
Molybdenum	EMS0140-AUG20	µg/g	0.1	<0.1	14	20	91	70	130	117	70	130
Nickel	EMS0140-AUG20	ug/g	0.5	<0.5	1	20	92	70	130	116	70	130
Lead	EMS0140-AUG20	µg/g	0.1	<0.1	0	20	96	70	130	103	70	130
Antimony	EMS0140-AUG20	µg/g	0.8	<0.8	ND	20	100	70	130	103	70	130
Selenium	EMS0140-AUG20	µg/g	0.7	<0.7	ND	20	99	70	130	109	70	130
Thallium	EMS0140-AUG20	µg/g	0.02	<0.02	1	20	100	70	130	108	70	130
Uranium	EMS0140-AUG20	µg/g	0.002	<0.002	8	20	95	70	130	96	70	130
Vanadium	EMS0140-AUG20	µg/g	3	<3	0	20	96	70	130	117	70	130
Zinc	EMS0140-AUG20	µg/g	0.7	<0.7	7	20	95	70	130	112	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	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	84	50	140
alpha-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	82	50	140
Dieldrin	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	83	50	140
Endosulfan I	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	84	50	140
Endosulfan II	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	81	50	140
Endrin	GCM0439-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	85	50	140
gamma-BHC	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	88	50	140	83	50	140
gamma-Chlordane	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	82	50	140
Heptachlor epoxide	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Heptachlor	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	81	50	140
Hexachlorobenzene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	86	50	140	83	50	140
Hexachlorobutadiene	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	78	50	140	77	50	140
Hexachloroethane	GCM0439-AUG20	µg/g	0.01	< 0.01	ND	40	71	50	140	68	50	140
Methoxychlor	GCM0439-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	94	50	140
o,p-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	84	50	140	81	50	140
o,p-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	86	50	140
op-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	82	50	140
pp-DDD	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	81	50	140	79	50	140
pp-DDE	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	88	50	140	87	50	140
pp-DDT	GCM0439-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140

QC SUMMARY

Pesticides (continued)

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	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	93	50	140
alpha-Chlordane	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
Dieldrin	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	95	50	140
Endosulfan I	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	104	50	140	110	50	140
Endosulfan II	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	81	50	140
Endrin	GCM0514-AUG20	µg/g	0.04	< 0.04	ND	40	99	50	140	98	50	140
gamma-BHC	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	93	50	140	96	50	140
gamma-Chlordane	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
Heptachlor epoxide	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	91	50	140	92	50	140
Heptachlor	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	90	50	140	91	50	140
Hexachlorobenzene	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	94	50	140	94	50	140
Hexachlorobutadiene	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	94	50	140	95	50	140
Hexachloroethane	GCM0514-AUG20	µg/g	0.01	< 0.01	ND	40	92	50	140	93	50	140
Methoxychlor	GCM0514-AUG20	µg/g	0.05	< 0.05	ND	40	103	50	140	95	50	140
o,p-DDD	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	96	50	140
o,p-DDE	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	93	50	140
op-DDT	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	93	50	140	89	50	140
pp-DDD	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	91	50	140	98	50	140
pp-DDE	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	92	50	140	91	50	140
pp-DDT	GCM0514-AUG20	µg/g	0.02	< 0.02	ND	40	99	50	140	90	50	140

QC SUMMARY

Pesticides (continued)

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	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	97	50	140
alpha-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Dieldrin	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	100	50	140
Endosulfan I	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	98	50	140
Endosulfan II	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	91	50	140
Endrin	GCM0388-AUG20	µg/g	0.04	< 0.04	ND	40	87	50	140	110	50	140
gamma-BHC	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	94	50	140
gamma-Chlordane	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	87	50	140	98	50	140
Heptachlor epoxide	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	98	50	140
Heptachlor	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	85	50	140	96	50	140
Hexachlorobenzene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachlorobutadiene	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	89	50	140	93	50	140
Hexachloroethane	GCM0388-AUG20	µg/g	0.01	< 0.01	ND	40	87	50	140	91	50	140
Methoxychlor	GCM0388-AUG20	µg/g	0.05	< 0.05	ND	40	88	50	140	102	50	140
o,p-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	85	50	140	106	50	140
o,p-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	101	50	140
op-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	83	50	140	89	50	140
pp-DDD	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	82	50	140	113	50	140
pp-DDE	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	89	50	140	100	50	140
pp-DDT	GCM0388-AUG20	µg/g	0.02	< 0.02	ND	40	86	50	140	89	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)	GCM0392-AUG20	µg/g	10	<10	ND	30	94	80	120	91	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)	GCM0450-AUG20	µg/g	10	<10	ND	30	100	80	120	93	60	140
F3 (C16-C34)	GCM0450-AUG20	µg/g	50	<50	ND	30	100	80	120	93	60	140
F4 (C34-C50)	GCM0450-AUG20	µg/g	50	<50	ND	30	100	80	120	93	60	140



