

# **Phase Two Environmental Site Assessment**

“Area 2”

Part of 1300, 1316, and 1342 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:** 2023-07-14



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## Executive Summary

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DS Consultants Ltd. (DS) was retained by Bronte River LP to complete a Phase Two Environmental Site Assessment (ESA) of a Site comprised of a portion of the municipal addresses: 1300, 1316, and 1342 Bronte Road, Oakville, Ontario, identified as “Area 2” and herein 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 in support of 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 8.3-hectare parcel of land, 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 located on the Phase One Property included an orchard along the northern side of the driveway in the southern portion of the Site. One (1) garage used for vehicle and general storage was located within the southwestern portion of the Site (Shed 2). One (1) small stormwater retention pond (Pond 2) was located within the southwestern corner of the Site. One (1) diesel AST was observed adjacent to Shed 2;
- ◆ The portion of 1316 Bronte Road located on the Phase One Property consisted of vacant land covered by grass/mixed vegetation;
- ◆ The portion of 1342 Bronte Road located on the Phase One Property consisted of vacant and covered by grass/mixed vegetation.

The Phase One ESA completed in previously by DS identified that majority of the Site was historically operated as an orchard, prior to the 1930s to the mid-1980s. 1342 Bronte Road was utilized for residential purposes from the 1930s until the present. 1300 and 1316 Bronte Road were utilized for residential purposes from the 1990s. The Phase Two Property is currently vacant, and also contains a remnant of the historic orchard at 1300 Bronte Road.

The Phase One ESA indicated that a total of nineteen (19) PCAs were identified on the Phase One Property and within the Phase One Study Area, of which eight (8) PCAs are considered

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to be contributing to eight (8) APECs in, on, or under the Phase Two Property. A summary of the APECs, associated PCAs, and contaminants of potential concern (COPCs) identified are 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	Northern Portion of the Phase One Property	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-1	OCPs, metals As, Sb, Se, CN-	Soil
APEC-2A	North-eastern portion of the Property, within current orchard	#N/S – Impacted Soil – Soil-Mat (2020) sample S3, associated with a depth of 0.1 mbgs	On Site PCA-2A	DDE Arsenic Lead	Soil
APEC-2B	North-eastern portion of the Property, within current orchard	#N/S – Impacted Soil - Soil-Mat (2020) sample S4 & 5 taken at the same location, associated with a depth of 0.1 mbgs and 0.2-0.3 mbgs respectively	On Site PCA-2B	DDE Arsenic Lead	Soil
APEC-2C	North-eastern portion of the Property, within current orchard	#N/S – Impacted Soil - Soil-Mat (2020) sample S6, associated with a depth of 0.1 mbgs	On Site PCA-2C	DDE Arsenic	Soil
APEC-3	Diesel AST in the vicinity of Shed 2	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-3	PHCs, PAHs, VOCs, BTEX	Soil and groundwater
APEC-4	East adjacent to Pond 2	#55 – Transformer Manufacturing, Processing and Use	On Site PCA-4	PHCs	Soil
APEC-5	Area south adjacent to the residential dwelling at 1316 Bronte Road.	#28 – Gasoline and associated products storage in fixed tanks	Off-Site PCA-8	PHCs, BTEX, PAHs	Groundwater
APEC-6	North Portion of the Site	#30 – Fill Material of Unknown Origin	On-Site PCA-15	Metals, As, Sb, Se, B-HWS,	Soil

Area of Potential Environmental Concern	Location of Area of Potential Environmental Concern on Phase One Property	Potentially Contaminating Activity	Location of PCA (on-site or off-site)	Contaminants of Potential Concern	Media Potentially Impacted (Ground water, soil and/or sediment)
				CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	

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 five (5) boreholes, which were completed on August 13, 2020. The boreholes were advanced to a maximum depth of 6.7 metres below ground surface (mbgs) under the supervision of DS personnel. Groundwater monitoring wells were installed in three (3) 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 delineation of the DDE, arsenic and lead impacts identified and to assess the soil quality with respect to APECs 2A, 2B and 2C. A total of seventeen (17) hand-augered boreholes were completed within the limits of the Phase Two Property. Seven (7) of the aforementioned boreholes were advanced to a depth of 0.5 mbgs to assess the vertical extent of the residual pesticide impacts in soil (APEC-1), and a single borehole (TR1) located immediately downgradient of the onsite transformer advanced to a depth of 0.1 mbgs (APEC 4).

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 1 QAQC duplicate) for analysis of metals and hydride forming metals
- ◆ One (1) soil sample for analysis of metals and ORPs
- ◆ Three (3) soil samples for analysis of PHCs F1-F4
- ◆ Two (2) soil samples for analysis of VOCs
- ◆ One (1) soil sample for analysis of PAHs
- ◆ Twenty-six (26) soil samples (including 3 QAQC duplicates) for analysis of OC Pesticides
- ◆ One (1) soil sample for analysis of PCBs



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

- ◆ Four (4) groundwater samples (including 2 QAQC duplicates) for analysis of metals and ORPs
- ◆ Three (3) groundwater samples (including 1 QAQC duplicate) for analysis of PHCs F1-F4
- ◆ Three (3) groundwater samples (including 1 QAQC duplicate and 1 trip blank) for analysis of BTEX
- ◆ Two (2) groundwater samples (including 1 trip blank) for analysis of VOCs
- ◆ Three (3) groundwater samples (including 1 QAQC duplicate) for analysis of PAHs
- ◆ One (1) groundwater sample for analysis of OC Pesticides

The Phase Two Property adjoins two Areas of Natural Significance – 1) the Bronte Creek Provincial Park Natural Reserve Zone, an Area of Natural and Scientific Interest located to the west and south of the Site, and 2) an Ontario Greenbelt, including a Natural Heritage System (Greenbelt Reference Square 99) which is protected as per O. Reg. 59/05 and is located south, west and north of the Site. In accordance with Section 41 of O.Reg 153/04, the MECP Table 1 Site Condition Standards (SCS) are applicable to the Site located within 30 m of the Areas of Natural Significance.

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. 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, extending to depths ranging from 2.3 mbgs to 6.0 mbgs. A lower layer of sand and gravel was found in borehole BH20-14 below the sandy silt till deposits, extending to the termination depth of the borehole. Cohesive deposits of silty clay and clayey silt till were encountered in all boreholes below the upper cohesionless

deposits, extending to maximum drilled depths of BH20-1 to BH20-3 and underlain by sandy silt till deposits in other boreholes. Sandy silt till deposits were encountered below the cohesive deposits in boreholes BH20-4, BH20-13 and BH20-14, extending to depths ranging from 6.0 mbgs to 6.7 mbgs. Boreholes BH20-4 and BH20-13 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 three (3) monitoring wells installed during the course of this investigation. The groundwater levels were found to range between 0.75 to 2.71 mbgs, with corresponding elevations of 127.51 to 130.23 metres above sea level (masl). Based on the groundwater elevations calculated, the shallow groundwater flow direction on the Site is interpreted to be west/southwest 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.
- ◆ The results of the soil chemical analyses identified trace concentrations of OCPs and metals in the topsoil in the northeastern portion of the Site. Elevated concentrations of metals and OC Pesticides in excess of the applicable Site Condition Standards were identified as follows:

**Table E-2: Summary of Soil Impacts Identified**

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
D1 S1	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
D5 S1	0 - 0.1	Arsenic	µg/g	18	<b>34</b>
		Lead	µg/g	120	<b>150</b>
D12 S1	0 - 0.1	Arsenic	µg/g	18	<b>24</b>
D14 S1	0 - 0.1	Arsenic	µg/g	18	<b>30</b>
		Lead	µg/g	120	<b>150</b>
D16 S1	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
SDUP7	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
D18 S1	0 - 0.1	Arsenic	µg/g	18	<b>21</b>
D1 S1	0 - 0.1	DDE	µg/g	0.05	<b>0.45</b>
D4 S3	0.3-0.5		µg/g	0.05	<b>0.17</b>

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
D5 S1	0 - 0.1		µg/g	0.05	<b>0.45</b>
D6 S3	0.3-0.5		µg/g	0.05	<b>0.06</b>
D8 S1	0 - 0.1		µg/g	0.05	<b>0.31</b>
D10 S1	0 - 0.1		µg/g	0.05	<b>0.39</b>
D12 S1	0 - 0.1		µg/g	0.05	<b>0.44</b>
D14 S1	0 - 0.1		µg/g	0.05	<b>0.48</b>
D16 S1	0 - 0.1		µg/g	0.05	<b>0.31</b>
D18 S1	0 - 0.1		µg/g	0.05	<b>0.54</b>
MW20-3 SS1	0-0.6		µg/g	0.05	<b>0.21</b>
BH20-4 SS1	0-0.6		µg/g	0.05	<b>0.28</b>

Notes:

**0.0** – Concentration Exceeds Table 1 SCS

- ◆ The results of the chemical analyses conducted indicated that all of the groundwater samples analyzed met the applicable Site Condition Standards.

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

- ◆ The results of this Phase Two ESA indicate that the applicable Site Condition Standards for soil have not been met for soil. Soil impacts (DDE, Lead, and Arsenic) attributed to historic pesticide use were identified in topsoil in the northeastern portion of the Phase Two Property. The vertical extent of the soil impacts is interpreted to be 0.5 mbgs based on the findings to date. The soil impacts appear to be localized within general vicinity of the existing orchard.
- ◆ The soil impacts identified may be managed through excavation and off-site disposal followed by confirmatory soil sampling in accordance with the requirements of O.Reg. 153/04 (as amended). The remedial excavation activity will be required before a Record of Site Condition may be filed for the Site (if required).
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

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## **1.0 Introduction**

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DS Consultants Ltd. (DS) was retained by Bronte River LP to complete a Phase Two Environmental Site Assessment (ESA) of a portion of 1300, 1316 and 1342 Bronte Road, Oakville, Ontario, identified as “Area 2” and herein 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 in support of 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 property use (residential) 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 (APEC) identified in the Phase One ESA.

### **1.1 Site Description**

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The Phase Two Property is an 8.3-hectare parcel of land comprised of part of three (3) separate properties with the municipal addresses of: 1300, 1316 and 1342 Bronte Road. The Site is situated within a 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 located on the Phase One Property included an orchard along the northern side of the driveway in the eastern portion of the Site. One (1) garage used for vehicle and general storage was located within the southeastern portion of the Site (Shed 2). One (1) small stormwater retention pond (Pond 2) was located within the southwestern corner of the Site. One (1) diesel AST was observed adjacent to Shed 2;

- ◆ The portion of 1316 Bronte Road located on the Phase One Property consisted of vacant land covered by grass/mixed vegetation;
- ◆ The portion of 1342 Bronte Road located on the Phase One Property consisted of vacant and covered by grass/mixed vegetation.

For the purposes of this report, Upper Middle Rd. 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 1 and 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>1342 Bronte Rd</u> PT LT 31, CON 2 TRAFALGAR, SOUTH OF DUNDAS STREET, PART 2, 20R2730; OAKVILLE/TRAFALGAR	Chain of Title
Property Identification Number (PIN)	<u>1300 Bronte Rd</u> 24926-0038 <u>1316 Bronte Rd</u> 24926-0037 <u>1342 Bronte Rd</u> 24926-0035	Chain of Title
Municipal Address	Part of 1300, 1316, and 1342 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>1342 Bronte Rd</u> ED – Existing Development N- Natural Area	By-law 2014-014 Town of Oakville
Site Area	8.3 hectare	GIS
Centroid UTM Coordinates	Northing: 4807851.00 m N Easting: 600955.00 m E	Google Earth

Criteria	Information	Source
	Zone: 17T	

## 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 L7M 0W7	Julian Pompeo julian@argoland.com

## 1.3 Current and Proposed Future Use

The Phase Two Property is currently used for residential purposes. 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 MECP Table 1, as follows:

- ◆ Table 1 SCS: Full Depth Generic Site Condition Standards 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 1 SCS".

The selection of the Table 1 SCS is considered appropriate based on the following rationale:

- ◆ The Phase Two Property adjoins two Areas of Natural Significance:
  - The Bronte Creek Provincial Park Natural Reserve Zone, an Area of Natural and Scientific Interest located to the west and south of the Site; and
  - The Ontario Greenbelt, including a Natural Heritage System (Greenbelt Reference Square 99) which is protected as per O. Reg 59/05 and is located south, west and north of the Site.

In accordance with Section 41 of O.Reg 153/04, the MECP Table 1 Site Condition Standards (SCS) are applicable to the portions of the Site which are located within 30 m of the Areas of Natural Significance.

## **2.0 Background Information**

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### **2.1 Physical Setting**

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#### **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 30 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 the west and southwest side of the Site is directly adjacent to an Area of Natural and Scientific Interest (ANSI) designated as the *Bronte Creek Provincial Park Natural Reserve Zone*.

The western and southern border of the Phase Two Property is directly adjacent to the Ontario Greenbelt, including a Natural Heritage System (Greenbelt Reference Square 99) which is protected as per O. Reg 59/05.

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 MNR, 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. Since the nearest body of water, Bronte Creek is located within 30m of the Site, one (1) pond was observed and the Site is within 30m of a woodland and Bronte Creek Provincial Park, it is anticipated that these species may be found in the Phase One Study Area, and may provide a viable habitat for such species.

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.

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

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

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

natural significance associated with the Bronte Creek Provincial Park is illustrated on Figure 2.

### **2.1.2 Topography and Surface Water Draining Features**

The topography of the Phase Two Property is generally flat, with a surface elevation of 130 masl. The topography within the Phase Two Study Area generally slopes to the southwest, towards Bronte Creek, which is the nearest body of water, located approximately 30 metres to the west of the Phase Two Property. Based on a review of the MECP well records, the depth to groundwater in the vicinity of the Phase Two Property is approximately 8-12 mbgs. The shallow groundwater flow direction within the Phase Two Study Area is inferred to be west/southwest towards Bronte Creek.

The Site is situated within a South Slope physiographic region. The surficial geology within the Phase Two 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 (discussed in detail below), the bedrock in the Phase Two Study Area is anticipated to be encountered at an approximate depth range of 6.1 to 12.2 mbgs.

## **2.2 Past Investigations**

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### **2.2.1 Previous Report Summary**

DS completed a Phase One ESA in March 2022, 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 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.

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 1 SCS: Full Depth Background Site Condition Standards for all property uses other than agricultural (Table 1 SCS), and;

The analytical data provided in the previous reports were compared to the Table 1 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) boreholes 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 encountered 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. It should be noted that the Soil-Mat report was completed on the entirety of 1300, 1316 and 1342 Bronte Road, and as such included both “Area 1” and “Area 2”.

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.
- ◆ 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-5**);
  - One (1) heating fuel AST was observed in the basement of 1326 Bronte Road (**PCA-6**);
  - One (1) heating fuel AST was observed in the basement of 1342 Bronte Road (**PCA-7**);
  - One (1) heating fuel AST was observed on the exterior ground adjacent to the eastern wall of the dwelling at 1316 Bronte Road (**PCA-8**);
- ◆ 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-9**); and
- ◆ An orchard formerly operated across the majority of the Site (**PCA-1**); 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. DS notes that the dwelling at 1300 Bronte Road is not located on the Phase One Property.

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 OCs 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 (**PCA-15**) and;
- Four (4) heating fuel ASTs were observed. Due to visual evidence, the ASTs were not considered to contribute to an APEC. DS notes that the fuel oil ASTs observed were all located off-Site of the current Phase One Property boundary.

### **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, OCs, arsenic and lead on the Phase One Property, and the results are presented below.

The results of the chemical analyses indicated the following exceedances of the Table 1 SCS:

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

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
S3	0.0-0.1	DDE	µg/g	0.05	<b>0.85</b>
		Arsenic	µg/g	11	<b>33</b>
		Lead	µg/g	45	<b>156</b>
S4	0.0-0.1	DDE	µg/g	0.05	<b>0.84</b>
		Arsenic	µg/g	11	<b>31</b>
		Lead	µg/g	45	<b>163</b>
S5	0.2-0.3	DDE	µg/g	0.05	<b>1.0</b>
		DDD	µg/g	0.05	<b>0.052</b>
		Arsenic	µg/g	11	<b>38</b>
		Lead	µg/g	45	<b>189</b>
S6	0.0-0.1	DDE	µg/g	0.05	<b>0.44</b>
		Arsenic	µg/g	11	<b>31</b>
		Lead	µg/g	45	<b>149</b>

Notes: **0.0** – Exceeds Table 1 SCS

Soil-Mat concluded that residual Organochlorine Pesticide (OCP) components are present on the southeast portion of the Site (**PCA-2a, 2b, 2c**), thus additional sampling is warranted to further delineate the horizontal extent of the adverse impacts with OCPs in the topsoil and near surface soil.

The data obtained from within the limits of the Phase Two Property have been retained within this report.

### **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-5:** One (1) heating fuel AST was observed in the basement of 1300 Bronte Road;
  - **PCA-6:** One (1) heating fuel AST was observed in the basement of 1326 Bronte Road;

- **PCA-7:** One (1) heating fuel AST was observed in the basement of 1342 Bronte Road;
- **PCA-8:** One (1) heating fuel AST was observed on the exterior ground adjacent to the eastern wall of the dwellings at 1316 Bronte Road.
- ◆ #40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications:
  - **PCA-1:** An orchard used to operate on the majority of the Site and a remnant portion remains present;
- ◆ #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 northeastern 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-2a:** Sample S3;
  - **PCA-2b:** Sample S4 and S5;
  - **PCA-2c:** Sample S6.

### **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.

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**

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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**

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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 five (5) boreholes on the Phase Two Property, to an approximate depth of 6.7 mbgs. Three (3) of the boreholes were instrumented with groundwater monitoring wells upon completion, on August 13, 2020. 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 for the purpose of delineating the DDE impacts identified and to assess APECs 2A, 2B, and 2C. Seventeen (17) hand-augered boreholes were completed within the limits of the Phase Two Property. Seven (7) of the aforementioned boreholes were advanced to a depth of 0.5 mbgs to assess the vertical extent of the residual pesticide impacts in soil. Lastly, hand augered borehole TR1 was advanced adjacent to the onsite transformer to a maximum depth of 0.1 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	A total of five (5) boreholes were advanced on the Phase Two Property, to an approximate depth of 6.7 mbgs. Additionally, eighteen (18) hand-augered boreholes were advanced to depths ranging from 0.1 to 0.5 mbgs. Soil samples were collected and submitted for analysis of all relevant PCOCs.
Groundwater	A total of three (3) monitoring wells were present on the Phase Two Property at the time of the investigation. Representative groundwater samples were collected from each monitoring well and submitted for analysis of all relevant PCOCs.

## 3.3 Phase One Conceptual Site Model

A Conceptual Site Model was developed for the Phase One Property, located at Part of 1300, 1316, and 1342 Bronte Road, Oakville, Ontario. The Phase One Conceptual Site Model is presented in Figures 2, 3A, 3B, and 4 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	#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. A remnant of the orchard is still present and utilized for subsistence purposes within the eastern portion of the Site.	PCA is on the Phase One Property.
2a	#40 - Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	Environmental testing (Soil-Mat, 2020) identified pesticide (DDE), arsenic and lead impacted soil within the existing on-Site orchard (sample S3, associated with a depth of 0.1 mbgs) which exceeded the applicable SCS (MECP Table 2).	PCA is on the Phase One Property.
2b		Environmental testing (Soil-Mat, 2020) identified pesticide (DDE and DDD), arsenic and lead impacted soil within the existing on-Site orchard (sample S4 & 5 taken at the same location, associated with a depth of 0.1 mbgs and 0.2-0.3 mbgs respectively) which exceeded the applicable SCS (MECP Table 2).	
2c		Environmental testing (Soil-Mat, 2020) identified pesticide (DDE), arsenic and lead impacted soil within the existing on-Site orchard (sample S6, associated with a depth of 0.1 mbgs) which exceeded the applicable SCS (MECP Table 2).	

PCA Item.	PCA Description (Per. Table 2, Schedule D of O.Reg. 153/04)	Description	Rationale
3	#28 – Gasoline and associated products storage in fixed tanks	One (1) diesel tank with a 1,360-gallon capacity and which appeared to be in good condition, but without secondary containment, was located adjacent to Shed within the eastern portion of the Site.	PCA is on the Phase One Property.
4	#55 – Transformer Manufacturing, Processing and Use	One transformer was observed to present east of Pond 2.	PCA is on the Phase One Property.
8	#28 – Gasoline and associated products storage in fixed tanks	One (1) fuel oil AST utilized for heating was observed on the eastern exterior wall of residential dwelling at 1316 Bronte Road.	PCA is located immediately adjacent to the Phase One Property.
15	#30 – Importation of Fill Material of Unknown Origin	A soil berm located within the central portion of the Site was comprised of fill material generated from the widening of Bronte Road.	PCA is on the Phase One Property.

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

### 3.3.1 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 OCs.

### 3.3.2 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 is inferred to be approximately 8-12 metres below ground surface, therefore the utility corridors are expected to be well above the water table and would not act as preferential pathways for contaminant distribution and transport in the event that shallow subsurface contaminants exist at the Phase One Property.

### 3.3.3 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 30 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.

#### **3.3.4 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 City Directory request. If the 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.



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### 3.4 Deviations from Sampling and Analysis Plan

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

### 3.5 Impediments

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

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## 4.0 Investigation Method

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### 4.1 General

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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

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A site visit was conducted prior to drilling in order to identify the borehole locations based on the APECs identified in the Phase One ESA. The selected borehole locations are presented on Figure 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.	DS Consultants (Hand Auger)
Boreholes Drilled	MW20-1, BH20-3, BH20-4, BH20-13 and BH20-14	D1, D3 to D6, D8, D10, D12 to D14, D16, D18, D24 to D28 and TR1

Parameter	Details	
Drilling Dates	August 12 to August 14, 2020	August 20, 2020
Drilling Equipment Used	Truck-mounted CME 55	Hand-Auger
Measures taken to minimize the potential for cross contamination	<ul style="list-style-type: none"> <li>◆ 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;</li> <li>◆ Soil samples were extracted from the interior of the sampler rather than from areas in contact with the sampler sidewalls;</li> <li>◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.</li> </ul>	<ul style="list-style-type: none"> <li>◆ The hand auger was brushed free of debris in between samples and rinsed with a combination ofalconox and distilled water.</li> <li>◆ Use of dedicated and disposable nitrile gloves for the handling of soil samples. A new set of gloves was used for each sample.</li> </ul>
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 the D-series were collected at intervals of 0.1, 0.3 and 0.5 mbgs. TR1 was collected at 0.1 mbgs.

### 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**

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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**

<b>Parameter</b>	<b>Details</b>
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

Parameter	Details
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 +/- 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 three (3) 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 and on May 8, 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 in order to determine whether stabilized geochemical conditions had been established in the monitoring well, indicating representative groundwater conditions.

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

#### **4.7 Groundwater Sampling**

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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**

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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**

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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**

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##### **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

Media	Parameter	Sample Container
	PAHs OCPs	250 mL amber glass bottle (unpreserved)
	Inorganics	500 mL high density polyethylene bottle (unpreserved)
Groundwater	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 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 rational 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**

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### **5.1 Geology**

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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. 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, extending to depths ranging from 2.3 mbgs to 6.0 mbgs. A lower layer of sand and gravel was found in borehole BH20-14 below the sandy silt till deposits, extending to the termination depth of the borehole. These deposits were water bearing and found in a very loose to compact state, with occasional very dense layers.

Cohesive deposits of silty clay and clayey silt till were encountered in all boreholes below the upper cohesionless deposits, extending to maximum drilled depths of BH20-1 to BH20-3 and underlain by sandy silt till deposits in other boreholes. These deposits were found to generally have a firm to stiff consistency with occasional very stiff to hard layers.

Sandy silt till deposits were encountered below the cohesive deposits in boreholes BH20-4, BH20-13 and BH20-14, extending to depths ranging from 6.0 mbgs to 6.7 mbgs. Boreholes



BH20-4 and BH20-13 were terminated in sandy silt till deposit. The sandy silt till deposits were found in a dense to very dense state.

Bedrock was not encountered within any of the boreholes, per Terraprobe (2016), shale bedrock was encountered from 6.1 to 12.2 mbgs, or from an elevation of between 124.9 and 117.6 masl, within the far western portion of the property.

**Table 5-1: Summary of Geologic Units Investigated**

<b>Geologic Unit</b>	<b>Inferred Thickness (m)</b>	<b>Top Elevation (masl)</b>	<b>Bottom Elevation (masl)</b>	<b>Properties</b>
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	124.5	123.9	Saturated

## **5.2 Ground Water Elevations and Flow Direction**

### **5.2.1 Rationale for Monitoring Well Location and Well Screen Intervals**

The monitoring wells were generally positioned within portions of the Site in which APECs were identified, but also in consideration of concurrent geotechnical and hydrogeological investigations. The monitoring wells were screened to intersect the first water bearing formation encountered, in order to allow for the assessment of LNAPL, and to provide information regarding the quality of the groundwater at the water table.

### **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 0.75 to 2.71 mbgs on May 5, 2023. There was no indication of DNAPL or LNAPL in the monitoring wells at this time.

### **5.2.3 Product Thickness and Free Flowing Product**

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

#### **5.2.4 Groundwater Elevation**

The groundwater elevation was calculated by subtracting the depth to groundwater from the surface elevation determined by the surface elevation survey conducted as part of this investigation. A summary of the groundwater elevations calculated is presented in Table 1 (Enclosed). Generally, the groundwater elevation was found to range from 127.51 to 130.23 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 on the Phase Two Property is interpreted to be east/southeast toward Bronte Creek.

The groundwater elevation contours and flow direction are presented on Figure 5.

#### **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 0.75 to 2.71 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**

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#### **5.3.1 Horizontal Hydraulic Gradient**

The horizontal hydraulic gradient was calculated based on the groundwater levels recorded on May 5, 2023.

**Table 5-2: Summary of Horizontal Hydraulic Gradient Calculations**

Hydrogeological Unit	Calculated Horizontal Hydraulic Gradient
Overburden – (sandy silt to silty sand till)	Minimum: 0.00750 Average: 0.01173 Maximum: 0.01596

### 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

Not Applicable – there is no distinction within Table 1 for medium-fine vs. coarse textured soils.

### 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
BH20-1 SS5	0	15	78	7	Medium-fine
BH20-1 SS8	8	29	48	15	Medium-fine
BH20-3 SS5	2	13	72	13	Medium-fine
BH20-13 SS5	1	9	82	8	Medium-fine

### 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 6G. The laboratory certificates of analysis have been provided under Appendix C.

### 5.6.1 Metals and ORPs

Seventeen (17) samples (including 1 QAQC duplicate) were submitted for analysis of metals and hydride forming metals. One (1) sample was submitted for analysis of the full metals and inorganics package.

The results of the analyses are tabulated in Tables 5 (enclosed), and presented on Figures 6A and 6B. The results of the analyses indicated the following exceedances of the Table 1 SCS:

**Table 5-4: Summary of Metals and ORPs Exceedances in Soil**

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
D1 S1	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
D5 S1	0 - 0.1	Arsenic	µg/g	18	<b>34</b>
		Lead	µg/g	120	<b>150</b>
D12 S1	0 - 0.1	Arsenic	µg/g	18	<b>24</b>
D14 S1	0 - 0.1	Arsenic	µg/g	18	<b>30</b>
		Lead	µg/g	120	<b>150</b>
D16 S1	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
SDUP7	0 - 0.1	Arsenic	µg/g	18	<b>20</b>
D18 S1	0 - 0.1	Arsenic	µg/g	18	<b>21</b>

### 5.6.2 Petroleum Hydrocarbons

A total of three (3) samples were submitted for analysis of PHCs. The results of the analyses are tabulated in Tables 6 (enclosed) and presented on Figure 6C. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

### 5.6.3 Volatile Organic Compounds

A total of two (2) samples were submitted for analysis of VOCs. The results of the analyses are tabulated in Table 7 (enclosed) and presented on Figure 6D. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

### 5.6.4 Polycyclic Aromatic Hydrocarbons

A total of one (1) sample, was submitted for analysis of PAHs. The results of the analyses are tabulated in Table 8 (enclosed) and presented on Figure 6E. The results of the chemical analyses conducted indicated that all samples analyzed met the applicable Site Condition Standards.

### 5.6.5 OC Pesticides

A total of twenty-six (26) samples, including three (3) field duplicates for QA/QC purposes were submitted for analysis of OCPs. The results of the analyses are tabulated in Tables 9 (enclosed) and presented on Figure 6F. The results of the analyses indicated the following exceedances of the Table 1 SCS:

**Table 5-5: Summary of OCPs Exceedances in Soil**

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
D1 S1	0 - 0.1	DDE	µg/g	0.05	<b>0.45</b>
D4 S3	0.3-0.5		µg/g	0.05	<b>0.17</b>
D5 S1	0 - 0.1		µg/g	0.05	<b>0.45</b>
D6 S3	0.3-0.5		µg/g	0.05	<b>0.06</b>
D8 S1	0 - 0.1		µg/g	0.05	<b>0.31</b>
D10 S1	0 - 0.1		µg/g	0.05	<b>0.39</b>
D12 S1	0 - 0.1		µg/g	0.05	<b>0.44</b>
D14 S1	0 - 0.1		µg/g	0.05	<b>0.48</b>

Sample ID	Sample Depth (mbgs)	Parameter	Units	Table 1 SCS	Reported Value
D16 S1	0 - 0.1		µg/g	0.05	<b>0.31</b>
D18 S1	0 - 0.1		µg/g	0.05	<b>0.54</b>
MW20-3 SS1	0-0.6		µg/g	0.05	<b>0.21</b>
BH20-4 SS1	0-0.6		µg/g	0.05	<b>0.28</b>

### 5.6.6 PCBs

One (1) sample within 30 m of an Area of Natural Significance was submitted for analysis of PCBs. The results of the analyses are tabulated in Table 10 (enclosed), and presented on Figure 6G. The results of the chemical analyses conducted indicated that the sample analyzed met the applicable Site Condition Standards.

### 5.6.7 Commentary on Soil Quality

No evidence of chemical or biological transformations of the parameters analyzed was observed.

In general, surficial soil impacts associated with historical pesticide use (OCP, lead and arsenic impact) were found to be present across the majority of the existing orchard area located in the northeastern portion of the Site and extending to Bronte Road. The soil impacts (OCPs, lead and arsenic) were found to extend to a maximum depth of 0.6 mbgs in boreholes MW20-3 SS1 BH20-4 located within the existing orchard area associated with 1300 Bronte Road. Based on the limited depth of impact it is anticipated that the impacted topsoil can be managed through excavation and off-site disposal.

## 5.7 Ground Water Quality

The results of the chemical analyses conducted are presented in Tables 11 through 15 (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 four (4) samples, including two (2) field duplicates for QA/QC purposes were submitted for analysis of metals and ORPs. The results of the analyses are tabulated in Table 11 (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 three (3) samples, including one (1) field duplicate for QA/QC purposes, were submitted for analysis of PHCs. The results of the analyses are tabulated in Table 12 (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 one (1) trip blank for QA/QC purposes were submitted for analysis of VOCs. Additionally, three (3) groundwater samples, including one (1) QAQC duplicate and one (1) trip blank, were submitted for analysis of BTEX. The results of the analyses are tabulated in Table 13 (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 three (3) 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 14 (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) samples was submitted for analysis of OCPs. The results of the analyses are tabulated in Table 15 (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 1 Standards for the parameters of concern as identified in the Phase One ESA.

## **5.8 Sediment Quality**

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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 5-6: Summary of QA/QC Results**

Sample ID	QA/QC duplicate	Medium	Parameter Analyzed	QA/QC Result
D16 S1	SDUP7	Soil	Metals	All results were within the analytical protocol criteria for RPD
D26 S1	SDUP8	Soil	OCPs	All results were within the analytical protocol criteria for RPD
D27 S1	SDUP9	Soil	OCPs	All results were within the analytical protocol criteria for RPD
D28 S1	SDUP10	Soil	OCPs	All results were within the analytical protocol criteria for RPD
MW20-1	DUP1	Groundwater	Metals & ORPs	All results were within the analytical protocol criteria for RPD
MW20-3	DUP2	Groundwater	Metals	All results were within the analytical protocol criteria for RPD
MW20-3	DUP1	Groundwater	PHCs, BTEX, 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

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This Phase Two ESA involved that advancement of five (5) boreholes, the installation of three (3) 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, OCPs and PCBs.

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

- ◆ The results of this Phase Two ESA indicate that the applicable Site Condition Standards for soil have not been met for soil. Soil impacts (DDE, Lead, and Arsenic) attributed to historic pesticide use were identified in topsoil in the northeastern portion of the Phase Two Property. The vertical extent of the soil impacts is interpreted to be 0.5 mbgs based on the findings to date. The soil impacts appear to be localized within general vicinity of the existing orchard.
- ◆ The soil impacts identified may be managed through excavation and off-site disposal followed by confirmatory soil sampling in accordance with the requirements of O.Reg. 153/04 (as amended). The remedial excavation activity will be required before a Record of Site Condition may be filed for the Site (if required).
- ◆ The results of this Phase Two ESA indicate that the applicable Site Condition Standards for groundwater have been met.
- ◆ All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

## **6.1 Qualifications of the Assessors**

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### **Fahmida Anwar, B.Sc.**

Ms. Anwar is a Project Coordinator with DS Consultants Ltd. Fahmida holds a Bachelor of Science in Chemical Engineering from the American University of Sharjah (United Arab Emirates), as well as a Post Graduate Certificate in Environmental Control from Sheridan College. Ms. Anwar has been working in the environmental sector since 2018 and has experience conducting Phase One and Phase Two Environmental Site Assessments.

### **Kirstin Olsen, MSc.**

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

### **Mr. Patrick (Rick) Fioravanti, B.Sc., P.Geo., QP<sub>ESA</sub>**

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

## 6.2 Signatures

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This Phase Two ESA was conducted under the supervision of Mr. Rick Fioravanti, B.Sc., P.Geo., QP<sub>ESA</sub> 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:



Fahmida Anwar, B.Sc.  
Project Coordinator

Reviewed by:



Kirstin Olsen, M.Sc.  
Environmental Project Manger



Rick Fioravanti, B.Sc., P.Geo., QP<sub>ESA</sub>  
Manager – Environmental Services



### **6.3 Limitations**

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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 Part of 1300, 1316, and 1342 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

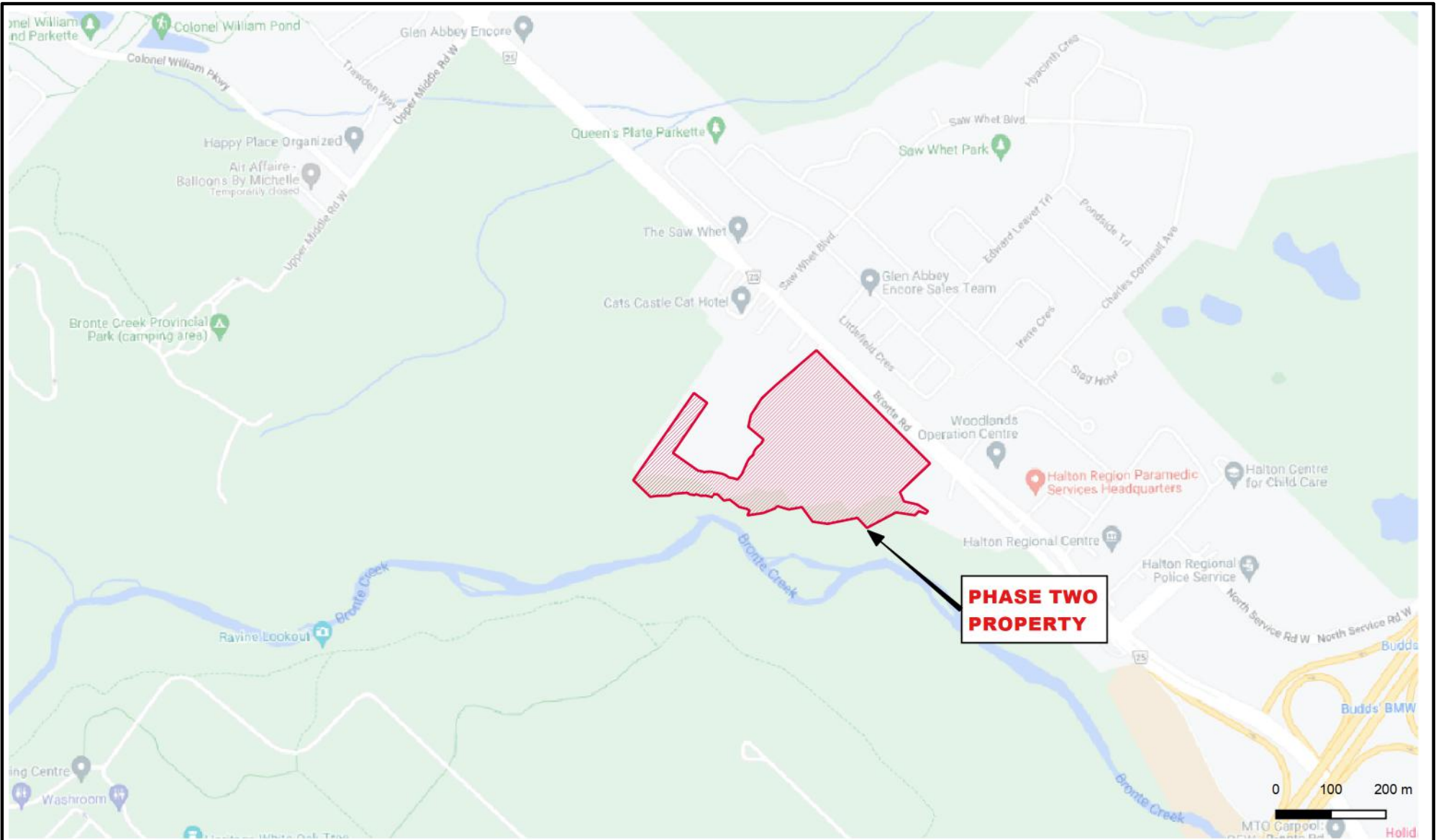
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- ◆ Armstrong, D.K. and Dodge, J.E.P. *Paleozoic Geology Map of Southern Ontario*. Ontario Geological Survey, Miscellaneous Release--Data 219.
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- ◆ Freeze, R. Allen and Cherry, John A., 1979. *Ground water*. Page 29.
- ◆ Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.
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- ◆ 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.



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# Figures



**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  
 Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON

**Title:** **SITE LOCATION PLAN**



**Client:**  
 ARGO DEVELOPMENT

**Size:**  
 8.5 x 11

**Rev:**  
 0

**Approved By:** R.F

**Scale:** As Shown

**Image/Map Source:** Google Street Map

**Drawn By:** P.P.

**Project No.:** 20-186-100

**Date:** July 2023



**Figure No.:** 1



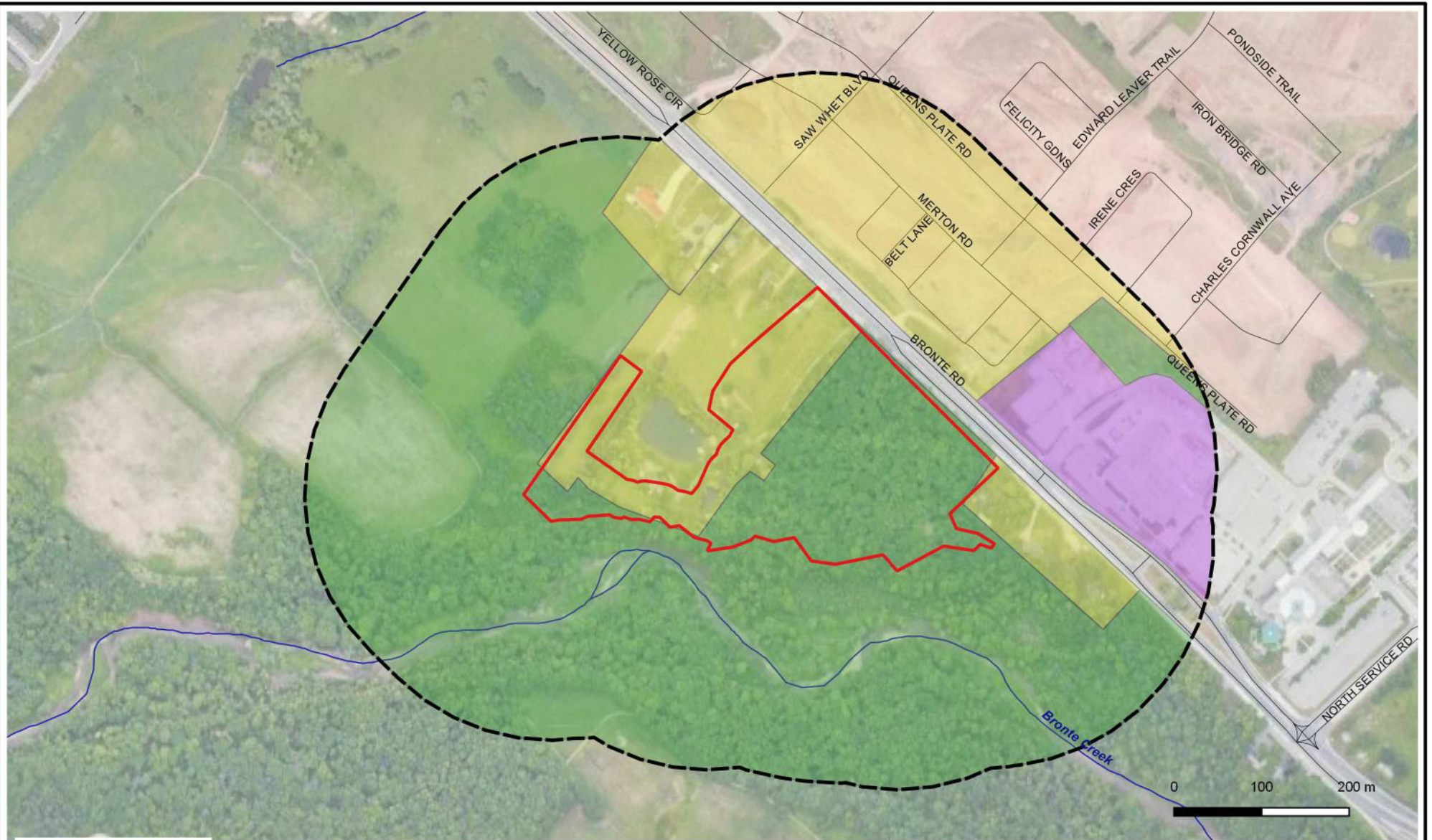


**Legend**

- Property Boundary
- Current Orchard
- Natural Reserve
- Greenbelt Area
- Approx Berm Location
- Fuel Oil AST
- Diesil AST

 <p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON				
	Title: <b>PHASE TWO PROPERTY SITE PLAN</b>				
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.: <b>2</b>
Image/Map Source: Google Satellite Image					





**Legend**

- Property Boundary
- 250m Buffer
- Institutional Use
- Parkland Use
- Residential Use



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 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: **ARGO DEVELOPMENT**

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

Title: **PHASE ONE STUDY AREA**

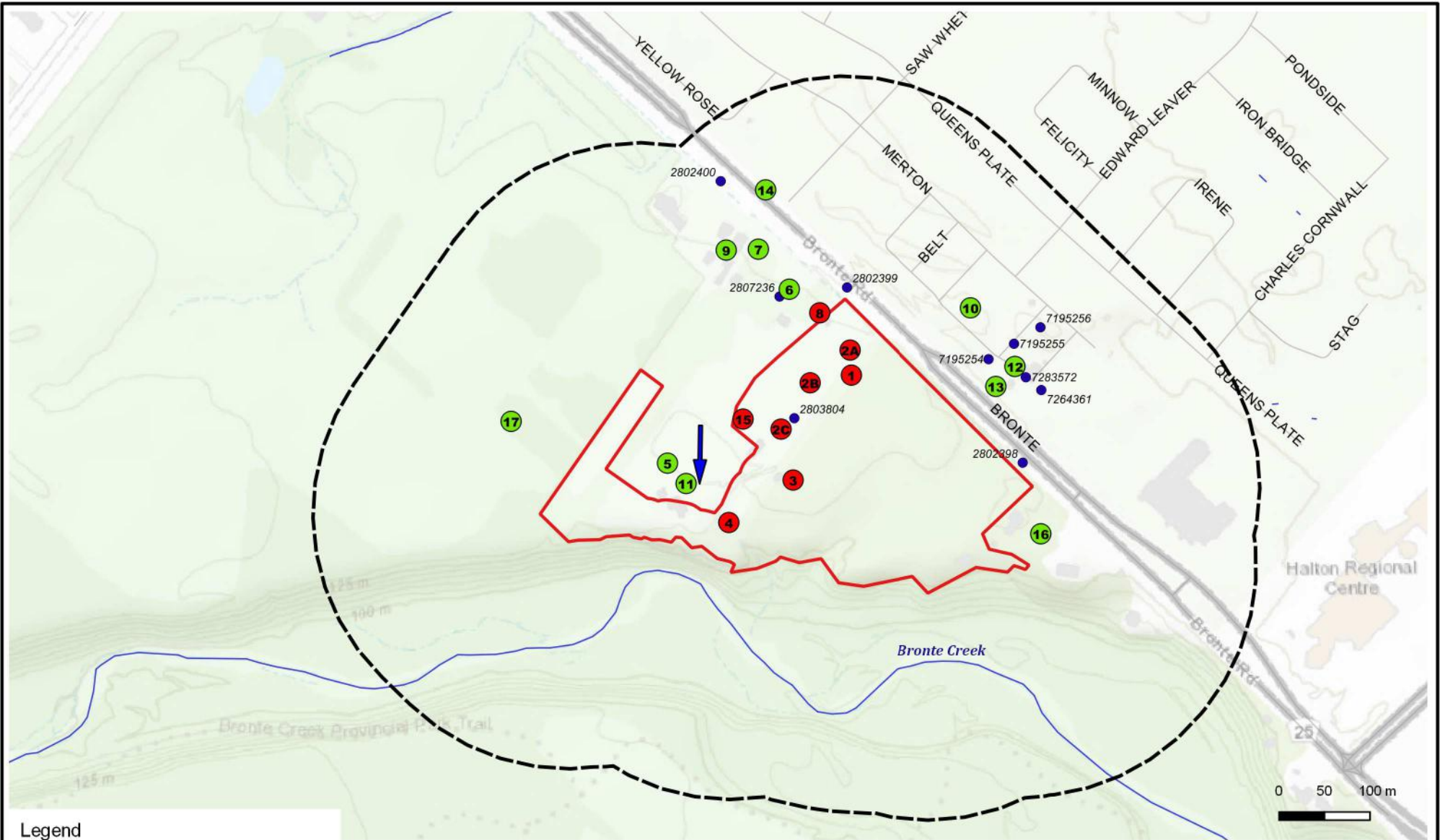


Size: 8.5 x 11	Approved By: R.F	Drawn By: S.Y / P.P.	Date: July 2023
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Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: <b>3A</b>
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Image/Map Source: Google Satellite Image