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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	ARD0081-AUG20	pH Units	0.05		0	20	100	80	120			

Polychlorinated Biphenyls

Method: EPA 3570/8082A/8270C | Internal ref.: ME-CA-IENVIGC-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
Polychlorinated Biphenyls (PCBs) - Total	GCM0426-AUG20	µg/g	0.3	< 0.3	ND	40	90	60	140	99	60	140
Polychlorinated Biphenyls (PCBs) - Total	GCM0449-AUG20	µg/g	0.3	< 0.3	ND	40	92	60	140	89	60	140

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
Naphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Phenanthrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Pyrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	96	50	140	95	50	140
1-Methylnaphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	93	50	140	88	50	140
2-Methylnaphthalene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	85	50	140
Acenaphthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Acenaphthylene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	87	50	140	87	50	140
Anthracene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	87	50	140
Benzo(a)anthracene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	89	50	140	93	50	140
Benzo(a)pyrene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	91	50	140	96	50	140
Benzo(b+j)fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	81	50	140	95	50	140
Benzo(ghi)perylene	GCM0421-AUG20	µg/g	0.1	< 0.1	ND	40	89	50	140	70	50	140
Benzo(k)fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	92	50	140	87	50	140
Chrysene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	90	50	140	87	50	140
Dibenzo(a,h)anthracene	GCM0421-AUG20	µg/g	0.06	< 0.06	ND	40	88	50	140	75	50	140
Fluoranthene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	92	50	140	93	50	140
Fluorene	GCM0421-AUG20	µg/g	0.05	< 0.05	ND	40	94	50	140	91	50	140
Indeno(1,2,3-cd)pyrene	GCM0421-AUG20	µg/g	0.1	< 0.1	ND	40	88	50	140	75	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	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	94	50	140
1,1,1-Trichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	94	50	140
1,1,2,2-Tetrachloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	86	50	140
1,1,2-Trichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	90	50	140
1,1-Dichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
1,1-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	96	50	140
1,2-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	89	50	140
1,2-Dichloroethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	89	50	140
1,2-Dichloropropane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	92	50	140
1,3-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	90	50	140
1,4-Dichlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	89	50	140
Acetone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	89	50	140	75	50	140
Benzene	GCM0391-AUG20	µg/g	0.02	< 0.02	ND	50	89	60	130	94	50	140
Bromodichloromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	91	50	140
Bromoform	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	86	60	130	83	50	140
Bromomethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	86	50	140	90	50	140
Carbon tetrachloride	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	93	50	140
Chlorobenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
Chloroform	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	92	50	140
cis-1,2-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	93	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	GCM0391-AUG20	µg/g	0.03	< 0.03	ND	50	91	60	130	85	50	140
Dibromochloromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	88	50	140
Dichlorodifluoromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	74	50	140	74	50	140
Ethylbenzene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
Ethylenedibromide	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	89	50	140
n-Hexane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	95	60	130	79	50	140
m/p-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
Methyl ethyl ketone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	90	50	140	77	50	140
Methyl isobutyl ketone	GCM0391-AUG20	µg/g	0.5	< 0.5	ND	50	92	50	140	85	50	140
Methyl-t-butyl Ether	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	91	60	130	89	50	140
Methylene Chloride	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	88	60	130	92	50	140
o-xylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	95	50	140
Styrene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
Tetrachloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	90	50	140
Toluene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	90	60	130	94	50	140
trans-1,2-Dichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	88	60	130	92	50	140
trans-1,3-dichloropropene	GCM0391-AUG20	µg/g	0.03	< 0.03	ND	50	93	60	130	86	50	140
Trichloroethylene	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	89	60	130	93	50	140
Trichlorofluoromethane	GCM0391-AUG20	µg/g	0.05	< 0.05	ND	50	92	50	140	192	50	140
Vinyl Chloride	GCM0391-AUG20	µg/g	0.02	< 0.02	ND	50	80	50	140	85	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	ESG0068-AUG20	µg/g	0.5	<0.5	ND	20	98	80	120	107	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: Justin Pe
 Received Date: 08/20/20 (mm/dd/yy)
 Received Time: 17:45 (hr: min)
 Cooling Agent Present: Yes No
 Temperature Upon Receipt: (°C) 9.2 Type: Ice
 Custody Seal Present: Yes No
 Custody Seal Inhd: Yes No
 Temperature Upon Receipt: (°C) 9.2 Type: Ice
 LAB LIMS #: CA14587-AC520

REPORT INFORMATION
 Company: DS Geosure Fracts
 Contact: Kristin Olsen
 Address: 6221 Vang Hwy F
Vang, MN 55781
 Phone: _____
 Fax: Kristin.Olsen@dsgeosure.com
 Email: -con

INVOICE INFORMATION
 (same as Report Information)
 Company: _____
 Contact: _____
 Address: _____