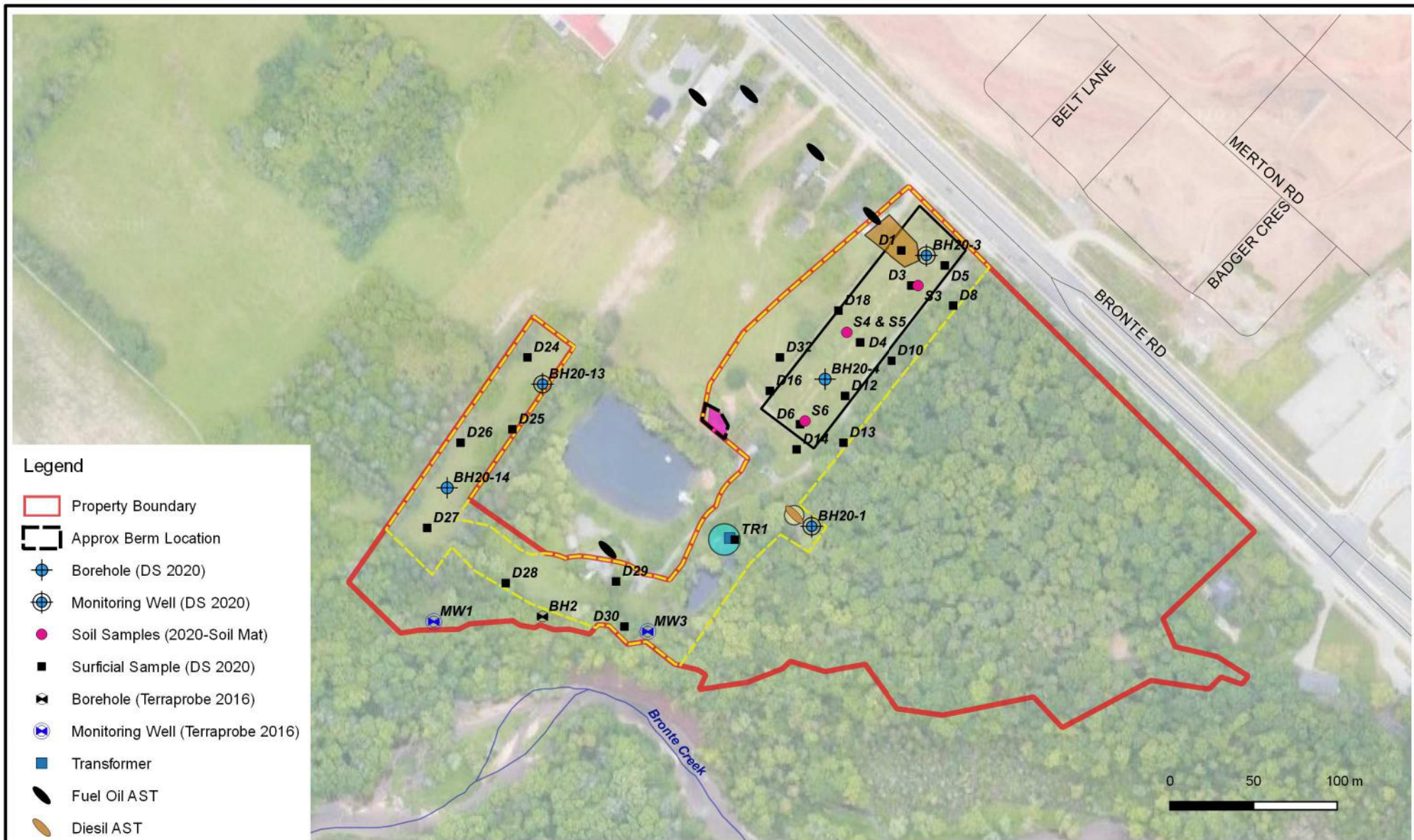


**Legend**



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

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

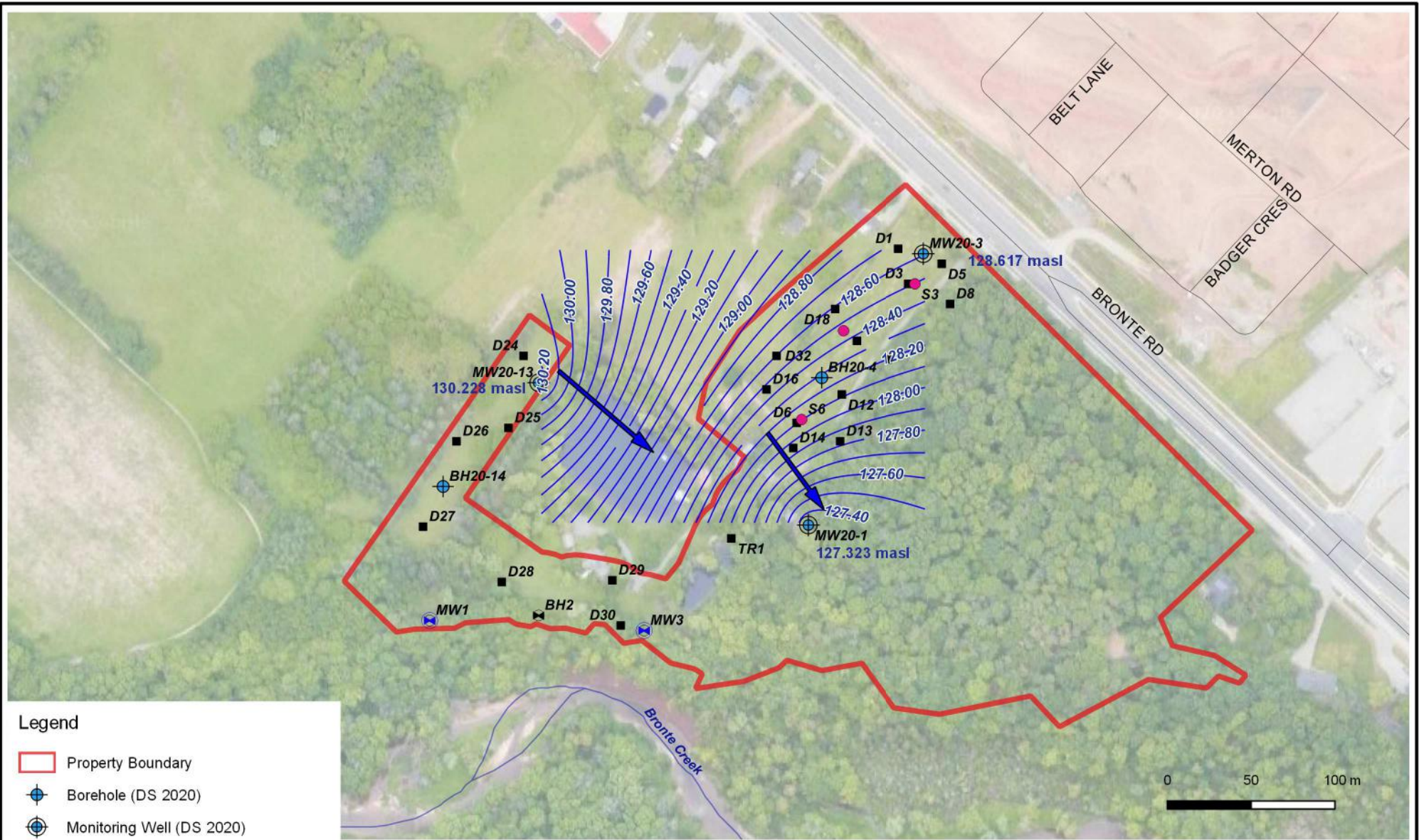




- Legend**
- Property Boundary
  - Approx Berm Location
  - ⊕ Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊗ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Transformer
  - Fuel Oil AST
  - Diesil AST
  - APEC-1
  - APEC-2A,2B and 2C
  - APEC-3
  - APEC-4
  - APEC-5
  - APEC-6

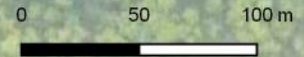
 <p><b>DS CONSULTANTS LTD.</b>                  6221 Highway 7, UNIT 16                  Vaughan, Ontario L4H 0K8                  Telephone: (905) 264-9393                  www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON			
	Title: <b>BOREHOLE LOCATION PLAN WITH APECs</b>			
Client:  <b>ARGO DEVELOPMENT</b>	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.: <b>4</b>
	Image/Map Source: Google Satellite Image			







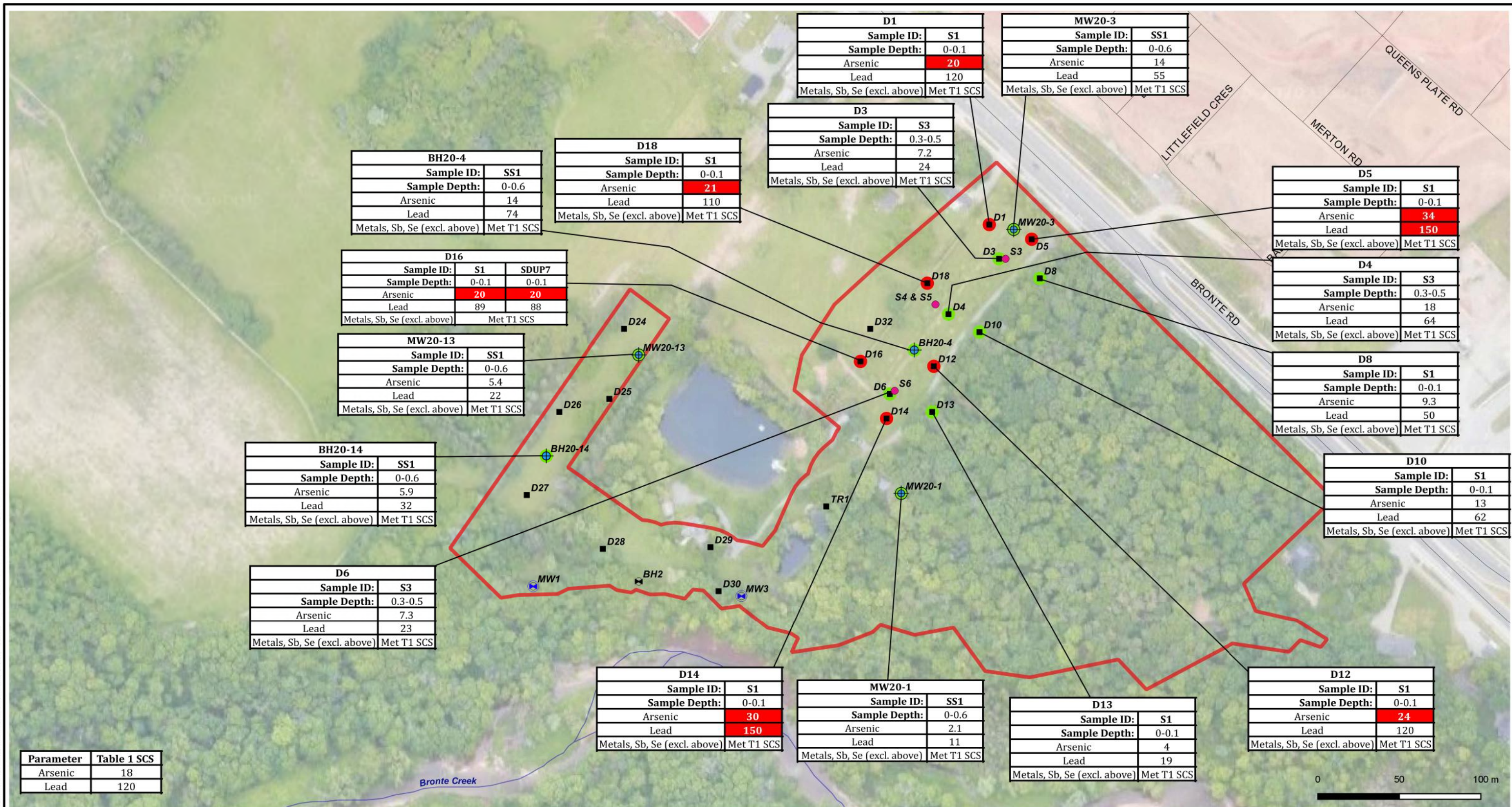
**Legend**

- Property Boundary
- ⊕ Borehole (DS 2020)
- ⊗ Monitoring Well (DS 2020)
- Soil Samples (2020-Soil Mat)
- Surficial Sample (DS 2020)
- ⊗ Borehole (Terraprobe 2016)
- ⊗ Monitoring Well (Terraprobe 2016)
- Groundwater Elevation Contours
- ➔ Interpreted Groundwater Flow Direction



 <p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, UNIT 16 Vaughan, Ontario L4H 0K8 Telephone: (905) 264-9393 www.dsconsultants.ca</p>	Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON			
	Title: <b>GROUNDWATER ELEVATION CONTOURS AND FLOW DIRECTION</b>			
Client: <b>ARGO DEVELOPMENT</b>	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.: <b>5</b>
Image/Map Source: Google Satellite Image				





- Legend**
- Property Boundary
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Sample Exceeded Applicable Standards
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards
  - Sample Exceeded Applicable Standards

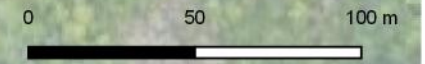
**DS CONSULTANTS LTD.**  
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 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: **ARGO DEVELOPMENT**

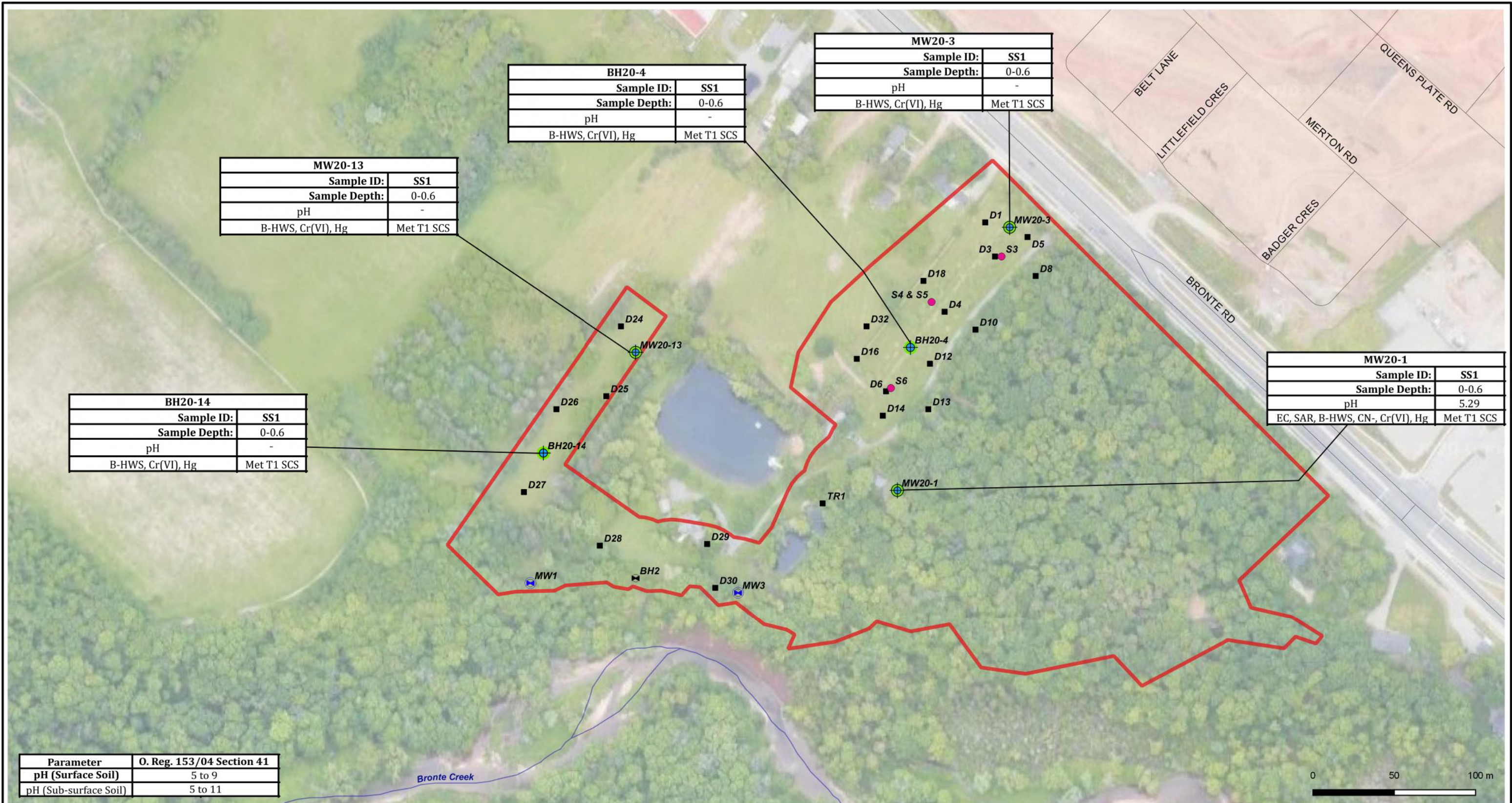
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT  
 Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON

Title: **SUMMARY OF METALS AND HYDRIDE-FORMING METAL IMPACTS IN SOIL**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>6A</b>
Image/Map Source: Google Satellite Image							







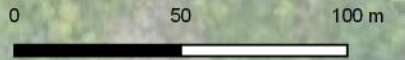
BH20-14	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	-
B-HWS, Cr(VI), Hg	Met T1 SCS

BH20-4	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	-
B-HWS, Cr(VI), Hg	Met T1 SCS

MW20-3	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	-
B-HWS, Cr(VI), Hg	Met T1 SCS

MW20-1	
Sample ID:	SS1
Sample Depth:	0-0.6
pH	5.29
EC, SAR, B-HWS, CN-, Cr(VI), Hg	Met T1 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)
- + Borehole (Terraprobe 2016)
- + Monitoring Well (Terraprobe 2016)
- Sample Met Applicable Standards



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Client: **ARGO DEVELOPMENT**

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

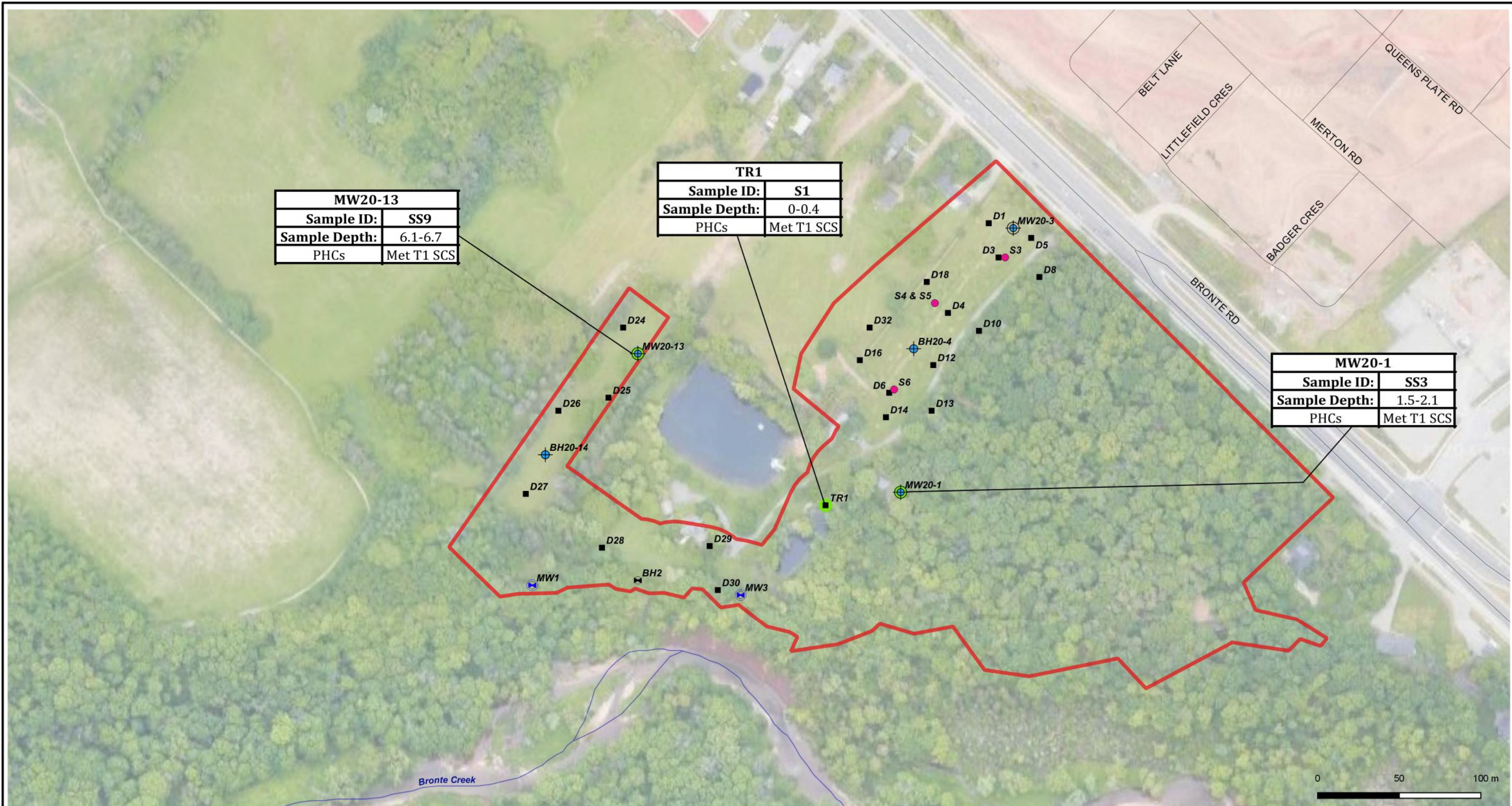
Title: **SUMMARY OF ORPs IN SOIL**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>6B</b>
Image/Map Source: Google Satellite Image							





J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 6C - Summary of PHCs in Soil.ags Jul-05 11:04



MW20-13	
Sample ID:	SS9
Sample Depth:	6.1-6.7
PHCs	Met T1 SCS

TR1	
Sample ID:	S1
Sample Depth:	0-0.4
PHCs	Met T1 SCS

MW20-1	
Sample ID:	SS3
Sample Depth:	1.5-2.1
PHCs	Met T1 SCS

**Legend**

- Property Boundary
- ⊕ Borehole (DS 2020)
- ⊕ Monitoring Well (DS 2020)
- Soil Samples (2020-Soil Mat)
- Surficial Sample (DS 2020)
- ⊗ Borehole (Terraprobe 2016)
- ⊕ Monitoring Well (Terraprobe 2016)
- Sample Met Applicable Standards

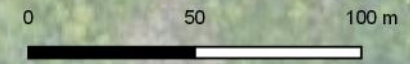
**DS CONSULTANTS LTD.**  
 6221 Highway 7, UNIT 16  
 Vaughan, Ontario L4H 0K8  
 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: **ARGO DEVELOPMENT**

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

Title: **SUMMARY OF PHCs IN SOIL**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>6C</b>
Image/Map Source: Google Satellite Image							





J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 6D - Summary of VOCs in Soil.ags Jul-05 11:06



MW20-13	
Sample ID:	SS9
Sample Depth:	6.1-6.7
VOCs	Met T1 SCS

MW20-1	
Sample ID:	SS4
Sample Depth:	2.3-2.9
VOCs	Met T1 SCS

- Legend**
- Property Boundary
  - + Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Sample Met Applicable Standards
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)

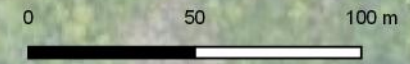
**DS CONSULTANTS LTD.**  
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 Telephone: (905) 264-9393  
 www.dsconsultants.ca

Client: **ARGO DEVELOPMENT**

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

Title: **SUMMARY OF VOCs IN SOIL**

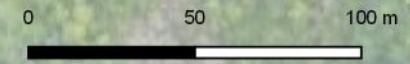
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Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>6D</b>
Image/Map Source: Google Satellite Image							







MW20-1	
Sample ID:	SS3
Sample Depth:	1.5-2.1
PAHs	Met T1 SCS



- Legend**
- Property Boundary
  - ⊕ Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards

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Client: **ARGO DEVELOPMENT**

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

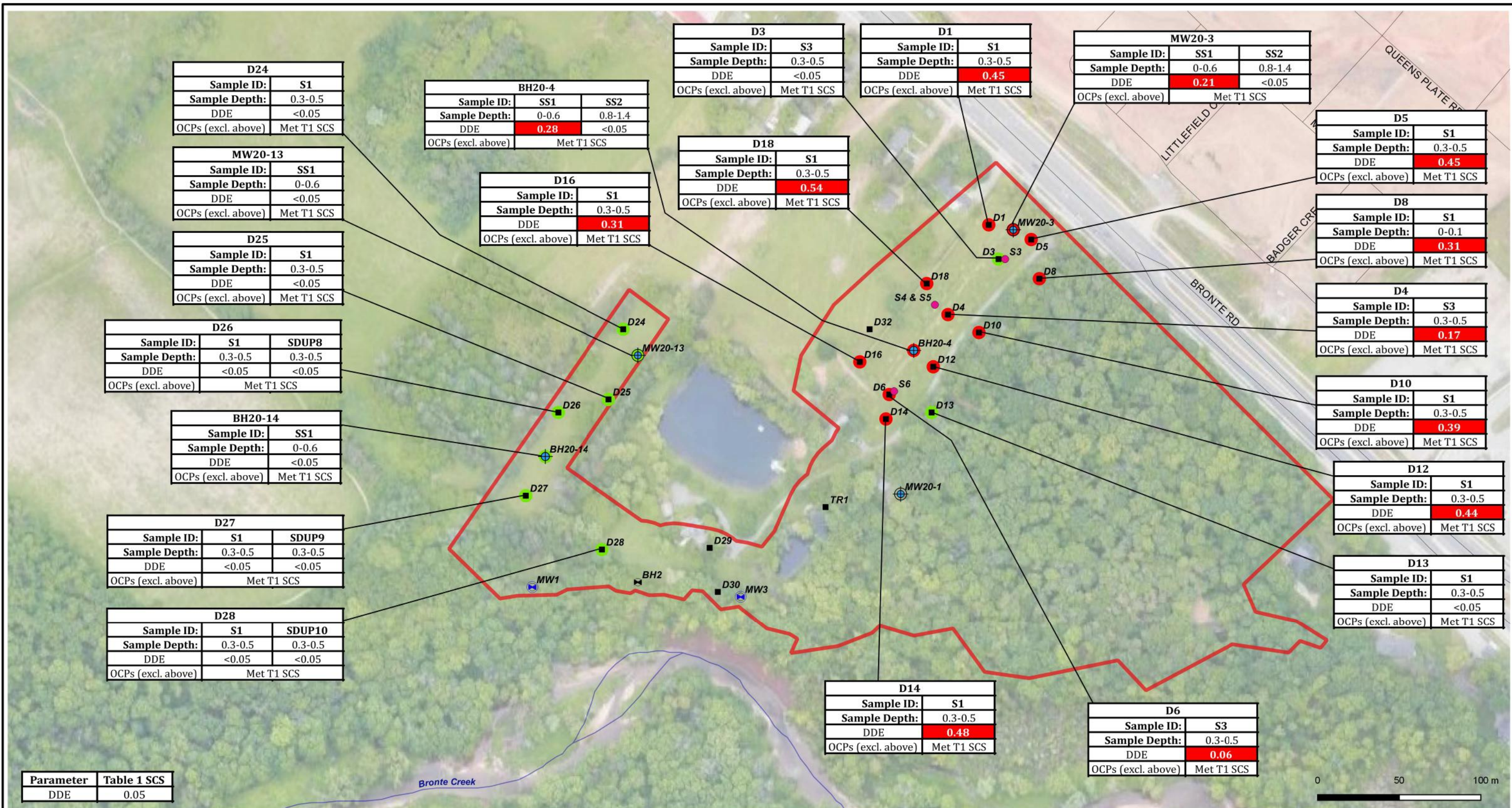
Title: **SUMMARY OF PAHs IN SOIL**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>6E</b>
Image/Map Source: Google Satellite Image							





J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\RSC Area 2\Phase Two\Figure 6F - Summary of OCPs in Soil.ags Jul-05 11:26



Parameter	Table 1 SCS
DDE	0.05

- Legend**
- Property Boundary
  - + Borehole (DS 2020)
  - + Borehole (Terraprobe 2016)
  - + Monitoring Well (DS 2020)
  - + Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards
  - Sample Exceeded Applicable Standards
  - Surficial Sample (DS 2020)

D3	
Sample ID:	S3
Sample Depth:	0.3-0.5
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

D1	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.45
OCPs (excl. above)	Met T1 SCS

MW20-3		
Sample ID:	SS1	SS2
Sample Depth:	0-0.6	0.8-1.4
DDE	0.21	<0.05
OCPs (excl. above)	Met T1 SCS	

D24	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

BH20-4		
Sample ID:	SS1	SS2
Sample Depth:	0-0.6	0.8-1.4
DDE	0.28	<0.05
OCPs (excl. above)	Met T1 SCS	

D18	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.54
OCPs (excl. above)	Met T1 SCS

D16	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.31
OCPs (excl. above)	Met T1 SCS

MW20-13	
Sample ID:	SS1
Sample Depth:	0-0.6
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

D25	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

D5	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.45
OCPs (excl. above)	Met T1 SCS

D8	
Sample ID:	S1
Sample Depth:	0-0.1
DDE	0.31
OCPs (excl. above)	Met T1 SCS

D4	
Sample ID:	S3
Sample Depth:	0.3-0.5
DDE	0.17
OCPs (excl. above)	Met T1 SCS

D10	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.39
OCPs (excl. above)	Met T1 SCS

D12	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.44
OCPs (excl. above)	Met T1 SCS

D13	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

D26		
Sample ID:	S1	SDUP8
Sample Depth:	0.3-0.5	0.3-0.5
DDE	<0.05	<0.05
OCPs (excl. above)	Met T1 SCS	



BH20-14	
Sample ID:	SS1
Sample Depth:	0-0.6
DDE	<0.05
OCPs (excl. above)	Met T1 SCS

D27		
Sample ID:	S1	SDUP9
Sample Depth:	0.3-0.5	0.3-0.5
DDE	<0.05	<0.05
OCPs (excl. above)	Met T1 SCS	

D28		
Sample ID:	S1	SDUP10
Sample Depth:	0.3-0.5	0.3-0.5
DDE	<0.05	<0.05
OCPs (excl. above)	Met T1 SCS	

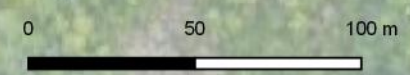
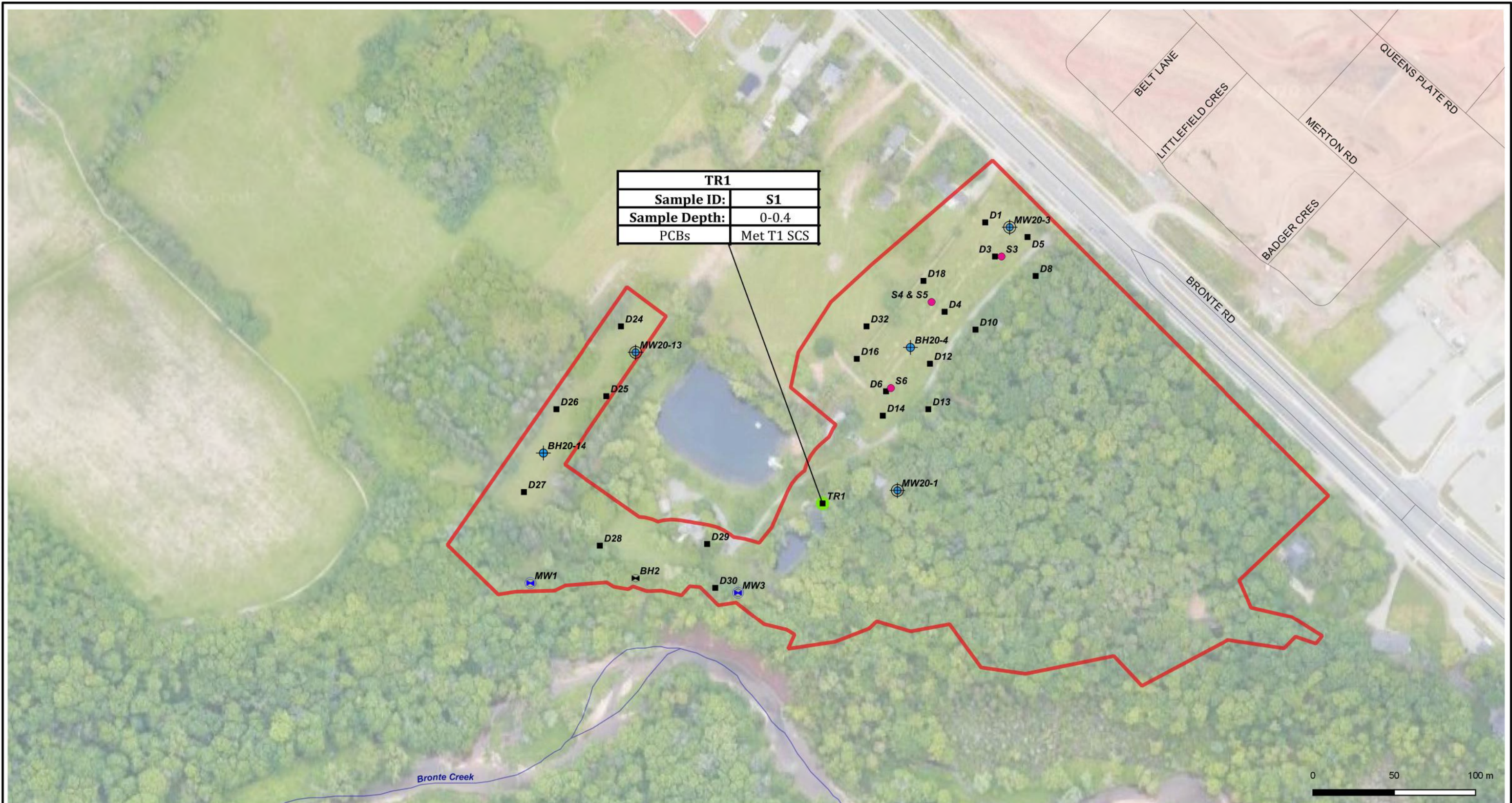
D14	
Sample ID:	S1
Sample Depth:	0.3-0.5
DDE	0.48
OCPs (excl. above)	Met T1 SCS

D6	
Sample ID:	S3
Sample Depth:	0.3-0.5
DDE	0.06
OCPs (excl. above)	Met T1 SCS

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	Title: <b>SUMMARY OF OCPs IN SOIL</b>			
Client: ARGON DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: July 2023
	Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: <b>6F</b>
Image/Map Source: Google Satellite Image				



J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 6G - Summary of PCBs in Soil.ags Jul-05 11:28



**Legend**

- Property Boundary
- ⊕ Borehole (DS 2020)
- ⊕ Monitoring Well (DS 2020)
- Soil Samples (2020-Soil Mat)
- Sample Met Applicable Standards
- Surficial Sample (DS 2020)
- ⊕ Borehole (Terraprobe 2016)
- ⊕ Monitoring Well (Terraprobe 2016)

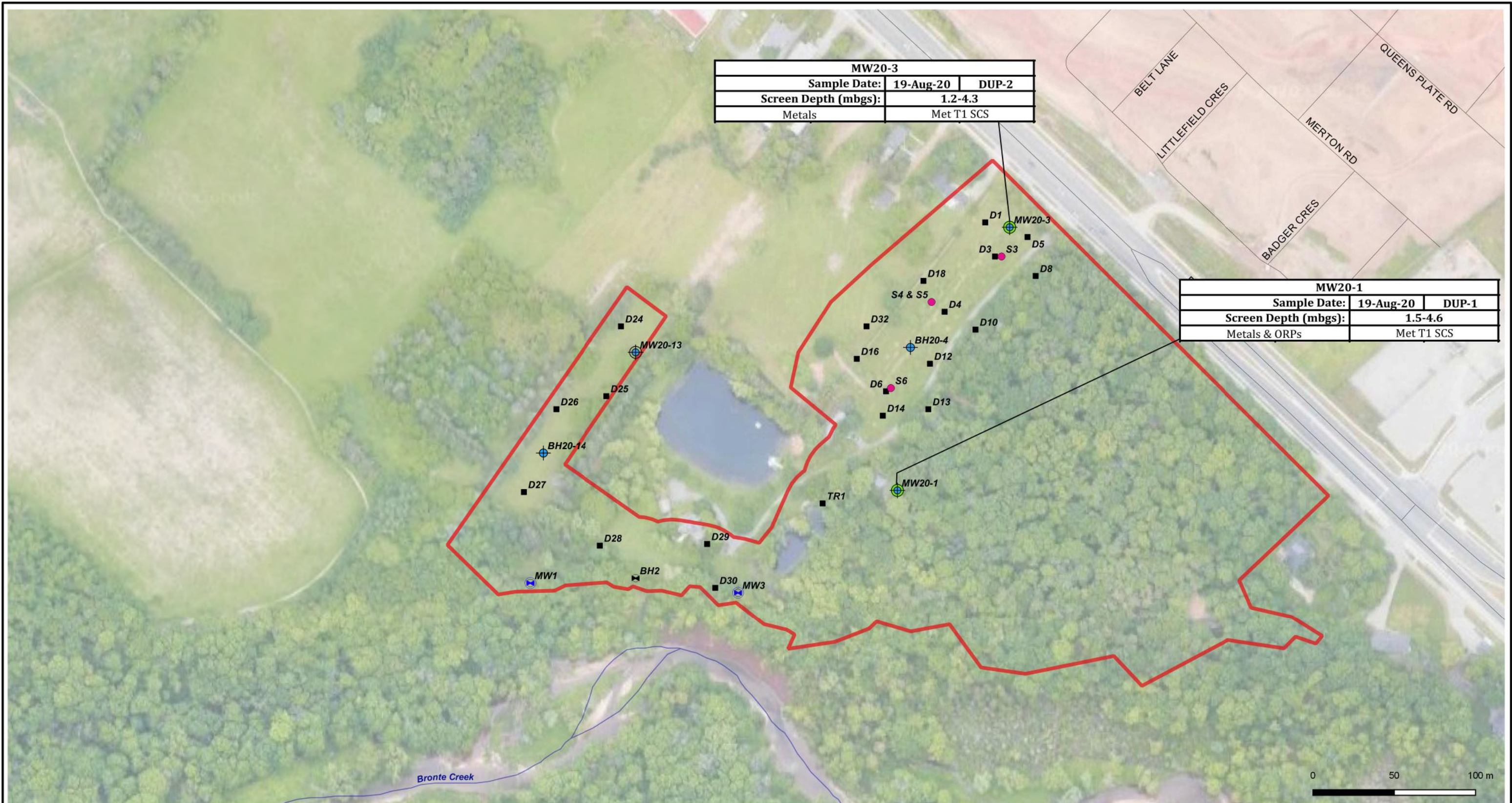


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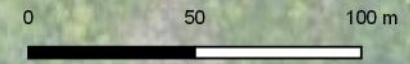
Project: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON			
Title: <b>SUMMARY OF PCBs IN SOIL</b>			
Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: July 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: <b>6G</b>
Image/Map Source: Google Satellite Image			





MW20-3		
Sample Date:	19-Aug-20	DUP-2
Screen Depth (mbgs):	1.2-4.3	
Metals	Met T1 SCS	

MW20-1		
Sample Date:	19-Aug-20	DUP-1
Screen Depth (mbgs):	1.5-4.6	
Metals & ORPs	Met T1 SCS	



- Legend**
- Property Boundary
  - ⊕ Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards

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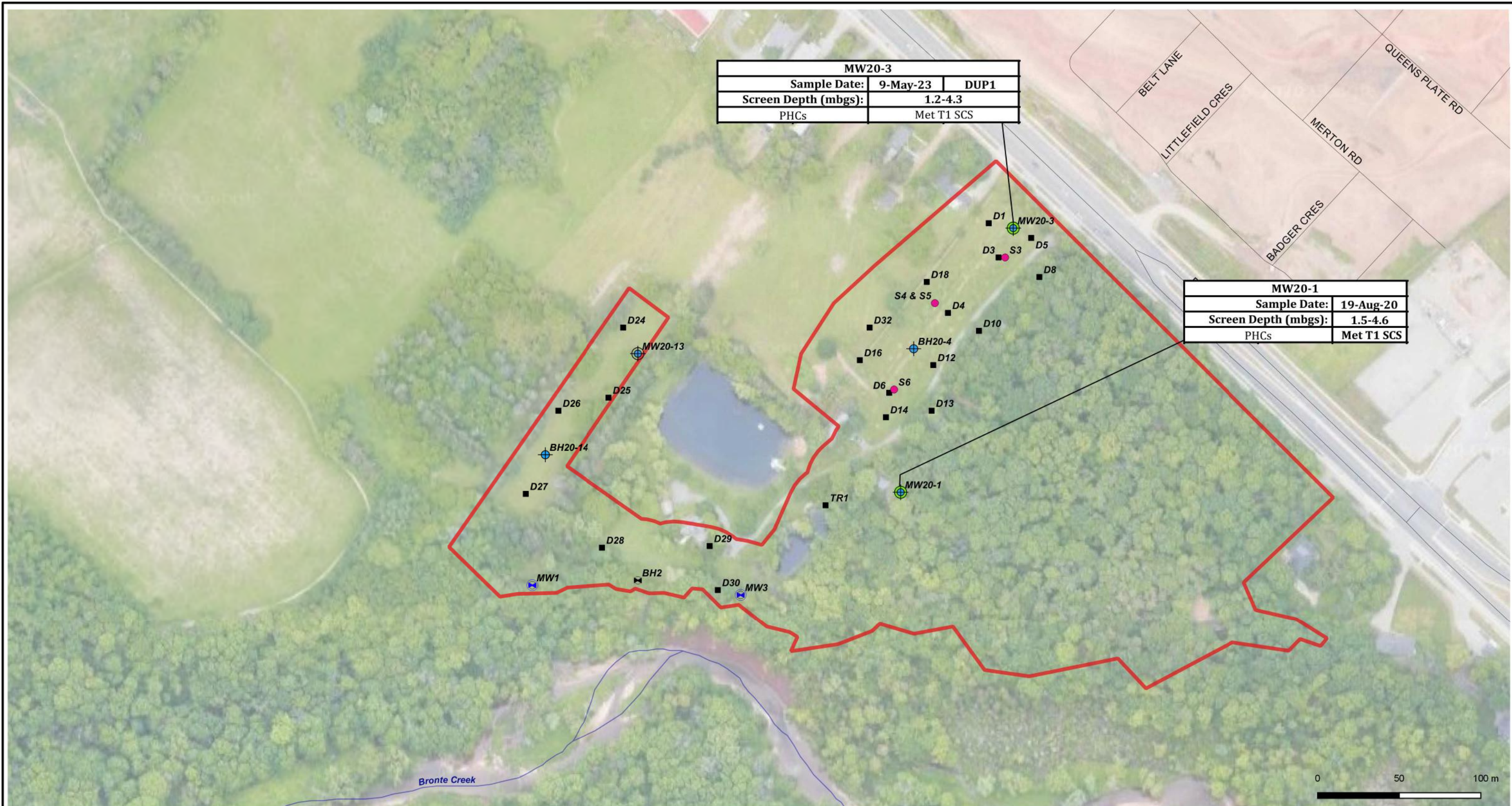
Title: **SUMMARY OF METALS & ORPs IN GROUNDWATER**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>7A</b>
Image/Map Source: Google Satellite Image							





J:\-GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 7B - Summary of PHCs in Groundwater.qgs Jul-05 11:33



MW20-3		
Sample Date:	9-May-23	DUP1
Screen Depth (mbgs):	1.2-4.3	
PHCs	Met T1 SCS	

MW20-1	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.5-4.6
PHCs	Met T1 SCS

- Legend**
- Property Boundary
  - + Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊗ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards

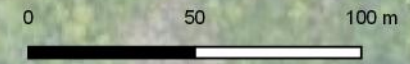
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Client: **ARGO DEVELOPMENT**

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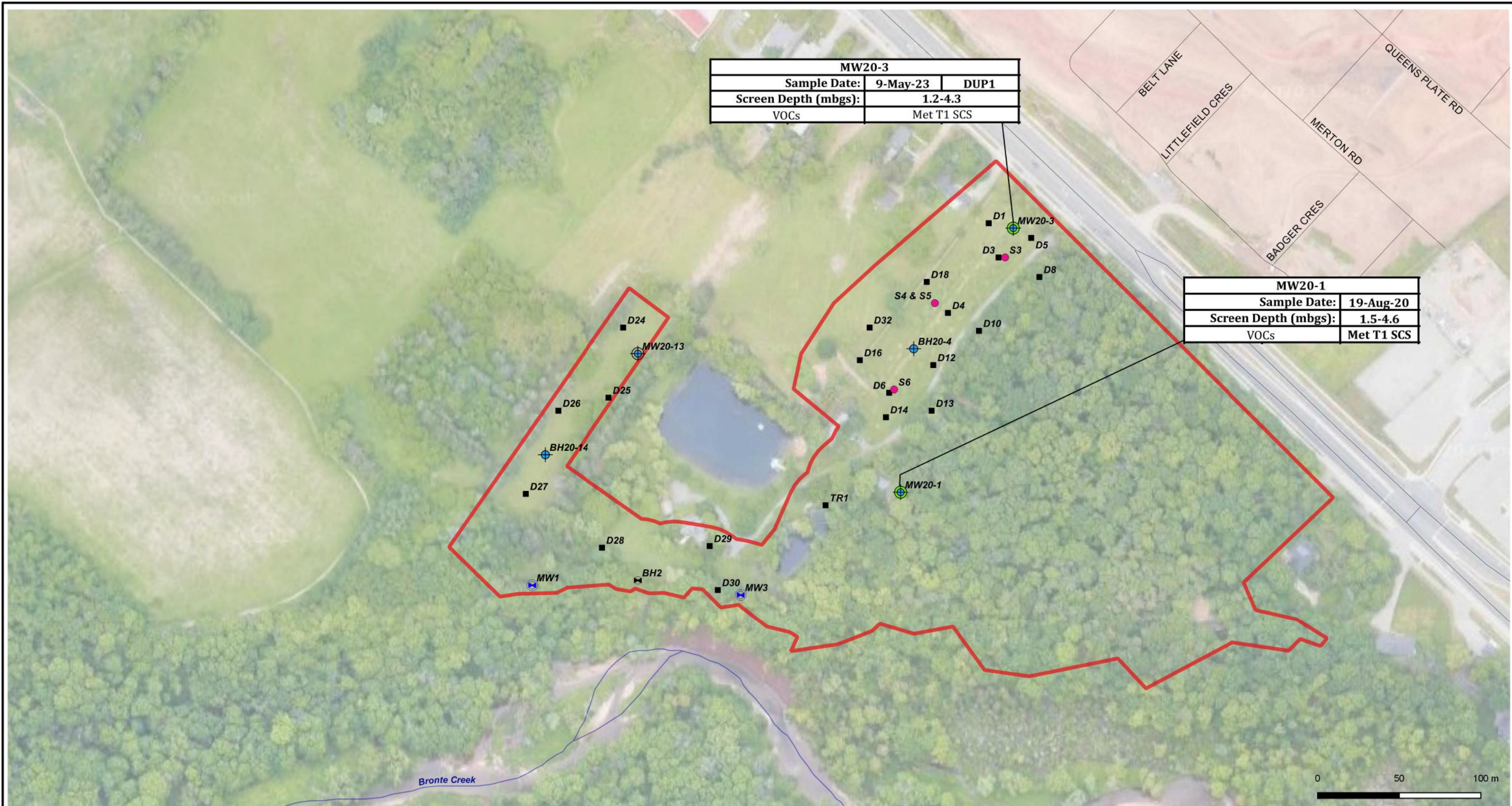
Title: **SUMMARY OF PHCs IN GROUNDWATER**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>7B</b>
Image/Map Source: Google Satellite Image							



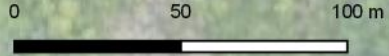


J:\GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 7C - Summary of VOCs in Groundwater.qgs Jul-05 11:35



MW20-3		
Sample Date:	9-May-23	DUP1
Screen Depth (mbgs):	1.2-4.3	
VOCs	Met T1 SCS	

MW20-1	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.5-4.6
VOCs	Met T1 SCS



**Legend**

- Property Boundary
- ⊕ Borehole (DS 2020)
- ⊕ Monitoring Well (DS 2020)
- Soil Samples (2020-Soil Mat)
- Surficial Sample (DS 2020)
- ⊕ Borehole (Terraprobe 2016)
- ⊕ Monitoring Well (Terraprobe 2016)
- Sample Met Applicable Standards



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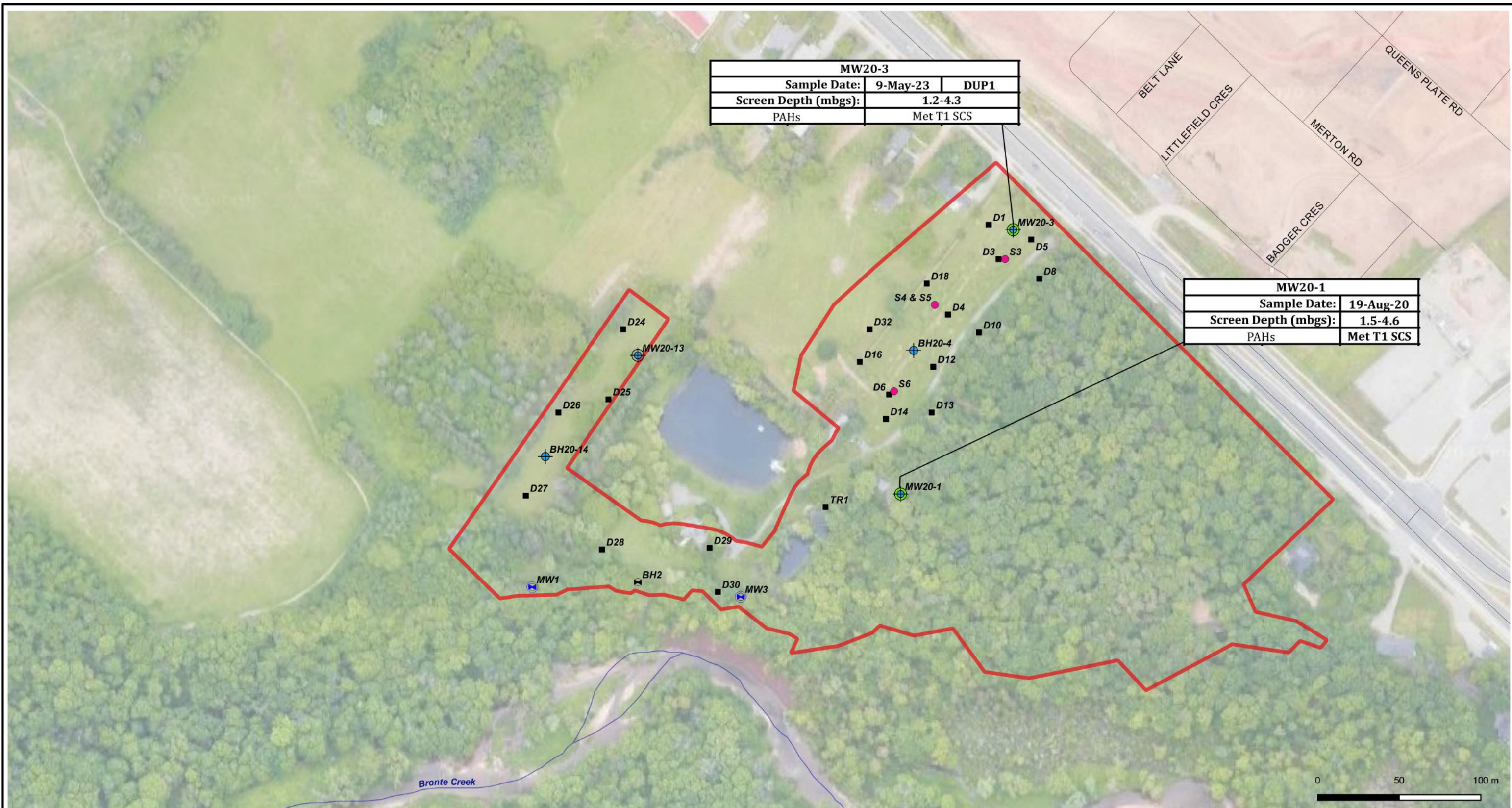
Client: **ARGO DEVELOPMENT**