Quotation #: _____
 Project #: 20-186-100
 P.O. #: _____
 Site Location/ID: 1500 Bantrel
 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
 *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
 Rest/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium/Fine
 Table _____ MISA
 Soil Volume <350m3 >350m3
 Sewer By-Law: Sanitary Storm
 PWOO MMER
 CCME Other: _____
 MISA
 ODWS Not Reportable *See note

Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PWOO MMER
 CCME Other: _____
 MISA

RECORD OF SITE CONDITION (RSC) YES NO

ANALYSIS REQUESTED
 M & I SVOC PCB PHC VOC Pest Other (please specify)
 Field Filtered (Y/N)
 Metals & Inorganics (Hg, CrVI, CN, Hg, pH, B(HWS), EC, SAR, soil) (Cl, Na-water)
 Full Metals Suite (ICP metals plus B(HWS-soil only) Hg, CrVI)
 ICP Metals only (Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni)
 PAHs only
 SVOCs (all incl PAHs, ABNs, CPs)
 PCBs Total Aroclor
 F1-F4 + BTEX
 F1-F4 only (no BTEX)
 VOCs (all incl BTEX)
 BTEX only
 Pesticides (Organochlorine or specify other)

Appendix 2: 406/19 Leachate Screening Levels Table:
 Sewer Use: Specify pkg:
 Water Characterization Pkg
 General Extended
 DMSI DVOG InCB Bi(a)p DABN DgntL

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED												
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP					
1 SB1-S1	8/20/20	P.M.	5	Soil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2 SB2-S1			2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3 SB3-S1			5		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4 SB4-S1			2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5 TR1-S1			2		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6 D2-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
7 D7-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
8 D9-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
9 D3-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
10 D4-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
11 D6-S3			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
12 D1-S1			1		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Observations/Comments/Special Instructions

Sampled By (NAME): Andou Dark Signature: _____ Date: 08/20/20 (mm/dd/yy)
 Relinquished by (NAME): Andou Dark Signature: _____ Date: 08/20/20 (mm/dd/yy)
 Note: Submission of samples to SGS is acknowledgment that you have been provided directions 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 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

Received By: Sue P

Received By (signature):

Laboratory Information Section - Lab use only

Received Date: 08/12/20 (mm/dd/yy)
 Received Time: 1:45:20 (hr : mm)

Custody Seal Present: Yes No
 Custody Seal Intact: Yes No

Cooling Agent Present: Yes No Type: Ice
 Temperature Upon Receipt (°C): 9.2

LAB LIMS #:

REPORT INFORMATION

INVOICE INFORMATION

Company: DS
 Contact: Kristin Olsen
 Address: 6221 Hwy 7, Unit 16

(same as Report Information)
 Company: _____
 Contact: _____
 Address: _____

Quotation #: _____
 Project #: 20-186-100

P.O. #: _____
 Site Location/ID: 1300 Stone Rd

Phone: _____
 Fax: _____

Phone: _____
 Fax: _____

Email: Kristin.Olsen@sgs.com sk@sgs.com tr@sgs.com tr@sgs.com
 REGULATIONS according to discussion

Specify Due Date: _____
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Regulation 153/04:

Table 1 Res/Park Soil Texture:
 Table 2 Ind/Com Coarse
 Table 3 Agr/Other Medium
 Table Fine

Other Regulations:
 Reg 347/558 (3 Day min TAT)
 PWQO MMER
 CCME Other:
 MISA

Sewer By-Law:
 Sanitary
 Storm
 Municipality: _____

RECORD OF SITE CONDITION (RSC) YES NO

TCLP Specify tests
 TCLP
 DMH
 VOC
 PCB
 B[a]P
 AN
 Light

SAMPLE IDENTIFICATION

1	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1	D18-S1	8:20/20	1	Soil
2	D19-S1			
3	D20-S1			
4	D21-S1			
5	D22-S1			
6	D23-S1			
7	D24-S1			
8	D25-S1			
9	D26-S1			
10	D28-S1			
11	D27-S1			
12	D29-S1			

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics incl Cr,VI, CN,Hg pH,(B)(HWS),EC,SAR-soil (Cl, Na-water)							
Full Metals Suite ICP metals plus B(HWS-soil only) Hg, Cr,VI							
ICP Metals only Sb,As,Ba,Bi,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Ti,U,V,Zn							
PAHs only							
SVOCs all incl PAHs, ABNs, CPs							
PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>							
F1-F4 + BTEX							
F1-F4 only no BTEX							
VOCs all incl BTEX							
BTEX only							
Pesticides Organochlorine or specify other							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							

COMMENTS:

Observations/Comments: Special Instructions

Sampled By (NAME): Adrian Park
 Requisitioned by (NAME): Adrian Park

Signature: _____
 Signature: _____

Date: 08/12/20 (mm/dd/yy)
 Date: 08/12/20 (mm/dd/yy)

Pink Copy - Client
 Yellow & White Copy - SGS

Revision 1: 12
 Date of Issue: 09 Sept. 2019
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Appendix D