Project:		PHASE TWO ENVIRONMENTAL SITE ASSESSMENT Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON					
Title:		<b>SUMMARY OF VOCs IN GROUNDWATER</b>					
Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev.	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>7C</b>
Image/Map Source: Google Satellite Image							





J:\-GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 7D - Summary of PAHs in Groundwater.ags Jul-05 11:37



MW20-3		
Sample Date:	9-May-23	DUP1
Screen Depth (mbgs):	1.2-4.3	
PAHs	Met T1 SCS	

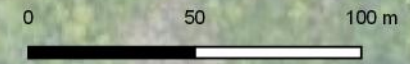
MW20-1	
Sample Date:	19-Aug-20
Screen Depth (mbgs):	1.5-4.6
PAHs	Met T1 SCS

- Legend**
- Property Boundary
  - ⊕ Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards

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	Title: <b>SUMMARY OF PAHs IN GROUNDWATER</b>			
Client: ARGO DEVELOPMENT	Size: 11x17	Approved By: R.F	Drawn By: P.P	Date: July 2023
Rev: 0	Scale: As Shown	Project No.: 20-186-100	Figure No.: <b>7D</b>	
Image/Map Source: Google Satellite Image				



J:\-GIS\2020 PROJECTS\20-186-100 1326 Bronte Road\1-QGIS\IRSC Area 2\Phase Two\Figure 7E - Summary of OCPs in Groundwater.qgs Jul-05 11:38



- Legend**
- Property Boundary
  - + Borehole (DS 2020)
  - ⊕ Monitoring Well (DS 2020)
  - Soil Samples (2020-Soil Mat)
  - Surficial Sample (DS 2020)
  - ⊕ Borehole (Terraprobe 2016)
  - ⊕ Monitoring Well (Terraprobe 2016)
  - Sample Met Applicable Standards

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Title: **SUMMARY OF OCPs IN GROUNDWATER**

Size:	11x17	Approved By:	R.F	Drawn By:	P.P	Date:	July 2023
Rev:	0	Scale:	As Shown	Project No.:	20-186-100	Figure No.:	<b>7E</b>
Image/Map Source: Google Satellite Image							







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# Tables



**Table 1: Summary of Monitoring Well Installation and Groundwater Data**

Well ID		MW20-1	MW20-3	MW20-13	
Installed By:		DS	DS	DS	
Installation Date:		13-Aug-20	13-Aug-20	13-Aug-20	
Well Status:		Active	Active	Active	
Inner Diameter	mm	50	50	50	
Surface Elevation	masl	129.00	130.22	130.98	
Bottom of Concrete Seal/Top of Bentonite Seal	mbgs	0.30	0.30	0.30	
	masl	128.70	129.92	130.68	
Bottom of Bentonite Seal/Top of Sand Pack	mbgs	0.90	0.90	0.90	
	masl	128.10	129.32	130.08	
Top of Well Screen	mbgs	1.50	1.20	1.50	
	masl	127.50	129.02	129.48	
Well Screen Length	m	3.10	3.10	3.10	
Bottom of Well Screen	mbgs	4.60	4.30	4.60	
	masl	124.40	125.92	126.08	
<b>GW Monitoring</b>					
19-Aug-20	Depth to GW	mbgs	1.97	2.71	NM
	GW Elevation	masl	127.03	127.51	NM
5-May-23	Depth to GW	mbgs	1.68	1.60	0.75
	GW Elevation	masl	127.32	128.62	130.23

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



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

Borehole ID	Sample No.	Sample Depth (mbgs)	Soil Description	Parameter Analyzed	APEC Investigated
D1	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-5, APEC-2A, APEC-2B, APEC-2C
D3	S3	0.5	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D4	S3	0.5	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D5	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D6	S3	0.5	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C, APEC-6
D8	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1
D10	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D12	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D13	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-6
D14	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C, APEC-6
D16	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C, APEC-6
SDUP7		0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	
D18	S1	0.1	Topsoil/Silty Sand	Metals, Hydride Forming Metals, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
D24	S1	0.1	Topsoil/Sand	OCPs	APEC-1
D25	S1	0.1	Topsoil/Sand	OCPs	APEC-1
D26	S1	0.1	Topsoil/Sand	OCPs	APEC-1
SDUP8		0.1	Topsoil/Sand	OCPs	APEC-1
D27	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-1
SDUP9		0.1	Topsoil/Silty Sand	OCPs	APEC-1
D28	S1	0.1	Topsoil/Silty Sand	OCPs	APEC-1
SDUP10		0.1	Topsoil/Silty Sand	OCPs	APEC-1
TR1	S1	0.1	Topsoil/Silty Sand	PHCs	APEC-1, APEC-4
				PCBs	APEC-1, APEC-4
BH/MW20-1	SS1	0.0-0.6	Topsoil/Silty Sand	M&I	APEC-1, APEC-3
	SS3	1.5-2.1	Silty Sand	PAHs, PHCs	APEC-1, APEC-3
	SS4	2.3-2.9	Sandy Silt	VOCs	APEC-1, APEC-3
BH/MW20-3	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C, APEC-5
BH20-4	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-1, APEC-2A, APEC-2B, APEC-2C
BH/MW20-13	SS1	0.0-0.6	Topsoil/Sand	M&I, OCPs	APEC-1
	SS9	6.1-6.7	Sandy Silt Till	PHCs, VOCs	
BH20-14	SS1	0.0-0.6	Topsoil/Silty Sand	M&I, OCPs	APEC-1

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
MW20-1	124.40	-	127.50	14-Aug-20	APEC-3
DUP-1				M&I, PAHs, PHCs, VOCs	
MW20-3	125.92	-	129.02	14-Aug-20	APEC-5
DUP-2				M&I, OCPs	
MW20-3				M&I	
DUP1				9-May-23	

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	The Property formally contained an orchard with inferred pesticide used	Metals As, Sb, Se, CN-, OCPs	Soil	D1	S1	Metals, Hydride Forming Metals, OCPs
				D3	S3	Metals, Hydride Forming Metals, OCPs
				D4	S3	Metals, Hydride Forming Metals, OCPs
				D5	S1	Metals, Hydride Forming Metals, OCPs
				D6	S3	Metals, Hydride Forming Metals, OCPs
				D8	S1	Metals, Hydride Forming Metals, OCPs
				D10	S1	Metals, Hydride Forming Metals, OCPs
				D12	S1	Metals, Hydride Forming Metals, OCPs
				D13	S1	Metals, Hydride Forming Metals, OCPs
				D14	S1	Metals, Hydride Forming Metals, OCPs
				D16	S1	Metals, Hydride Forming Metals, OCPs
				SDUP7		Metals, Hydride Forming Metals, OCPs
				D18	S1	Metals, Hydride Forming Metals, OCPs
				D24	S1	OCPs
				D25	S1	OCPs
				D26	S1	OCPs
				SDUP8		OCPs
				D27	S1	OCPs
				SDUP9		OCPs
				D28	S1	OCPs
SDUP10	OCPs					
BH/MW20-1	SS1	M&I				
BH/MW20-3	SS1	M&I, OCPs				
BH20-4	SS1	M&I, OCPs				
BH/MW20-13	SS1	M&I, OCPs				
BH20-14	SS1	M&I, OCPs				
APEC-2A	Environmental testing (Soil-Mat, 2020) identified pesticide (DDE), arsenic and lead impacted soil within the existing on-Site orchard (sample S3)	DDE, Arsenic Lead	Soil	D1	S1	Metals, Hydride Forming Metals, OCPs
				D3	S3	Metals, Hydride Forming Metals, OCPs
				D4	S3	Metals, Hydride Forming Metals, OCPs
				D5	S1	Metals, Hydride Forming Metals, OCPs
				D6	S3	Metals, Hydride Forming Metals, OCPs
				D10	S1	Metals, Hydride Forming Metals, OCPs
				D12	S1	Metals, Hydride Forming Metals, OCPs
				D14	S1	Metals, Hydride Forming Metals, OCPs
				D16	S1	Metals, Hydride Forming Metals, OCPs
				SDUP7		Metals, Hydride Forming Metals, OCPs
				D18	S1	Metals, Hydride Forming Metals, OCPs
				BH/MW20-3	SS1	M&I, OCPs
				BH20-4	SS1	M&I, OCPs



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-2B	Environmental testing (Soil-Mat, 2020) identified pesticide (DDE and DDD), arsenic and lead impacted soil within the existing on-Site orchard (sample S4 & 5)	DDE, Arsenic Lead	Soil	D1	S1	Metals, Hydride Forming Metals, OCPs
				D3	S3	Metals, Hydride Forming Metals, OCPs
				D4	S3	Metals, Hydride Forming Metals, OCPs
				D5	S1	Metals, Hydride Forming Metals, OCPs
				D6	S3	Metals, Hydride Forming Metals, OCPs
				D10	S1	Metals, Hydride Forming Metals, OCPs
				D12	S1	Metals, Hydride Forming Metals, OCPs
				D14	S1	Metals, Hydride Forming Metals, OCPs
				D16	S1	Metals, Hydride Forming Metals, OCPs
				SDUP7		Metals, Hydride Forming Metals, OCPs
				D18	S1	Metals, Hydride Forming Metals, OCPs
				BH/MW20-3	SS1	M&I, OCPs
BH20-4	SS1	M&I, OCPs				
APEC-2C	Environmental testing (Soil-Mat, 2020) identified pesticide (DDE), arsenic and lead impacted soil within the existing on-Site orchard (sample S6)	DDE, Arsenic	Soil	D1	S1	Metals, Hydride Forming Metals, OCPs
				D3	S3	Metals, Hydride Forming Metals, OCPs
				D4	S3	Metals, Hydride Forming Metals, OCPs
				D5	S1	Metals, Hydride Forming Metals, OCPs
				D6	S3	Metals, Hydride Forming Metals, OCPs
				D10	S1	Metals, Hydride Forming Metals, OCPs
				D12	S1	Metals, Hydride Forming Metals, OCPs
				D14	S1	Metals, Hydride Forming Metals, OCPs
				D16	S1	Metals, Hydride Forming Metals, OCPs
				SDUP7		Metals, Hydride Forming Metals, OCPs
				D18	S1	Metals, Hydride Forming Metals, OCPs
				BH/MW20-3	SS1	M&I, OCPs
BH20-4	SS1	M&I, OCPs				
APEC-3	One (1) diesel tank with a 1,360-gallon capacity and which appeared to be in good condition, but without secondary containment, was located adjacent to Shed 2 within the southern portion of the Site	PHCs, PAHs, VOCs, BTEX	Soil	BH/MW20-1	SS3	PAHs, PHCs
					SS4	VOCs
			Groundwater	MW20-1	MW20-1	PAHs, PHCs, VOCs
APEC-4	One (1) transformer was observed to be present east of Pond 2	PHCs, PCBs	Soil	TR1	S1	PHCs PCBs
APEC-5	One (1) fuel oil AST utilized for heating was observed on the eastern exterior wall of residential dwelling at 1316 Bronte Road	PHCs, BTEX, PAHs	Soil	D1	S1	Metals, Hydride Forming Metals
				BH/MW20-3	SS1	M&I
			Groundwater	BH/MW20-3	MW20-3	M&I
					DUP-2	M&I
					MW20-3	PHCs, BTEX, PAHs
DUP1						



**Table 4: Summary of APECs Investigated**

APEC	Description	COPCs	Media	Boreholes Within APEC	Samples Analysed	Parameter Analyzed
APEC-6	A soil berm located within the central portion of the Site was comprised of fill material generated from the widening of Bronte Road	Metals, As, Sb, Se, B-HWS, CN-, EC, Cr (VI), Hg, pH, SAR, PAHs	Soil	D6	S3	Metals, Hydride Forming Metals, OCPs
				D13	S1	Metals, Hydride Forming Metals, OCPs
				D14	S1	Metals, Hydride Forming Metals, OCPs
				D16	S1	Metals, Hydride Forming Metals, OCPs
				SDUP7		Metals, Hydride Forming Metals, OCPs

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 1 SCS	D1-S1	D3-S3	D4-S3	D5-S1	D6-S3	D8-S1
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20
Date Reported		31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20
Sampling Depth (mbgs)		0.1	0.5	0.5	0.1	0.5	0.1
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	20	7.2	18	34	7.3	9.3
Barium	220	47	40	70	54	56	48
Beryllium	2.5	0.35	0.49	0.69	0.38	0.42	0.36
Boron	36	3	3	6	3	2	4
Boron (Hot Water Soluble)	NA	-	-	-	-	-	-
Cadmium	1.2	0.17	0.11	0.26	0.18	0.09	0.19
Chromium	70	11	15	22	12	13	12
Chromium VI	0.66	-	-	-	-	-	-
Cobalt	21	4.9	7.5	11	5.4	6.6	5.5
Copper	92	30	29	46	29	26	20
Cyanide	0.051	-	-	-	-	-	-
Lead	120	120	24	64	150	23	50
Mercury	0.27	-	-	-	-	-	-
Molybdenum	2	0.4	0.4	0.5	0.5	0.4	0.4
Nickel	82	10	16	27	11	13	11
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	1	0.09	0.1	0.13	0.11	0.1	0.11
Uranium	2.5	0.46	0.42	0.53	0.47	0.36	0.54
Vanadium	86	17	22	27	19	20	18
Zinc	290	61	45	72	65	50	63
Electrical Conductivity (2:1)	0.57	-	-	-	-	-	-
Sodium Adsorption Ratio	2.4	-	-	-	-	-	-
pH, 2:1 CaCl2 Extraction	NA	-	-	-	-	-	-

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 1 SCS	D10-S1	D12-S1	D13-S1	D14-S1	D16-S1	SDUP7 (D16-S1)
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20
Date Reported		31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20
Sampling Depth (mbgs)		0.1	0.1	0.1	0.1	0.1	0.1
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	13	24	4	30	20	20
Barium	220	46	49	53	48	57	58
Beryllium	2.5	0.37	0.34	0.37	0.3	0.41	0.41
Boron	36	4	3	3	2	3	3
Boron (Hot Water Soluble)	NA	-	-	-	-	-	-
Cadmium	1.2	0.14	0.18	0.2	0.18	0.16	0.2
Chromium	70	11	11	11	9.6	13	12
Chromium VI	0.66	-	-	-	-	-	-
Cobalt	21	5	4.7	4.9	4.3	6	6
Copper	92	25	21	21	26	24	24
Cyanide	0.051	-	-	-	-	-	-
Lead	120	62	120	19	150	89	88
Mercury	0.27	-	-	-	-	-	-
Molybdenum	2	0.4	0.4	0.4	0.4	0.4	0.4
Nickel	82	11	9.6	11	8.9	12	12
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	1	0.1	0.1	0.1	0.1	0.11	0.11
Uranium	2.5	0.45	0.42	0.45	0.45	0.39	0.39
Vanadium	86	17	16	17	15	18	18
Zinc	290	55	57	46	56	63	62
Electrical Conductivity (2:1)	0.57	-	-	-	-	-	-
Sodium Adsorption Ratio	2.4	-	-	-	-	-	-
pH, 2:1 CaCl2 Extraction	NA	-	-	-	-	-	-

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 1 SCS	D18-S1	BH/MW20-1 SS1	BH/MW20-3 SS1	BH20-4 SS1	BH/MW20-13 SS1	MW/BH20-14 SS1
Date of Collection		20-Aug-20	13-Aug-20	13-Aug-20	13-Aug-20	13-Aug-20	13-Aug-20
Date Reported		31-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20	25-Aug-20
Sampling Depth (mbgs)		0.1	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14587-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20	CA14406-AUG20
Antimony	1.3	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8	< 0.8
Arsenic	18	21	2.1	14	14	5.4	5.9
Barium	220	49	26	41	62	43	49
Beryllium	2.5	0.37	0.3	0.42	0.44	0.42	0.4
Boron	36	2	2	2	3	3	3
Boron (Hot Water Soluble)	NA	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Cadmium	1.2	0.15	0.08	0.1	0.18	0.12	0.13
Chromium	70	12	10	11	13	12	12
Chromium VI	0.66	-	< 0.2	0.3	0.3	0.2	< 0.2
Cobalt	21	5.3	4.3	6	6.4	5.9	4.8
Copper	92	22	9.7	22	25	25	19
Cyanide	0.051	-	< 0.05	-	-	-	-
Lead	120	110	11	55	74	22	32
Mercury	0.27	-	< 0.05	0.07	0.1	< 0.05	< 0.05
Molybdenum	2	0.4	0.3	0.4	0.4	0.3	0.2
Nickel	82	11	8.4	11	13	13	11
Selenium	1.5	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Silver	0.5	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Thallium	1	0.1	0.08	0.1	0.1	0.09	0.09
Uranium	2.5	0.39	0.3	0.41	0.41	0.37	0.39
Vanadium	86	18	16	19	20	18	16
Zinc	290	61	31	43	56	39	38
Electrical Conductivity (2:1)	0.57	-	0.07	-	-	-	-
Sodium Adsorption Ratio	2.4	-	0.2	-	-	-	-
pH, 2:1 CaCl2 Extraction	NA	-	5.29	-	-	-	-

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 1 SCS	TR1-S1	MW20-1 SS3	BH20-13 SS9
Date of Collection		20-Aug-20	13-Aug-20	13-Aug-20
Date Reported		31-Aug-20	25-Aug-20	25-Aug-20
Sampling Depth (mbgs)		0.4	1.5-2.1	6.1-6.7
Analytical Report Reference No.		CA14587-AUG20	CA14406-AUG20	CA14406-AUG29
F1-BTEX	25	< 10	< 10	< 10
F2 (C10-C16)	10	< 10	< 10	< 10
F3 (C16-C34)	240	< 50	< 50	< 50
F4 (C34-C50)	120	< 50	< 50	< 50

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



**Table 7: Summary of VOCs in Soil**

Parameter	MECP Table 1 SCS	BH/MW20-1 SS4	BH20-13 SS9
Date of Collection		13-Aug-20	13-Aug-20
Date Reported		25-Aug-20	25-Aug-20
Sampling Depth (mbgs)		2.3-2.9	6.1-6.7
Analytical Report Reference No.		CA14406-AUG20	CA14406-AUG29
Acetone	0.5	< 0.5	< 0.5
Benzene	0.02	< 0.02	< 0.02
Bromodichloromethane	0.05	< 0.05	< 0.05
Bromoform	0.05	< 0.05	< 0.05
Bromomethane	0.05	< 0.05	< 0.05
Carbon Tetrachloride	0.05	< 0.05	< 0.05
Chlorobenzene	0.05	< 0.05	< 0.05
Chloroform	0.05	< 0.05	< 0.05
Cis- 1,2-Dichloroethylene	0.05	< 0.05	< 0.05
Dibromochloromethane	0.05	< 0.05	< 0.05
Dichlorobenzene, 1,2-	0.05	< 0.05	< 0.05
Dichlorobenzene, 1,3-	0.05	< 0.05	< 0.05
Dichlorobenzene, 1,4-	0.05	< 0.05	< 0.05
Dichlorodifluoromethane	0.05	< 0.05	< 0.05
Dichloroethane, 1,1-	0.05	< 0.05	< 0.05
Dichloroethane, 1,2-	0.05	< 0.05	< 0.05
Dichloroethylene, 1,1-	0.05	< 0.05	< 0.05
Dichloropropane, 1,2-	0.05	< 0.05	< 0.05
Dichloropropene, 1,3-	0.05	< 0.05	< 0.05
Ethylbenzene	0.05	< 0.05	< 0.05
Ethylene Dibromide	0.05	< 0.05	< 0.05
Methyl Ethyl Ketone	0.5	< 0.5	< 0.5
Methyl Isobutyl Ketone	0.5	< 0.5	< 0.5
Methyl tert-butyl Ether	0.05	< 0.05	< 0.05
Methylene Chloride	0.05	< 0.05	< 0.05
n-Hexane	0.05	< 0.05	< 0.05
Styrene	0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,1,2-	0.05	< 0.05	< 0.05
Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	< 0.05
Tetrachloroethylene	0.05	< 0.05	< 0.05
Toluene	0.2	< 0.05	< 0.05
Trans- 1,2-Dichloroethylene	0.05	< 0.05	< 0.05
Trichloroethane, 1,1,1-	0.05	< 0.05	< 0.05
Trichloroethane, 1,1,2-	0.05	< 0.05	< 0.05
Trichloroethylene	0.05	< 0.05	< 0.05
Trichlorofluoromethane	0.25	< 0.05	< 0.05
Vinyl Chloride	0.02	< 0.02	< 0.02
Xylene Mixture	0.05	< 0.05	< 0.05

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



**Table 8: Summary of PAHs in Soil**

Parameter	MECP Table 1 SCS	BH/MW20-1 SS3
Date of Collection		13-Aug-20
Date Reported		25-Aug-20
Screen Interval (mbgs)		1.5-2.1
Analytical Report Reference No.		CA14406-AUG20
Acenaphthene	0.072	< 0.05
Acenaphthylene	0.093	< 0.05
Anthracene	0.16	< 0.05
Benz(a)anthracene	0.36	< 0.05
Benzo(a)pyrene	0.3	< 0.05
Benzo(b)fluoranthene	0.47	< 0.05
Benzo(g,h,i)perylene	0.68	< 0.1
Benzo(k)fluoranthene	0.48	< 0.05
Chrysene	2.8	< 0.05
Dibenz(a,h)anthracene	0.1	< 0.06
Fluoranthene	0.56	< 0.05
Fluorene	0.12	< 0.05
Indeno(1,2,3-cd)pyrene	0.23	< 0.1
Naphthalene	0.09	< 0.05
2-and 1-methyl Naphthalene	0.59	< 0.05
Phenanthrene	0.69	< 0.05
Pyrene	1	< 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 1 SCS	D1-S1	D3-S3	D4-S3	D5-S1	D6-S3	D8-S1
Date of Collection		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	31-Aug-20	14-Sep-20	1-Sep-20
Sample Depth (mbgs)		0.1	0.5	0.5	0.1	0.5	0.1
Analytical Report Reference No.		CA14587-AUG19	CA14587-AUG19	CA14587-AUG19	CA14587-AUG20	CA14587-AUG19	CA14587-AUG20
Aldrin	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
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	<b>0.45</b>	< 0.05	<b>0.17</b>	<b>0.45</b>	<b>0.06</b>	<b>0.31</b>
DDT	1.4	0.12	< 0.05	< 0.05	0.11	< 0.05	0.06
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 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
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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



**Table 9: Summary of OCPs in Soil**

Parameter	MECP Table 1 SCS	D10-S1	D12-S1	D13-S1	D14-S1	D16-S1	D18-S1
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20
Date Reported		2-Sep-20	3-Sep-20	4-Sep-20	5-Sep-20	14-Sep-20	14-Sep-20
Sample Depth (mbgs)		0.1	0.1	0.1	0.1	0.1	0.1
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14587-AUG19	CA14587-AUG19
Aldrin	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
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	<b>0.39</b>	<b>0.44</b>	< 0.05	<b>0.48</b>	<b>0.31</b>	<b>0.54</b>
DDT	1.4	0.06	0.08	< 0.05	0.14	0.08	0.14
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 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
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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





**Table 9: Summary of OCPs in Soil**

Parameter	MECP Table 1 SCS	D24-S1	D25-S1	D26-S1	SDUP8 (D26-S1)	D27-S1
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20	20-Aug-20
Date Reported		6-Sep-20	14-Sep-20	7-Sep-20	8-Sep-20	9-Sep-20
Sample Depth (mbgs)		0.1	0.1	0.1	0.1	0.1
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG19	CA14587-AUG20	CA14587-AUG20	CA14587-AUG20
Aldrin	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
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDT	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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



**Table 9: Summary of OCPs in Soil**

Parameter	MECP Table 1 SCS	SDUP9 (D27-S1)	D28-S1	SDUP10 (D28-S1)	BH/MW20-3 SS1	BH/MW20-3 SS2
Date of Collection		20-Aug-20	20-Aug-20	20-Aug-20	13-Aug-20	13-Aug-20
Date Reported		10-Sep-20	11-Sep-20	12-Sep-20	25-Aug-20	27-Aug-20
Sample Depth (mbgs)		0.1	0.1	0.1	0.0-0.6	0.8-1.4
Analytical Report Reference No.		CA14587-AUG20	CA14587-AUG20	CA14587-AUG20	CA14406-AUG20	CA14749-AUG20
Aldrin	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
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	< 0.05	< 0.05	< 0.05	<b>0.21</b>	< 0.05
DDT	1.4	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dieldrin	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
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

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



**Table 9: Summary of OCPs in Soil**

Parameter	MECP Table 1 SCS	BH20-4 SS1	BH20-4 SS2	BH/MW20-13 SS1	BH20-14 SS1
Date of Collection		13-Aug-20	13-Aug-20	13-Aug-20	13-Aug-20
Date Reported		25-Aug-20	27-Aug-20	25-Aug-20	25-Aug-20
Sample Depth (mbgs)		0.0-0.6	0.8-1.4	0.0-0.6	0.0-0.6
Analytical Report Reference No.		CA14406-AUG20	CA14749-AUG20	CA14406-AUG20	CA14406-AUG20
Aldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Chlordane	0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDD	0.05	< 0.05	< 0.05	< 0.05	< 0.05
DDE	0.05	<b>0.28</b>	< 0.05	< 0.05	< 0.05
DDT	1.4	0.08	< 0.05	< 0.05	< 0.05
Dieldrin	0.05	< 0.05	< 0.05	< 0.05	< 0.05
Endosulfan	0.04	< 0.04	< 0.04	< 0.04	< 0.04
Endrin	0.04	< 0.04	< 0.04	< 0.04	< 0.04
Hexachlorocyclohexane Gamma-	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor	0.05	< 0.01	< 0.01	< 0.01	< 0.01
Heptachlor Epoxide	0.05	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobenzene	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Hexachloroethane	0.01	< 0.01	< 0.01	< 0.01	< 0.01
Methoxychlor	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.

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**Table 10: Summary of PCBs in Soil**

Parameter		TR1-S1
Date of Collection	MECP Table 1 SCS	14-Aug-20
Date Reported		31-Aug-20
Sample Depth (mbgs)		0.4
Analytical Report Reference No.		CA14584-AUG20
Polychlorinated Biphenyls	0.3	< 0.3

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

**Table 11: Summary of Metals and Inorganics in Groundwater**

Parameter	MECP Table 1 SCS	MW20-1	DUP-1 (MW20-1)	MW20-3	DUP-2 (MW20-3)
Date of Collection		19-Aug-20	19-Aug-20	19-Aug-20	19-Aug-20
Date Reported		31-Aug-20	31-Aug-20	31-Aug-20	31-Aug-20
Screen Interval (mbgs)		1.5-4.6	1.5-4.6	1.2-4.3	1.2-4.3
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG20	CA14584-AUG20	CA14584-AUG20
Antimony	1.5	0.16	0.15	0.93	0.89
Arsenic	13	< 0.2	0.2	1.5	1.4
Barium	610	56.3	53	183	179
Beryllium	0.5	< 0.007	< 0.007	< 0.007	< 0.007
Boron	1700	34	32	87	81
Cadmium	0.5	0.016	0.014	< 0.003	0.003
Chloride	790000	17000	17000	-	-
Chromium	11	< 0.08	0.12	0.13	< 0.08
Chromium VI	25	< 0.2	< 0.2	0.2	< 0.2
Cobalt	3.8	0.162	0.178	0.213	0.208
Copper	5	0.6	1.7	0.9	0.6
Cyanide	5	< 2	< 2	-	-
Lead	1.9	< 0.01	0.03	0.03	0.02
Mercury	0.1	< 0.01	< 0.01	< 0.01	< 0.01
Molybdenum	23	0.4	0.32	6.7	6.16
Nickel	14	1.2	1.8	1	0.7
Selenium	5	0.05	0.06	0.47	0.5
Silver	0.3	< 0.05	< 0.05	< 0.05	< 0.05
Sodium	490000	20300	22000	15100	14100
Thallium	0.5	0.009	0.007	0.032	0.033
Uranium	8.9	0.827	0.791	1.67	1.59
Vanadium	3.9	0.22	0.25	1.43	1.47
Zinc	160	< 2	3	< 2	< 2

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

**Table 12: Summary of PHCs in Groundwater**

Parameter	MECP Table 1 SCS	MW20-1	MW20-3	DUP1 (MW20-3)
Date of Collection		19-Aug-20	9-May-23	9-May-23
Date Reported		31-Aug-20	16-May-23	16-May-23
Screen Interval (mbgs)		1.5-4.6	1.2-4.3	1.2-4.3
Analytical Report Reference No.	CA14584-AUG20	C3D1205	C3D1205	
F1 (C6 to C10) minus BTEX	420	< 25	< 25	< 25
F2 (C10 to C16)	150	< 100	< 100	< 100
F3 (C16 to C34)	500	< 200	< 200	< 200
F4 (C34 to C50) minus PAHs	500	< 200	< 200	< 200

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

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

Parameter	MECP Table 1 SCS	MW20-1	Trip Blank	MW20-3	DUP1 (MW20-3)	Trip Blank
Date of Collection		19-Aug-20	-	9-May-23	9-May-23	-
Date Reported		31-Aug-20	31-Aug-20	16-May-23	16-May-23	16-May-23
Screen Interval (mbs)		1.5-4.6	-	1.2-4.3	1.2-4.3	-
Analytical Report Reference No.		CA14584-AUG20	CA14584-AUG21	C3D1205	C3D1205	C3D1205
Acetone	2700	< 30	< 30	-	-	-
Benzene	0.5	< 0.5	< 0.5	<0.20	<0.20	<0.20
Bromodichloromethane	2	< 0.5	< 0.5	-	-	-
Bromoform	5	< 0.5	< 0.5	-	-	-
Bromomethane	0.89	< 0.5	< 0.5	-	-	-
Carbon Tetrachloride	0.2	< 0.2	< 0.2	-	-	-
Chlorobenzene	0.5	< 0.5	< 0.5	-	-	-
Chloroform	2	< 0.5	< 0.5	-	-	-
cis- 1,2-Dichloroethylene	1.6	< 0.5	< 0.5	-	-	-
Dibromochloromethane	2	< 0.5	< 0.5	-	-	-
Dichlorobenzene, 1,2-	0.5	< 0.5	< 0.5	-	-	-
Dichlorobenzene, 1,3-	0.5	< 0.5	< 0.5	-	-	-
Dichlorobenzene, 1,4-	0.5	< 0.5	< 0.5	-	-	-
Dichlorodifluoromethane	590	< 2	< 2	-	-	-
Dichloroethane, 1,1-	0.5	< 0.5	< 0.5	-	-	-
Dichloroethane, 1,2-	0.5	< 0.5	< 0.5	-	-	-
Dichloroethylene, 1,1-	0.5	< 0.5	< 0.5	-	-	-
Dichloropropane, 1,2-	0.5	< 0.5	< 0.5	-	-	-
Dichloropropene, 1,3-	0.5	< 0.5	< 0.5	-	-	-
Ethylbenzene	0.5	< 0.5	< 0.5	<0.20	<0.20	<0.20
Ethylene Dibromide	0.2	< 0.2	< 0.2	-	-	-
Methyl Ethyl Ketone	400	< 20	< 1	-	-	-
Methyl Isobutyl Ketone	640	< 20	< 20	-	-	-
Methyl tert-butyl ether	15	< 2	< 20	-	-	-
Methylene Chloride	5	< 0.5	< 2	-	-	-
n-Hexane	5	< 1	< 0.5	-	-	-
Styrene	0.5	< 0.5	< 0.5	-	-	-
Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	< 0.5	-	-	-
Tetrachloroethane, 1,1,2,2-	0.5	< 0.5	< 0.5	-	-	-
Tetrachloroethylene	0.5	< 0.5	< 0.5	-	-	-
Toluene	0.8	< 0.5	< 0.5	<0.20	<0.20	<0.20
trans- 1,2-Dichloroethylene	1.6	< 0.5	< 0.5	-	-	-
Trichloroethane, 1,1,1-	0.5	< 0.5	< 0.5	-	-	-
Trichloroethane, 1,1,2-	0.5	< 0.5	< 0.5	-	-	-
Trichloroethylene	0.5	< 0.5	< 0.5	-	-	-
Trichlorofluoromethane	150	< 5	< 5	-	-	-
Vinyl Chloride	0.5	< 0.2	< 0.2	-	-	-
Xylene Mixture	72	< 0.5	< 0.5	<0.40	<0.40	<0.40

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

**Table 14: Summary of PAHs in Groundwater**

Parameter	MECP Table 1 SCS	MW20-1	MW20-3	DUP1 (MW20-3)
Date of Collection		19-Aug-20	9-May-23	9-May-23
Date Reported		31-Aug-20	16-May-23	16-May-23
Screen Interval (mbgs)		1.5-4.6	1.2-4.3	1.2-4.3
Analytical Report Reference No.		CA14584-AUG20	C3D1205	C3D1205
Acenaphthene	4.1	< 0.1	<0.050	<0.050
Acenaphthylene	1	< 0.1	<0.050	<0.050
Anthracene	0.1	< 0.1	<0.050	<0.050
Benz(a)anthracene	0.2	< 0.1	<0.050	<0.050
Benzo(a)pyrene	0.01	< 0.01	<0.0090	<0.0090
Benzo(b)fluoranthene	0.1	< 0.1	<0.050	<0.050
Benzo(g,h,i)perylene	0.2	< 0.2	<0.050	<0.050
Benzo(k)fluoranthene	0.1	< 0.1	<0.050	<0.050
Chrysene	0.1	< 0.1	<0.050	<0.050
Dibenz(a,h)anthracene	0.2	< 0.1	<0.050	<0.050
Fluoranthene	0.4	< 0.1	<0.050	<0.050
Fluorene	120	< 0.1	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	0.2	< 0.2	<0.050	<0.050
Naphthalene	7	< 0.5	<0.050	<0.050
2-and 1-methyl Naphthalene	2	< 0.5	<0.071	<0.071
Phenanthrene	0.1	< 0.1	<0.030	<0.030
Pyrene	0.2	< 0.1	<0.050	<0.050

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



**Table 15: Summary of OCPs in Groundwater**

Parameter	MECP Table 1 SCS	MW20-3
Date of Collection		19-Aug-20
Date Reported		31-Aug-20
Screen Interval (mbgs)		1.2-4.3
Analytical Report Reference No.		CA14584-AUG20
Aldrin	0.01	< 0.01
Chlordane	0.06	< 0.02
DDD	1.8	< 0.05
DDE	10	< 0.01
DDT	0.05	< 0.05
Dieldrin	0.05	< 0.01
Endosulfan	0.05	< 0.05
Endrin	0.05	< 0.05
Hexachlorocyclohexane Gamma-	0.01	< 0.01
Heptachlor	0.01	< 0.01
Heptachlor Epoxide	0.01	< 0.01
Hexachlorobenzene	0.01	< 0.01
Hexachlorobutadiene	0.01	< 0.01
Hexachloroethane	0.01	< 0.01
Methoxychlor	0.05	< 0.01

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



**Table 16: Summary of Maximum Concentrations in Soil**

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.3	< 0.8	All Samples
	Arsenic	18	<b>34</b>	D5-S1
	Barium	220	70	D4-S3
	Beryllium	2.5	0.69	D4-S3
	Boron	36	6	D4-S3
	Boron (Hot Water Soluble)	NA	< 0.5	All Samples
	Cadmium	1.2	0.26	D4-S3
	Chromium	70	22	D4-S3
	Chromium VI	0.66	0.3	BH/MW20-3 SS1
	Cobalt	21	11	D4-S3
	Copper	92	46	D4-S3
	Cyanide	0.051	< 0.05	All Samples
	Lead	120	<b>150</b>	D5-S1
	Mercury	0.27	0.1	BH20-4 SS1
	Molybdenum	2	0.5	D4-S3
	Nickel	82	27	D4-S3
	Selenium	1.5	< 0.7	All Samples
	Silver	0.5	< 0.05	All Samples
	Thallium	1	0.13	D4-S3
	Uranium	2.5	0.54	D8-S1
Vanadium	86	27	D4-S3	
Zinc	290	72	D4-S3	
	Electrical Conductivity (2:1)	0.57	0.07	BH/MW20-1 SS1
	Sodium Adsorption Ratio	2.4	0.2	BH/MW20-1 SS1
	pH, 2:1 CaCl2 Extraction	NA	5.29	BH/MW20-1 SS1
PHCs	F1-BTEX	25	< 10	All Samples
	F2 (C10-C16)	10	< 10	All Samples
	F3 (C16-C34)	240	< 50	All Samples
	F4 (C34-C50)	120	< 50	All Samples



**Table 16: Summary of Maximum Concentrations in Soil**

	Parameter	Standard	Maximum Concentration	Location
VOCs	Acetone	0.5	< 0.5	All Samples
	Benzene	0.02	< 0.02	All Samples
	Bromodichloromethane	0.05	< 0.05	All Samples
	Bromoform	0.05	< 0.05	All Samples
	Bromomethane	0.05	< 0.05	All Samples
	Carbon Tetrachloride	0.05	< 0.05	All Samples
	Chlorobenzene	0.05	< 0.05	All Samples
	Chloroform	0.05	< 0.05	All Samples
	Cis- 1,2-Dichloroethylene	0.05	< 0.05	All Samples
	Dibromochloromethane	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,2-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,3-	0.05	< 0.05	All Samples
	Dichlorobenzene, 1,4-	0.05	< 0.05	All Samples
	Dichlorodifluoromethane	0.05	< 0.05	All Samples
	Dichloroethane, 1,1-	0.05	< 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	0.05	< 0.05	All Samples
	Ethylene Dibromide	0.05	< 0.05	All Samples
	Methyl Ethyl Ketone	0.5	< 0.5	All Samples
	Methyl Isobutyl Ketone	0.5	< 0.5	All Samples
	Methyl tert-butyl Ether	0.05	< 0.05	All Samples
	Methylene Chloride	0.05	< 0.05	All Samples
	n-Hexane	0.05	< 0.05	All Samples
	Styrene	0.05	< 0.05	All Samples
	Tetrachloroethane, 1,1,1,2-	0.05	< 0.05	All Samples
	Tetrachloroethane, 1,1,2,2-	0.05	< 0.05	All Samples
	Tetrachloroethylene	0.05	< 0.05	All Samples
	Toluene	0.2	< 0.05	All Samples
	Trans- 1,2-Dichloroethylene	0.05	< 0.05	All Samples
	Trichloroethane, 1,1,1-	0.05	< 0.05	All Samples
	Trichloroethane, 1,1,2-	0.05	< 0.05	All Samples
Trichloroethylene	0.05	< 0.05	All Samples	
Trichlorofluoromethane	0.25	< 0.05	All Samples	
Vinyl Chloride	0.02	< 0.02	All Samples	
Xylene Mixture	0.05	< 0.05	All Samples	



**Table 16: Summary of Maximum Concentrations in Soil**

	Parameter	Standard	Maximum Concentration	Location
PAHs	Acenaphthene	0.072	< 0.05	All Samples
	Acenaphthylene	0.093	< 0.05	All Samples
	Anthracene	0.16	< 0.05	All Samples
	Benz(a)anthracene	0.36	< 0.05	All Samples
	Benzo(a)pyrene	0.3	< 0.05	All Samples
	Benzo(b)fluoranthene	0.47	< 0.05	All Samples
	Benzo(g,h,i)perylene	0.68	< 0.1	All Samples
	Benzo(k)fluoranthene	0.48	< 0.05	All Samples
	Chrysene	2.8	< 0.05	All Samples
	Dibenz(a,h)anthracene	0.1	< 0.06	All Samples
	Fluoranthene	0.56	< 0.05	All Samples
	Fluorene	0.12	< 0.05	All Samples
	Indeno(1,2,3-cd)pyrene	0.23	< 0.1	All Samples
	Naphthalene	0.09	< 0.05	All Samples
	2-and 1-methyl Naphthalene	0.59	< 0.05	All Samples
	Phenanthrene	0.69	< 0.05	All Samples
Pyrene	1	< 0.05	All Samples	
OCPs	Aldrin	0.05	< 0.05	All Samples
	Chlordane	0.05	< 0.05	All Samples
	DDD	0.05	< 0.05	All Samples
	DDE	0.05	<b>0.54</b>	D18-S1
	DDT	1.4	0.14	D14-S1
	Dieldrin	0.05	< 0.05	All Samples
	Endosulfan	0.04	< 0.04	All Samples
	Endrin	0.04	< 0.04	All Samples
	Hexachlorocyclohexane Gamma-	0.01	< 0.01	All Samples
	Heptachlor	0.05	< 0.01	All Samples
	Heptachlor Epoxide	0.05	< 0.01	All Samples
	Hexachlorobenzene	0.01	< 0.01	All Samples
	Hexachlorobutadiene	0.01	< 0.01	All Samples
	Hexachloroethane	0.01	< 0.01	All Samples
	Methoxychlor	0.05	< 0.05	All Samples
PCBs	Polychlorinated Biphenyls	0.3	< 0.05	All Samples

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





**Table 17: Summary of Maximum Concentrations in Groundwater**

	Parameter	Standard	Maximum Concentration	Location
Metals and ORPs	Antimony	1.5	0.93	MW20-3
	Arsenic	13	1.5	MW20-3
	Barium	610	183	MW20-3
	Beryllium	0.5	< 0.007	All Samples
	Boron	1700	87	MW20-3
	Cadmium	0.5	0.016	MW20-1
	Chloride	790000	17000	MW20-1
	Chromium	11	0.13	MW20-3
	Chromium VI	25	0.2	MW20-3
	Cobalt	3.8	0.213	MW20-3
	Copper	5	1.7	DUP-1 (MW20-1)
	Cyanide	5	< 2	All Samples
	Lead	1.9	0.03	DUP-1 (MW20-1)
	Mercury	0.1	< 0.01	All Samples
	Molybdenum	23	6.7	MW20-3
	Nickel	14	1.8	DUP-1 (MW20-1)
	Selenium	5	0.5	DUP-2 (MW20-3)
	Silver	0.3	< 0.05	All Samples
	Sodium	490000	22000	DUP-1 (MW20-1)
	Thallium	0.5	0.033	DUP-2 (MW20-3)
Uranium	8.9	1.67	MW20-3	
Vanadium	3.9	1.47	DUP-2 (MW20-3)	
Zinc	160	3	DUP-1 (MW20-1)	
PHCs	F1 (C6 to C10) minus BTEX	420	< 25	All Samples
	F2 (C10 to C16)	150	< 100	All Samples
	F3 (C16 to C34)	500	< 200	All Samples
	F4 (C34 to C50) minus PAHs	500	< 200	All Samples



**Table 17: Summary of Maximum Concentrations in Groundwater**

	Parameter	Standard	Maximum Concentration	Location
VOCs	Acetone	2700	< 30	All Samples
	Benzene	0.5	< 0.5	All Samples
	Bromodichloromethane	2	< 0.5	All Samples
	Bromoform	5	< 0.5	All Samples
	Bromomethane	0.89	< 0.5	All Samples
	Carbon Tetrachloride	0.2	< 0.2	All Samples
	Chlorobenzene	0.5	< 0.5	All Samples
	Chloroform	2	< 0.5	All Samples
	cis- 1,2-Dichloroethylene	1.6	< 0.5	All Samples
	Dibromochloromethane	2	< 0.5	All Samples
	Dichlorobenzene, 1,2-	0.5	< 0.5	All Samples
	Dichlorobenzene, 1,3-	0.5	< 0.5	All Samples
	Dichlorobenzene, 1,4-	0.5	< 0.5	All Samples
	Dichlorodifluoromethane	590	< 2	All Samples
	Dichloroethane, 1,1-	0.5	< 0.5	All Samples
	Dichloroethane, 1,2-	0.5	< 0.5	All Samples
	Dichloroethylene, 1,1-	0.5	< 0.5	All Samples
	Dichloropropane, 1,2-	0.5	< 0.5	All Samples
	Dichloropropene, 1,3-	0.5	< 0.5	All Samples
	Ethylbenzene	0.5	< 0.5	All Samples
	Ethylene Dibromide	0.2	< 0.2	All Samples
	Methyl Ethyl Ketone	400	< 20	All Samples
	Methyl Isobutyl Ketone	640	< 20	All Samples
	Methyl tert-butyl ether	15	< 2	All Samples
	Methylene Chloride	5	< 0.5	All Samples
	n-Hexane	5	< 1	All Samples
	Styrene	0.5	< 0.5	All Samples
	Tetrachloroethane, 1,1,1,2-	1.1	< 0.5	All Samples
	Tetrachloroethane, 1,1,2,2-	0.5	< 0.5	All Samples
	Tetrachloroethylene	0.5	< 0.5	All Samples
	Toluene	0.8	< 0.5	All Samples
	trans- 1,2-Dichloroethylene	1.6	< 0.5	All Samples
	Trichloroethane, 1,1,1-	0.5	< 0.5	All Samples
	Trichloroethane, 1,1,2-	0.5	< 0.5	All Samples
	Trichloroethylene	0.5	< 0.5	All Samples
	Trichlorofluoromethane	150	< 5	All Samples
Vinyl Chloride	0.5	< 0.2	All Samples	
Xylene Mixture	72	< 0.5	All Samples	



**Table 17: Summary of Maximum Concentrations in Groundwater**

	Parameter	Standard	Maximum Concentration	Location
PAHs	Acenaphthene	4.1	< 0.1	All Samples
	Acenaphthylene	1	< 0.1	All Samples
	Anthracene	0.1	< 0.1	All Samples
	Benz(a)anthracene	0.2	< 0.1	All Samples
	Benzo(a)pyrene	0.01	< 0.01	All Samples
	Benzo(b)fluoranthene	0.1	< 0.1	All Samples
	Benzo(g,h,i)perylene	0.2	< 0.2	All Samples
	Benzo(k)fluoranthene	0.1	< 0.1	All Samples
	Chrysene	0.1	< 0.1	All Samples
	Dibenz(a,h)anthracene	0.2	< 0.1	All Samples
	Fluoranthene	0.4	< 0.1	All Samples
	Fluorene	120	< 0.1	All Samples
	Indeno(1,2,3-cd)pyrene	0.2	< 0.2	All Samples
	Naphthalene	7	< 0.5	All Samples
	2-and 1-methyl Naphthalene	2	< 0.5	All Samples
	Phenanthrene	0.1	< 0.1	All Samples
Pyrene	0.2	< 0.1	All Samples	
OCPs	Aldrin	0.01	< 0.01	All Samples
	Chlordane	0.06	< 0.02	All Samples
	DDD	1.8	< 0.05	All Samples
	DDE	10	< 0.01	All Samples
	DDT	0.05	< 0.05	All Samples
	Dieldrin	0.05	< 0.01	All Samples
	Endosulfan	0.05	< 0.05	All Samples
	Endrin	0.05	< 0.05	All Samples
	Hexachlorocyclohexane Gamma-	0.01	< 0.01	All Samples
	Heptachlor	0.01	< 0.01	All Samples
	Heptachlor Epoxide	0.01	< 0.01	All Samples
	Hexachlorobenzene	0.01	< 0.01	All Samples
	Hexachlorobutadiene	0.01	< 0.01	All Samples
	Hexachloroethane	0.01	< 0.01	All Samples
Methoxychlor	0.05	< 0.01	All Samples	

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



**Notes for Soil and Groundwater Summary Tables**

	For soil and groundwater analytical results, concentration exceeds the applicable Standards.
	For soil and groundwater analytical results, laboratory detection limits exceed the applicable Standards.
masl	Meters above sea level
<b>MECP Table 1 SCS</b>	Full Depth Background Site Condition Standards for all property uses other than agricultural as contained in Table 1 of the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, published by the MECP on April 15, 2011.
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
<b>Units</b>	Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
<b>Units</b>	Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated



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# Appendix A



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Project Number: 20-186-100

2023-07-06

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

Attention: Mr. Scott Bland,  
Sent via email: [scott@argoland.com](mailto:scott@argoland.com)

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

Dear: Mr. Scott Bland,

## **1. Introduction**

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DS Consultants Limited (DS) is pleased to present the Sampling and Analysis Plan (SAP) for the proposed Phase Two Environmental Site Assessment of Part of 1300, 1316, and 1342 Bronte Road, Oakville, Ontario, identified as “Area 2” 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**

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Based on the Phase One Environmental Site Assessment completed by DS in August, 2020, it is DS’s understanding that the Site is a 8.3-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 eight (8) 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	Western Portion of the Phase One Property	#40 – Pesticides (including Herbicides, Fungicides and Anti-Fouling Agents) Manufacturing, Processing, Bulk Storage and Large-Scale Applications	On Site PCA-1	OCPs, metals As, Sb, Se, CN-	Soil
APEC-2A	Eastern portion of the Property, within current orchard	#N/S – Impacted Soil – Soil-Mat (2020) sample S3, associated with a depth of 0.1 mbgs	On Site PCA-2A	DDE Arsenic Lead	Soil
APEC-2B	Eastern portion of the Property, within current orchard	#N/S – Impacted Soil - Soil-Mat (2020) sample sample S4 & 5 taken at the same location, associated with a depth of 0.1 mbgs and 0.2-0.3 mbgs respectively	On Site PCA-2B	DDE Arsenic Lead	Soil
APEC-2C	Eastern portion of the Property, within current orchard	#N/S – Impacted Soil - Soil-Mat (2020) sample S6, associated with a depth of 0.1 mbgs	On Site PCA-2C	DDE Arsenic	Soil
APEC-3	Diesel AST in the vicinity of Shed 2	#28 – Gasoline and associated products storage in fixed tanks	On Site PCA-3	PHCs, PAHs, VOCs, BTEX	Soil and groundwater
APEC-4	East adjacent to Pond 2	#55 – Transformer Manufacturing, Processing and Use	On Site PCA-4	PHCs	Soil
APEC-5	Area south adjacent to the residential dwelling at 1316 Bronte Road.	#28 – Gasoline and associated products storage in fixed tanks	Off-Site PCA-8	PHCs, BTEX, PAHs	Groundwater
APEC-6	Eastern Portion of the Site	#30 – Fill Material of Unknown Origin	On-Site PCA-15	Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	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 five (5) 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:

**TableError! 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)
MW20-3	6 mbgs	Yes	6 mbgs	Located within a former orchard.	Geotechnical and environmental (soil impacts associated with the historic application of pesticides).
BH20-4	4 mbgs	No	N/A		
MW20-13	6 mbgs	Yes	6 mbgs	Located within a former orchard.	Geotechnical and environmental (soil impacts associated with the historic application of pesticides).
BH20-14	4 mbgs	No	N/A		

- In addition to the above, seventeen (17) boreholes will be advanced across the entire property and to a depth of 0.5 mbgs in order to investigate potential pesticide impacts (APEC 2A, 2B and 2C) and one (1) borehole located immediately downgradient of the onsite transformer advanced to a depth of 0.1 mbgs (APEC 4).
- 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"> <li>• Sixteen (16) samples for analysis of metals and hydride forming metals</li> <li>• One (1) sample for analysis of CN-, Hg, Cr(VI), B-HWS, Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR) and pH (Other Regulated Parameters, ORPs)</li> <li>• Three (3) samples for analysis of PHCs</li> <li>• Two (2) samples for analysis of VOCs</li> <li>• One (1) sample for analysis of PAHs</li> <li>• Twenty-three (23) samples for analysis of OCPs</li> <li>• One (1) sample for analysis of PCBs</li> </ul>	<ul style="list-style-type: none"> <li>• Two (2) samples for analysis of metals and inorganics</li> <li>• Two (2) samples for analysis of PHCs</li> <li>• One (1) sample for analysis of VOCs</li> <li>• Two (2) samples for analysis of PAHs</li> <li>• One (1) sample for analysis of OCPs</li> </ul>

- 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

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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<sub>ESA</sub>  
Manager – Environmental Services





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# Appendix B



PROJECT: Phase Two Environmental Investigation  
CLIENT: Argo Development  
PROJECT LOCATION: Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON  
DATUM: Geodetic  
BH LOCATION: N 4807732.718 E 601031.731

**DRILLING DATA**  
Method: Hollow Stem Augers  
Diameter: 200 mm  
Date: Aug/13/2020

REF. NO.: 20-186-100  
ENCL NO.: 1

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	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						
129.0	<b>TOPSOIL</b>												M&I
0.2	<b>SILTY SAND:</b> Brown, moist, trace organics.		1	SS	4		bentonite						
128.2	<b>SILTY SAND TO SAND:</b> Brown, moist, trace gravel.		2	SS	7								
1	moist to very moist at 1.5m		3	SS	3								PAHs and PHCs
126.7	<b>SANDY SILT:</b> Brown, very moist.		4	SS	31		W. L. 127.0 masl Aug 18, 2020						VOCs
126.0	<b>SILTY CLAY TO CLAYEY SILT:</b> Grey, very moist.		5	SS	12		screen						
125.2	<b>SILT:</b> Grey, very moist, some clay.		6	SS	14								
123.7	<b>SILT TILL:</b> Grey, moist, some clay, trace gravel and cobbles.		8	SS	18		cave						
122.9	<b>CLAYEY SILT TILL TO SILT TILL:</b> Grey, moist, trace gravel, cobbles and some reddish brown cobbles.		9	SS	13								
122.3	<b>END OF BOREHOLE</b>												
6.7	Notes: 1) Monitoring well installed at 4.6m. 2) Water Level Measurements: Date: Water Level (mbgs) Aug.18, 2020 1.97												

DS ENVIRO 0-50 PPM-2021 20-186-100 - AREA 2.GPJ DS.GDT 7/6/23

**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: Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON  
DATUM: Geodetic  
BH LOCATION: N 4807894.836 E 601101.6

DRILLING DATA  
Method: Hollow Stem Augers  
Diameter: 200 mm  
Date: Aug/13/2020

REF. NO.: 20-186-100  
ENCL NO.: 2

SOIL PROFILE			SAMPLES			Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	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						
130.2	<b>TOPSOIL</b>												
130.0	<b>SILTY SAND:</b> Brown, moist, trace gravel and cobbles.		1	SS	3		130						M&I and OCPS
129.5	<b>COARSE SAND AND GRAVEL:</b> Brown, moist, some cobbles.		2	SS	10		129						
129.5			3	SS	28		129						
127.9	<b>SILT:</b> Grey, very moist, some clay.		4	SS	10		128						
127.2	<b>CLAY TO SILTY CLAY:</b> Grey, very moist/wet.		5	SS	2		127						
126.4	<b>SILTY CLAY TILL:</b> Grey, moist, trace gravel and cobbles.		6	SS	16		126						
125.6	<b>SILT TILL:</b> Grey, moist, some clay, trace gravel and cobbles.		7	SS	26		125						
124.9	<b>SILTY SAND TILL:</b> Grey, moist, some clay, gravel and cobbles.		8	SS	50 for 5.5"		124						
124.1	<b>SANDY SILT TILL:</b> Grey, moist, some clay, gravel and cobbles. Some red cobbles.		9	SS	50 for 5.5"		124						
123.5	<b>END OF BOREHOLE:</b> Notes: 1) Well installed at 4.3m. 2) Water Level Measurements: Date: Water Level (mbgs) Aug. 18, 2020 2.49 mbgs												

DS ENVIRO 0-50 PPM-2021 20-186-100 - AREA 2.GPJ DS.GDT 7/6/23

GROUNDWATER ELEVATIONS  
Measurement 1st 2nd 3rd 4th

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





PROJECT: Phase Two Environmental Investigation  
CLIENT: Argo Development  
PROJECT LOCATION: Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON  
DATUM: Geodetic  
BH LOCATION: N 4807820.201 E 601040.503

**DRILLING DATA**  
Method: Hollow Stem Augers  
Diameter: 200 mm  
Date: Aug/13/2020

REF. NO.: 20-186-100  
ENCL NO.: 3

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)	WATER CONTENT (%)						
130.9 0.1	<b>TOPSOIL</b> <b>SILTY SAND:</b> Brown, moist, trace gravel and cobbles.	[Symbol]	1	SS	4										M&I and OCPs	
130.1 0.8	<b>SAND AND GRAVEL:</b> Brown, most to very moist, trace cobbles.	[Symbol]	2	SS	10											
129.3 1.5	<b>SILTY SAND TILL:</b> Brown, very moist, trace gravel.	[Symbol]	3	SS	14											
128.6 2.3	<b>SAND:</b> Brown, wet, some silt, orange mottling observed at 2.3mbgs	[Symbol]	4	SS	31											
127.3 3.0			5	SS	29											
126.3 4.6	<b>CLAY to SILTY CLAY TILL:</b> Grey, moist, trace gravel and cobbles.	[Symbol]	6	SS	10											
124.8 6.1	<b>SANDY SILT:</b> Grey, moist, some gravel and cobbles.	[Symbol]	7	SS	52											
124.2 6.7	<b>END OF BOREHOLE</b> Notes: 1) Borehole backfilled with bentonite upon completion.															

DS ENVIRO 0-50 PPM-2021 20-186-100 - AREA 2.GPJ DS.GDT 7/6/23

**GROUNDWATER ELEVATIONS**  
Measurement 1st 2nd 3rd 4th

**GRAPH NOTES**

+<sup>3</sup>, ×<sup>3</sup>: Numbers refer to Sensitivity

○ s=3% Strain at Failure



PROJECT: Phase Two Environmental Investigation  
CLIENT: Argo Development  
PROJECT LOCATION: Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON  
DATUM: Geodetic  
BH LOCATION: N 4807816.248 E 600872.963

DRILLING DATA  
Method: Hollow Stem Augers  
Diameter: 200 mm  
Date: Aug/13/2020

REF. NO.: 20-186-100  
ENCL NO.: 4

SOIL PROFILE			SAMPLES			Soil Head Space Vapors			PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	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)						
131.0	<b>TOPSOIL</b>		1	SS	3									Metals and OCPs
130.0 0.1	<b>SAND:</b> Brown, moist, some clay, trace gravel, cobbles and organics.						bentonite							
130.2 0.8	<b>SAND AND GRAVEL:</b> Brown, moist, some clay and cobbles.		2	SS	6									
	Wet, no clay at 1.5m													
128.7 2.3	<b>SILTY CLAY TO CLAYEY SILT:</b> Brown, very moist to wet, trace gravel, cobbles and some sand.		3	SS	7									
	Brown/slightly grey, very moist at 3m						W. L. 129.4 masl Aug 18, 2020							
127.2 3.8	<b>SILTY CLAY TILL:</b> Grey, very moist, trace gravel and cobbles.		4	SS	8									
	Moist, some clay, gravel and cobbles at 5m													
125.6 5.3	<b>SILTY TILL:</b> Grey, very moist, some clay, gravel and cobbles.		5	SS	50 for 40mm									
124.9 6.1	<b>SANDY SILT TILL:</b> Grey, very moist, trace gravel, some clay.		6	SS	50 for 30mm									
124.3 6.7	<b>END OF BOREHOLE</b> Notes: 1) Monitoring well installed at 4.6m. 2) Water Level Measurements: Date: Water Level (mbgs) Aug. 18, 2020 1.55 mbgs		7	SS	50 for 40mm									

DS ENVIRO 0-50 PPM-2021 20-186-100 - AREA 2.GPJ DS.GDT 7/6/23

GROUNDWATER ELEVATIONS  
Measurement 1st 2nd 3rd 4th

GRAPH NOTES +3, X3: Numbers refer to Sensitivity ○ =3% Strain at Failure



PROJECT: Phase Two Environmental Investigation  
CLIENT: Argo Development  
PROJECT LOCATION: Part of 1300, 1316, and 1342 Bronte Road, Oakville, ON  
Diameter: 200 mm  
DATUM: Geodetic  
BH LOCATION: N 4807755.918 E 600816.809

**DRILLING DATA**  
Method: Hollow Stem Augers  
Date: Aug/13/2020

REF. NO.: 20-186-100  
ENCL NO.: 5

SOIL PROFILE			SAMPLES			GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m			PID (ppm)	CGD (ppm)						
130.6	<b>TOPSOIL:</b>														GR SA SI CL
130.0	<b>SILTY SAND:</b> Brown, moist, some clay.		1	SS	5										Metals and OCPs
129.9	<b>SAND:</b> Brown, very moist to wet, some clay, trace gravel.		2	SS	2										
128.8	<b>CLAYEY SILT:</b> Brown, very moist.		3	SS	5										
128.4	<b>SANDY SILT TILL:</b> Brown, very moist to wet, trace gravel and some clay.		4	SS	10										
127.6	<b>SILT TO SILTY CLAY:</b> Grey, very moist to wet, trace gravel.		5	SS	7										
126.1	<b>SILTY SAND TILL:</b> Brown/grey, moist, some gravel and cobbles.		6	SS	75										
124.5	<b>SAND AND GRAVEL:</b> Brown/grey, moist, some silt and cobbles.		7	SS	66										
123.9	<b>END OF BOREHOLE</b> Notes: 1) Borehole backfilled with bentonite upon completion.														

DS ENVIRO 0-50 PPM-2021 20-186-100 - AREA 2.GPJ DS.GDT 7/6/23

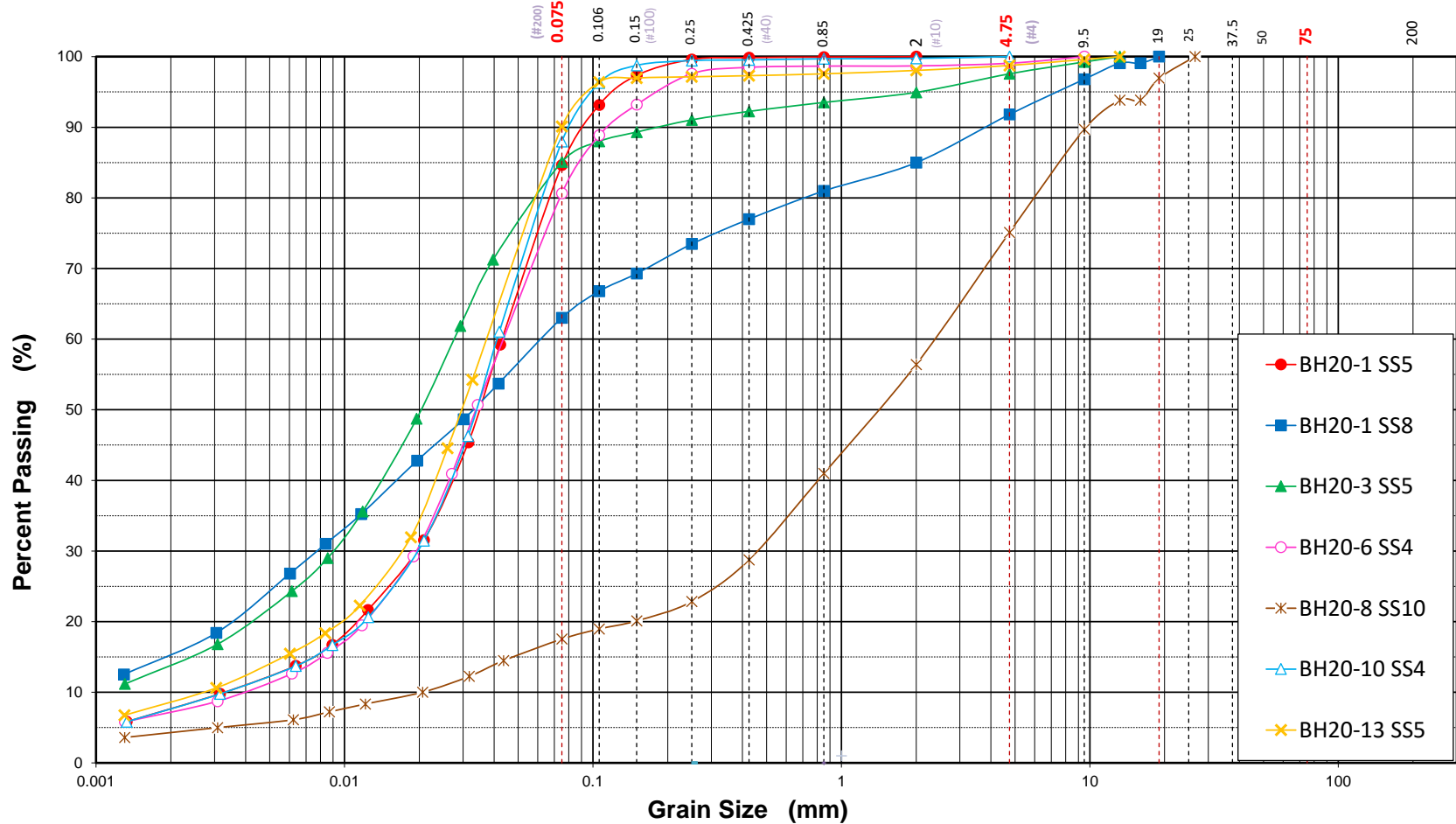
GROUNDWATER ELEVATIONS  
Measurement 1st 2nd 3rd 4th


GRAPH NOTES

+ 3 , × 3 : Numbers refer to Sensitivity

○ = 3% Strain at Failure

# Particle Size Distribution (ASTM-D421/D422)



Silt and Clay		Sand			Gravel		Cobble +
Clay	Silt	Fine	Medium	Coarse	Fine	Coarse	
 <p><b>DS CONSULTANTS LTD.</b> 6221 Highway 7, Unit 16 Vaughan, Ontario, L4H 0K8 Telephone: (905) 264-9393 <a href="http://www.dsconsultants.ca">www.dsconsultants.ca</a></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





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# Appendix C



## 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
<b>Sample Name</b>	MW20-1 SS3	MW20-1 SS4	MW20-2 SS3	MW20-2 SS7	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2
<b>Sample Matrix</b>	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
<b>BTEX</b>												
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
<b>Sample Name</b>	MW20-8 SS6	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>BTEX</b>								
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
<b>Sample Name</b>	MW20-1 SS1	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	BH20-7 SS1	SDUP4
<b>Sample Matrix</b>	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
<b>Hydrides</b>												
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
<b>Sample Name</b>	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1	SDUP6
<b>Sample Matrix</b>	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
<b>Hydrides</b>												
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
<b>Sample Name</b>	MW20-1 SS1	MW20-1 SS3	MW20-1 SS4	MW20-2 SS1	MW20-2 SS3	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1
<b>Sample Matrix</b>	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
<b>Metals and Inorganics</b>												
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
<b>Sample Name</b>	MW20-1 SS1	MW20-1 SS3	MW20-1 SS4	MW20-2 SS1	MW20-2 SS3	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1
<b>Sample Matrix</b>	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
<b>Metals and Inorganics (continued)</b>												
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
<b>Sample Name</b>	MW20-5 SS1	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2	BH20-6 SS1	SDUP3	BH20-7 SS1
<b>Sample Matrix</b>	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
<b>Metals and Inorganics</b>												
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
<b>Sample Name</b>	SDUP4	MW20-8 SS1	MW20-8 SS6	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1
<b>Sample Matrix</b>	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
<b>Metals and Inorganics</b>												
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
<b>Sample Name</b>	BH20-14 SS1	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9	SDUP6
<b>Sample Matrix</b>	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
<b>Metals and Inorganics</b>									
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
<b>Organochlorine Pests (OCs)</b>												
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
<b>Sample Name</b>	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3	BH20-7 SS1	SDUP4
<b>Sample Matrix</b>	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
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**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
<b>Sample Name</b>	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
<b>Sample Matrix</b>	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
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**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
<b>Sample Name</b>	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil

Parameter	Units	RL	L1	L2	Result	Result	Result	Result	Result	Result	Result	
<b>Organochlorine Pests (OCs) (continued)</b>												
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
<b>Sample Name</b>	MW20-1 SS1	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	BH20-7 SS1	SDUP4
<b>Sample Matrix</b>	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
<b>Other (ORP)</b>												
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
<b>Sample Name</b>	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1	SDUP6
<b>Sample Matrix</b>	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
<b>Other (ORP)</b>												
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							





# FINAL REPORT

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
<b>Sample Name</b>	MW20-1 SS3	MW20-2 SS3	MW20-5 SS8	SDUP2	MW20-8 SS6
<b>Sample Matrix</b>	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
<b>PAHs</b>									
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



# FINAL REPORT

CA14406-AUG20 R

**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
<b>Sample Name</b>	MW20-2 SS1	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3	BH20-7 SS1	SDUP4
<b>Sample Matrix</b>	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
<b>Pesticides Surrogate</b>												
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
<b>Sample Name</b>	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1	BH20-14 SS1
<b>Sample Matrix</b>	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
<b>Pesticides Surrogate</b>											
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
<b>Sample Name</b>	MW20-1 SS3	MW20-2 SS3	MW20-5 SS3	SDUP1	MW20-5 SS8	SDUP2	MW20-8 SS6	BH20-6 SS1 VOC's
<b>Sample Matrix</b>	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
<b>PHCs</b>												
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)**

<b>Sample Number</b>	38	39
<b>Sample Name</b>	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>PHCs</b>						
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)**

<b>Sample Number</b>	9	13	21	22	29
<b>Sample Name</b>	MW20-1 SS3	MW20-2 SS3	MW20-5 SS8	SDUP2	MW20-8 SS6
<b>Sample Matrix</b>	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
<b>SVOC Surrogates</b>									
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



# FINAL REPORT

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
<b>Sample Name</b>	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>THMs (VOC)</b>									
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
<b>Sample Name</b>	MW20-1 SS4	MW20-2 SS1	MW20-2 SS7	MW20-3 SS1	BH20-4 SS1	MW20-5 SS1	BH20-6 SS1	SDUP3
<b>Sample Matrix</b>	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
<b>VOC Surrogates</b>											
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





# FINAL REPORT

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
<b>Sample Name</b>	BH20-7 SS1	SDUP4	MW20-8 SS1	BH20-9 SS1	MW20-10 SS1	SDUP5	BH20-12 SS1	MW20-13 SS1
<b>Sample Matrix</b>	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
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-			90	91	92	96	96	87	95	76

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

Sample Number	36	37	38	39
<b>Sample Name</b>	BH20-14 SS1	BH20-6 SS1	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>VOC Surrogates</b>								
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
<b>Sample Name</b>	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>VOCs</b>									
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
<b>VOCs (continued)</b>									
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
<b>Sample Name</b>	MW20-1 SS4	MW20-2 SS7	BH20-6 SS1 VOC's	BH20-12 SS5	BH20-13 SS9
<b>Sample Matrix</b>	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
<b>VOCs (continued)</b>									
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

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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

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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

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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



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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



# FINAL REPORT

CA14406-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	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



# FINAL REPORT

CA14406-AUG20 R

## QC SUMMARY

### Mercury by CVAAS

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

Parameter	QC batch Reference	Units	RL	Method Blank	Duplicate		LCS/Spike Blank			Matrix Spike / Ref.		
					RPD	AC (%)	Spike Recovery (%)	Recovery Limits (%)		Spike Recovery (%)	Recovery Limits (%)	
								Low	High		Low	High
Mercury	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



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

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**

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**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](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

No: \_\_\_\_\_ Page 1 of 3

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

Temperature Upon Receipt (°C) 17.7  
 Type: icc

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

Quotation #: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Project #: 20-186-100 Site Location/ID: Bronte Road  
**TURNAROUND TIME (TAT) REQUIRED**  
 Regular TAT (5-7days) TAT's are quoted in business days (exclude statutory holidays & weekends). Samples received after 6pm on weekends. TAT begins next business day.  
 1 Day  2 Days  3 Days  4 Days  
**RUSH TAT (Additional Charges May Apply):**  
**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**  
**Regulation 153/04:**  
 Table 1  Res/Park  Soil Texture:  Coarse  Medium/ Fine  
 Table 2  Ind/Com  Storm  
 Table 3  Agri/Other  Other:  
 Table \_\_\_\_\_  
**RECORD OF SITE CONDITION (RSC) YES  NO**   
**Other Regulations:**  
 Reg 347/558 (3 Day min TAT)  
 PWOO  MMR  Storm  
 CCME  Other:  
 MISA  
**Sewer By-Law:**  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

**ANALYSIS REQUESTED**  
 Specify Due Date: \_\_\_\_\_  
 Other (please specify): \_\_\_\_\_  
**Water Characterization Pkg**  
 Specify Pkg: \_\_\_\_\_  
 General  Extended   
**Sewer Use:**  
 General  Aroclor   
 All Ind PAHs, ASNs, CPs   
**PAHs only**  
 PAHs  Total   
**SVOCs**  
 All Ind PAHs, ASNs, CPs   
**PCBs**  
 Total  Aroclor   
**F1-F4 + BTEX**  
 F1-F4 only   
**PHC**  
 no BTEX   
**VOCs**  
 all Ind BTEX   
**BTEX only**  
 Organochlorine or specify other   
**Pesticides**  
 Pest   
**Other** (please specify): \_\_\_\_\_  
**TCLP**  
 Specify tests:  
 TCLP  MCL  VOC  PCB  Br/P  ABN  ignit.

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	COMMENTS:																
					Field Filtered (Y/N)	Metals & Inorganics (Cd, Ni, water) (Cl, Na, water) (Cu, Ni, Hg, Pb, Bi)(WVSL, EC, SAR, soil)	Full Metals Suite (ICP metals plus Bi)(HWS-soil only) Hg, Cr, Ni, Se, Ag, Tl, U, Zn, Sp, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Sv, Ag, Tl, U, Zn	PAHs only	SVOCs	PCBs	F1-F4 + BTEX	PHC	VOCs	BTEX only	Pesticides	Other	Water Characterization Pkg	TCLP			
1 MW20-1 SS1	Aug 17, 2020	10:00	1	Soil	✓																
2 MW20-1 SS3	Aug 13/17, 2020	3:45/10:15	4	Soil																	
3 MW20-1 SS4	August 13, 2020	4:00	3	Soil																	
4 MW20-1 SS6	Aug 13, 2020	4:10	3	Soil																	
5 MW20-2 SS1	Aug 17, 2020	10:30	2	Soil	✓																
6 MW20-2 SS3	Aug 13/17, 2020	4:20/10:45	4	Soil																	
7 MW20-2 SS4	Aug 13, 2020	4:30	3	Soil																	
8 MW20-2 SS7	Aug 13, 2020	4:45	3	Soil																	
9 MW20-3 SS1	Aug 17, 2020	11:00	2	Soil																	
10 BH20-4 SS1	Aug 17, 2020	11:15	2	Soil																	
11 MW20-5 SS1	Aug 17, 2020	11:30	2	Soil																	
12 MW20-5 SS3	Aug 17, 2020	3:00/11:45	3	Soil																	

Observations/Comments: (Special Instructions)  
 Sampled By (NAME): Aidan Deak  
 Relinquished By (NAME): Aidan Deak  
 Signature: [Signature]  
 Date of Issue: 13 Oct 2019  
 Revision # 1.3  
 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](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: 08/17/20 (mm/dd/yy)  
 Date: 08/17/20 (mm/dd/yy)  
 Signature: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date of Issue: 13 Oct 2019  
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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 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8060 Fax: 519-672-0361

# Request for Laboratory Services and CHAIN OF CUSTODY

No: \_\_\_\_\_

Page 2 of 3

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): 7.7 Type: ice

## Laboratory Information Section - Lab use only

LAB LIMS #: CA-10406-AUG20

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

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

Quotation #: \_\_\_\_\_

Project #: 20-186-100

P.O. #: \_\_\_\_\_

Site Location/ID: Bronte Road

### TURNAROUND TIME (TAT) REQUIRED

Regular TAT (5-7days)  
TAT's are quoted in business days (exclude statutory holidays & weekends).  
Samples received after 6pm or on weekends: TAT begins next business day

RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
**PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION**

Specify Due Date: \_\_\_\_\_  
NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

### REGULATIONS

Regulation 153/04:  
 Table 1  Res/Park Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agri/Other  Medium/  
 Table \_\_\_\_\_  Fine

Other Regulations:  
 Reg 347/558 (3 Day min TAT)  
 PWOO  MMR  Storm  
 CCME  Other:  
 MISA

### RECORD OF SITE CONDITION (RSC) YES NO

Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality

### ANALYSIS REQUESTED

Field Filtered (Y/N)	Metals & Inorganics (Cd, Ni, water) Ind CMI, CN Hg PH(B/HWS), EC, SAR, Sd	Full Metals Suite (ICP metals plus B(HWS)-soil only) Hg, Cr, Ni	ICP Metals only Sg, Ag, Tl, U, Zn Se, As, Ba, B, Cd, Cr, Co, Cu, Pb, Mo, Ni	PAHs only Sg, Ag, Tl, U, Zn	SVOCs All Ind PAHs, APMs, CPMs	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	Other (please specify)	Water Characterization Pkg Specify pkg: General <input type="checkbox"/> Extended <input type="checkbox"/>	TCLP		
														Specify tests TCLP <input type="checkbox"/> Mda <input type="checkbox"/> IOC <input type="checkbox"/> FCB <input type="checkbox"/> Brod <input type="checkbox"/> ABN <input type="checkbox"/> gmit <input type="checkbox"/>	Specify TCLP	
							<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"/>									
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		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>									
		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>									

Matrix: Soil  
Time Sampled: 3:00-3:10  
Bottles: 3

COMMENTS:

HOLD FOR PHCS  
HOLD FOR PHCS  
HOLD FOR PHCS

Observations/Comments/Special Instructions

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

Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. scanning 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](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.

## Request for Laboratory Services and Chain of Custody

No: \_\_\_\_\_

Page 3 of 3

<p>Received By: <u>Kim Sheard</u> (mm/dd/yy)        Received Date: <u>08.17.20</u>        Received Time: <u>15:00</u> (hr.:min)</p> <p>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</p> <p>Invoice Information  <input type="checkbox"/> (same as Report Information)        Company: DS Consultants        Contact: Paviola Derveni        Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8        Phone: 905 264 9393        E-mail: accounting@dsconsultants.ca</p>			<p>Received By (signature): _____        Cooling Agent Present: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>        Custody Seal Present: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>        Custody Seal Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>        Temperature Upon Receipt (°C) <u>7.7</u></p> <p>Quotation #: _____ P.O. #: _____        Project #: 20-186-100 Site Location/ID: _____</p> <p><b>TURNAROUND TIME (TAT) REQUIRED</b>        TAT's are quoted in business days (exclude statutory holidays &amp; weekends).        Samples received after 6pm or on weekends: TAT begins next business day  <input checked="" type="checkbox"/> Regular TAT (5-7days) <input type="checkbox"/> 1 Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 3 Days <input type="checkbox"/> 4 Days  <b>RUSH TAT (Additional Charges May Apply):</b></p> <p><b>PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION</b>        NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY</p>			<p>LAB LIMS #: <u>CA-14406-Aug 20</u></p>																																																																
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<p>Observations/Comments/Special Instructions</p>			<p>Signed By (NAME): <u>Aidan Dook</u>        Reinquished by (NAME): <u>Aidan Dook</u>        Signature: _____        Signature: _____        Date: <u>08.17.20</u> (mm/dd/yy)        Date: <u>08.17.20</u> (mm/dd/yy)</p> <p>Pink Copy - Client        Yellow &amp; White Copy - SGS</p>																																																																			





## 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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-5	Trip Blank
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>BTEX</b>							
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>Hydrides</b>									
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>Metals and Inorganics</b>									
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>Na</b>									
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
<b>Sample Name</b>	MW20-3	MW20-10
<b>Sample Matrix</b>	Ground Water	Ground Water
<b>Sample Date</b>	20/08/2020	19/08/2020

Parameter	Units	RL	L1	Result	Result
<b>Organochlorine Pests (OCs)</b>					
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
<b>Organochlorine Pests (OCs) (continued)</b>					
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-3	MW20-10	DUP-1	DUP-2
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>Other (ORP)</b>									
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-5
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>PAHs</b>						
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-5
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>PAHs (continued)</b>						
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
<b>Sample Name</b>	MW20-3	MW20-10
<b>Sample Matrix</b>	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>Pesticides Surrogate</b>					
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-5
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>PHCs</b>						
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-5
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>SVOC Surrogates</b>						
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
<b>Sample Name</b>	MW20-1	MW20-2	Trip Blank
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>THMs (VOC)</b>						
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
<b>Sample Name</b>	MW20-1	MW20-2	MW20-3	MW20-10	Trip Blank
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>VOC Surrogates</b>								
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
<b>Sample Name</b>	MW20-1	MW20-2	Trip Blank
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>VOCs</b>						
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
<b>Sample Name</b>	MW20-1	MW20-2	Trip Blank
<b>Sample Matrix</b>	Ground Water	Ground Water	Ground Water
<b>Sample Date</b>	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
<b>VOCs (continued)</b>						
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
1,1,2,2-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

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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

## 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



# FINAL REPORT

CA14584-AUG20 R1

## 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

## QC SUMMARY

### Metals in aqueous samples - ICP-MS

Method: SM 3030/EPA 200.8 | Internal ref.: ME-CA-ENVISPE-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](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

No: 016586

Page of

### Laboratory Information Section - Lab use only

Received By: *[Signature]*  
 Received Date: 08/20/2020 (mm/dd/yy)  
 Received Time: 12:00 (hr: min)

Custody Seal Present: Yes  No   
 Custom Seal Intact: Yes  No

Cooling Agent Present: Yes  No   
 Temperature Upon Receipt (°C): 6.5°C

LAB LIMS #:   
 CA 14584 -  
 AUG 20

### REPORT INFORMATION

Company: *DS Consultants*  
 Contact: *Kristin Olsen*  
 Address: *6121 Hwy 7, Unit 10*  
*Veryan, ON*

Company:   
 Contact:   
 Address:   
 Phone:   
 Fax:   
 Email: *Kristin.Olsen@dsconsultants.ca*

Quotation #:   
 Project #: *20-186-100*

P.O. #:   
 Site Location/ID: *1300 Bridge Rd*

Company:  (same as Report Information)  
 Contact:   
 Address:   
 Phone:   
 Fax:   
 Email: *according to dsconsultants.ca*

Regular TAT (5-7 days)   
 RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days

TURNAROUND TIME (TAT) REQUIRED

TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 9pm or on weekends: TAT begins next business day

REGULATIONS

Other Regulations:   
 Reg 347/558 (3 Day min TAT)  
 PWOO  MMER  
 OCME  Other:   
 MISA  
 ODSWS Not Reportable - See note

Specify Due Date:   
 \*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

ANALYSIS REQUESTED

O.Reg 153/04  O.Reg 406/19

Table 1  Res/Park  Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agr/Other  Medium/Fine  
 Table  MISA

Soil Volume  <350m3  >350m3

RECORD OF SITE CONDITION (RSC)  YES  NO

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP
Field Filtered (Y/N)							
Metals & Inorganics <small>(incl CrVI, CN, Hg, Pb, B(HWS), EC, SAR, soil) (Cl, Na-water)</small>							Specify TCLP tests
Full Metals Suite <small>(ICP metals plus B(HWS-soil only) Hg, CrVI)</small>							
ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni</small>							
PAHs only							
SVOCs <small>all incl PAHs, ABNs, CPs</small>							
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor							
F1-F4 + BTEX							
F1-F4 only <small>no BTEX</small>							
VOCs <small>all incl BTEX</small>							
BTEX only							
Pesticides <small>Organochlorine or specify other</small>							
Appendix 2: 406/19 Leachate Screening Levels Table:							
Sewer Use: Specify pkg:							
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>							
							Specify TCLP tests
							DMAI
							VOC
							PCB
							DiOP
							DiBN
							DiPht

COMMENTS:

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX
1 MW20-1	8/19/2020	4:00	11	GW
2 MW20-2	8/19/2020	4:00	11	GW
3 MW20-3	8/20/2020	4:00	4	GW
4 MW20-5	8/19/2020	4:00	6	GW
5 MW20-10	8/19/2020	4:00	4	GW
6 DWP-1	8/19/2020	4:00	3	GW
7 DWP-2	8/20/2020	4:00	3	GW
8 Trip-Blank	-	-	-	-
9				
10				
11				
12				

Observations/Comments/Special Instructions

Sampled By (NAME): *Meyson Jafari* Signature: *[Signature]* Date: *8/20/2020* (mm/dd/yy)

Relinquished by (NAME): *Meyson Jafari* Signature: *[Signature]* Date: *8/20/2020* (mm/dd/yy)

Revision # 1.4  
 Date of Issue: 22 May 2020  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection/handling and transportation of samples. (2) Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Pink Copy - Client  
 Yellow & White Copy - SGS



## FINAL REPORT

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
<b>BTEX</b>						
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
<b>Hydrides</b>											
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	
<b>Hydrides</b>												
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
<b>Hydrides</b>				
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	
<b>Metals and Inorganics</b>											
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
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics (continued)</b>												
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	
<b>Metals and Inorganics</b>												
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
<b>Sample Name</b>	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics</b>												
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)**

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	
<b>Metals and Inorganics</b>												
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	
<b>Metals and Inorganics</b>												
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
<b>Metals and Inorganics (continued)</b>											
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
<b>Organochlorine Pests (OCs)</b>											
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	<b>0.17</b>	<b>0.06</b>	<b>0.45</b>	<b>0.45</b>
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
<b>Sample Name</b>	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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)

**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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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)

**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
<b>Organochlorine Pests (OCs)</b>					
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
<b>Organochlorine Pests (OCs) (continued)</b>					
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
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>Other (ORP)</b>							
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
<b>PAHs</b>							
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
<b>PCBs</b>				
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	
<b>Pesticides Surrogate</b>												
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	
<b>Pesticides Surrogate</b>												
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	
<b>Pesticides Surrogate</b>												





# FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

<b>Sample Number</b>	29	30	32	33	34	35	36	37
<b>Sample Name</b>	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	38	39	40	41	42	43	45	46
<b>Sample Name</b>	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	47	48
<b>Sample Name</b>	SDUP10	SDUP11
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	8	10	12
<b>Sample Name</b>	SB1-S1	SB3-S1	TR1-S1
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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**



# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

Sample Number	8	10	12
<b>Sample Name</b>	SB1-S1	SB3-S1	TR1-S1
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>PHCs (continued)</b>						
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
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>SVOC Surrogates</b>							
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



# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

<b>Sample Number</b>	8	10
<b>Sample Name</b>	SB1-S1	SB3-S1
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
<b>THMs (VOC)</b>					
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)**

<b>Sample Number</b>	8	10	13	14	15	16	17	18
<b>Sample Name</b>	SB1-S1	SB3-S1	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>											
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



# FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

<b>Sample Number</b>	19	20	21	22	23	24	25	26
<b>Sample Name</b>	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		89	91	90	90	97	91	90	82	

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

<b>Sample Number</b>	27	28	29	30	32	33	34	35
<b>Sample Name</b>	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		80	88	88	87	92	85	85	86	

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

<b>Sample Number</b>	36	37	38	39	40	41	42	43
<b>Sample Name</b>	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		70	83	83	81	76	79	93	83	

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

<b>Sample Number</b>	45	46	47	48
<b>Sample Name</b>	SDUP8	SDUP9	SDUP10	SDUP11
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>VOC Surrogates</b>							



# FINAL REPORT

CA14587-AUG20 R1

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
<b>VOC Surrogates (continued)</b>							
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
<b>VOCs</b>					
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





# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

<b>Sample Number</b>	8	10
<b>Sample Name</b>	SB1-S1	SB3-S1
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
<b>VOCs (continued)</b>					
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

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

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

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

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### 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](http://www.sgs.com/terms_and_conditions.htm). The Client's attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any other holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents.

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-- End of Analytical Report --

## Request for Laboratory Services and CHAIN OF CUSTODY

Received By: Justin Pe  
 Received Date: 08/20/20 (mm/dd/yy)  
 Received Time: 17:45 (hr:min)

Received By (signature): \_\_\_\_\_  
 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 #: CA14587- AUG 20

### REPORT INFORMATION

Company: DS Gasworks  
 Contact: Kristin Olsen  
 Address: 6221 Yong Hwy F  
Youngburg, ON

Company:  (same as Report Information)  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 1500 Bantrel  
 Turnaround Time (TAT) Required: \_\_\_\_\_  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day.

Phone: \_\_\_\_\_  
 Fax: Kristin.Olsen@dsworks.com  
 Email: -con

Phone: \_\_\_\_\_  
 Email: accounting@dsworks.com

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  Agri/Other  Medium/Fine  
 Table \_\_\_\_\_  
 Soil Volume  <350m3  >350m3

Other Regulations: \_\_\_\_\_  
 Sewer By-Law: \_\_\_\_\_  
 Sanitary  Storm  
 PWO  MMER  
 OCME  Other: \_\_\_\_\_  
 MISA  
 ODWS Not Reportable \*See note

RECORD OF SITE CONDITION (RSC)  YES  NO

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	Field Filtered (Y/N) <input checked="" type="checkbox"/>	Metals & Inorganics <small>incl CrVI, CN, Hg, pH, (B)(HWS), EC, SAR, Soil (Cl, Na-water)</small>	Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>	ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Ni, Pb, Mo, Ni</small>	PAHs only	SVOCs <small>all incl PAHs, ABNs, CPs</small>	PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor	F1-F4 + BTEX	F1-F4 only <small>no BTEX</small>	VOCs <small>all incl BTEX</small>	BTEX only	Pesticides <small>Organochlorine or specify other</small>	Appendix 2: 406/19 Leachate Screening Levels Table:	Sewer Use: Specify pkg:	Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>	TCLP Specify TCLP tests <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> B(a)p <input type="checkbox"/> ABN <input type="checkbox"/> D(g)nl
2 SB2-S1			2		<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 SB3-S1			5		<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 SB4-S1			2		<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 TR1-S1			2		<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 D2-S3			1		<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 D7-S3			1		<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 D9-S3			1		<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 D3-S3			1		<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 D4-S3			1		<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 D6-S3			1		<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 D1-S1			1		<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"/>					

Observations/Comments/Special Instructions

Sampled By (NAME): Andou Dock Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)  
 Relinquished by (NAME): Andou Dock Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)

Revision # 1.4  
 Date of Issue: 22 May 2020  
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sampling, 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 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](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Pink Copy - Client  
 Yellow & White Copy - SGS



Received By: Shirley P  
Received Date: 08/20/2010 (mm/dd/yy)  
Received Time: 11:45 (hr:min)

Received By (signature): \_\_\_\_\_  
Custody Seal Present: Yes  No   
Custody Seal Intact: Yes  No   
Cooling Agent Present: Yes  No  Type: ice  
Temperature Upon Receipt (°C): 10.2  
P.O. #: \_\_\_\_\_  
Site Location/ID: 1300 Riverview Rd

Company: DS  
Contact: Kristin Olsen  
Address: 6221 Hurty Vaughan, ON  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Fax: \_\_\_\_\_  
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  
Regulation 153/04:  
 Res/PAK  
 Table 2  
 Table 3  
 Table  
Soil Texture:  
 Coarse  
 Medium  
 Fine  
Other Regulations:  
 Reg 347/558 (3 Day min TAT)  
 PW/OO  
 C/OME  
 MISA  
Sewer By-Law:  
 Sanitary  
 Storm  
Municipality: \_\_\_\_\_

ANALYSIS REQUESTED  
M & I  
Metals & Inorganics  
Full Metals Suite  
ICP Metals only  
PAHs only  
SVOCs  
PCBs  
F1-F4 + BTEX  
VOCs  
BTEX only  
Pesticides  
Other (please specify)  
Sewer Use:  
Water Characterization Pkg  
TCLP  
M&I  
VOC  
PCB  
BiolaP  
ABN  
Ignite

RECORD OF SITE CONDITION (RSC) YES  NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	Field Filtered (Y/N)	M & I	SVOC	PCB	PHC	VOC	Pest	Other	TCLP
1	D5-S1	8/20/2010	1	Soil									
2	D8-S1												
3	D10-S1												
4	D18-S1												
5	<del>D10-S1</del>												
6	D12-S1												
7	D13-S1												
8	D14-S1												
9	D16-S1												
10	D11-S1												
11	D15-S1												
12	D17-S1												

Observations/Comments/Special Instructions

Sampled By (NAME): Adrian Dack Signature: \_\_\_\_\_ Date: 08/20/2010 (mm/dd/yy)  
Retinquished by (NAME): Adrian Dack Signature: \_\_\_\_\_ Date: 08/20/2010 (mm/dd/yy)  
Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection and preparation 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.htm](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.

## Request for Laboratory Services and CHAIN OF CUSTODY

### Laboratory Information Section - Lab use only

Received By: Sue P  
 Received Date: 08/12/20 (mm/dd/yy)  
 Received Time: 1:45:20 (hr : min)

Received By (signature): \_\_\_\_\_  
 Custody Seal Present:  Yes  No  
 Custody Seal Intact:  Yes  No  
 Cooling Agent Present:  Yes  No Type: Ice  
 Temperature Upon Receipt (°C): 9.8

LAB LIMS # \_\_\_\_\_

### REPORT INFORMATION

Company: DS  
 Contact: Kristin Olsen  
 Address: 6221 Hwy 7, Unit 16

### INVOICE INFORMATION

(same as Report Information)  
 Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 1300 Stone Rd

Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

TURNAROUND TIME (TAT) REQUIRED  
 Regular TAT (5-7 days)  
 RUSH TAT (Additional Charges May Apply):  
 1 Day  2 Days  3 Days  4 Days

Email: Kristin.Olsen@sgs.com  
accounting@sgs.com

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

Regulation 153/04:  
 Res/Park  Soil Texture:  
 Table 2  Ind/Com  Coarse  
 Table 3  Agr/Other  Medium  
 Table \_\_\_\_\_  Fine

### ANALYSIS REQUESTED

M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)
Field Filtered (Y/N)						
<b>Metals &amp; Inorganics</b> Incl Cr,VI, CN,Hg pH,(B)(HWS),EC,SAR--soil) (Cl, Na-water)						
<b>Full Metals Suite</b> ICP metals plus B(HWS--soil only) Hg, Cr,VI						
<b>ICP Metals only</b> Sb,As,Ba,Bi,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Ti,U,V,Zn						
<b>PAHs only</b>						
<b>SVOCs</b> all incl PAHs, ABNs, CPs						
<b>PCBs</b> Total <input type="checkbox"/> Aroclor <input type="checkbox"/>						
<b>F1-F4 + BTEX</b>						
<b>F1-F4 only</b> no BTEX						
<b>VOCs</b> all incl BTEX						
<b>BTEX only</b>						
<b>Pesticides</b> Organochlorine or specify other						
<b>Sewer Use:</b> Specify pkg:						
<b>Water Characterization Pkg</b> General <input type="checkbox"/> Extended <input type="checkbox"/>						
<b>TCLP</b> Specify TCLP tests DMSI VOC PCB Alq/P MSN light						

### COMMENTS:

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	RECORD OF SITE CONDITION (RSC)	
					YES	NO
1 D18-S1	8/20/20	P.M	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						

Observations/Comments: Special Instructions

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)

Revision #: 1.2  
 Date of Issue: 09 Sept, 2019  
 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 (or 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](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.





Environment, Health & Safety - Lakeland: 185 Concession St., Lakeland, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment  
 - London: 657 Concorium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-948-8060 Fax: 519-672-0361

### Request for Laboratory Services and CHAIN OF CUSTODY

NO: 014096  
 Page 4 of 4

Received By: Scott R  
 Received Date: 08/20/20 (mm/dd/yy)  
 Received Time: 11:45 (hr:min)

Received By (signature): \_\_\_\_\_  
 Custody Seal Present:  Yes  No  
 Custody Seal Intact:  Yes  No

Company: DS  
 Contact: Kristin Olsen  
 Address: 6221 Hwy 7, Unit B  
Vaughan, ON

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 Cooling Agent Present:  Yes  No  
 Temperature Upon Receipt (°C): 16.92, 18  
 Type: 1e

REGULATIONS

REGULATION 153/04:  
 Rest/Park  
 Table 1  
 Table 2  
 Table 3  
 Inrd/Com  
 Agr/Other  
 Fine

Soil Texture:  
 Coarse  
 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

RECORD OF SITE CONDITION (RSC)  YES  NO

REPORT INFORMATION

INVOICE INFORMATION

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

REGULATIONS

REGULATION 153/04:  
 Rest/Park  
 Table 1  
 Table 2  
 Table 3  
 Inrd/Com  
 Agr/Other  
 Fine

Soil Texture:  
 Coarse  
 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

RECORD OF SITE CONDITION (RSC)  YES  NO

Analysis Information

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 Cooling Agent Present:  Yes  No  
 Temperature Upon Receipt (°C): 16.92, 18  
 Type: 1e

Regular TAT (5-7 days)   
 RUSH TAT (Additional Charges May Apply):   
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 1 Day  2 Days  3 Days  4 Days

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

TURNAROUND TIME (TAT) REQUIRED  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day

P.O. #: \_\_\_\_\_  
 Site Location/ID: 1500 Stone Rd

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED							TCLP								
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)									
D30-S1	8/20/20	P.M	1	Soil	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,Be,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	Other (please specify)	Sewer Use: Specify pkg: General <input type="checkbox"/> Extended <input type="checkbox"/>	Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>	TCLP Specify tests TCLP <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> B&G <input type="checkbox"/> ABN <input type="checkbox"/> Ignit. <input type="checkbox"/>
SD up 7																				
SD up 8																				
SD up 9																				
SD up 10																				
SD up 11																				

Observations/Comments/Special Instructions

Sampled By (NAME): Arden Dobb Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)

Relinquished by (NAME): Arden Dobb Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)

Retention of Samples: \_\_\_\_\_

Yellow & White Copy - SGS  
 Pink Copy - Client

NOTE: Submission of samples to SGS is considered authorization for completion of work. Signatures may appear on this form or be retained on file in the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unlimited number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under its General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request.) Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.



## FINAL REPORT

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
<b>BTEX</b>						
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
<b>Hydrides</b>											
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)**

<b>Sample Number</b>	20	21	22	23	24	25	26	27
<b>Sample Name</b>	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1	D16-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Hydrides</b>												
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)**

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

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

Parameter	Units	RL	L1	Result
<b>Hydrides</b>				
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)**

<b>Sample Number</b>	8	9	10	11	12	13	14	15
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics</b>											
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
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics (continued)</b>												
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	
<b>Metals and Inorganics</b>												
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)

Sample Number	24	25	26	27	28	29	30	32
<b>Sample Name</b>	D12-S1	D13-S1	D14-S1	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics</b>												
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)**

Sample Number	33	34	35	36	37	38	39	40
<b>Sample Name</b>	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics</b>												
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
<b>Sample Name</b>	D27-S1	D29-S1	D30-S1	SDUP7	SDUP8	SDUP9	SDUP10	SDUP11
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Metals and Inorganics</b>												
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
<b>Metals and Inorganics (continued)</b>											
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
<b>Organochlorine Pests (OCs)</b>											
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
<b>Sample Name</b>	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1	D5-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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	
<b>Organochlorine Pests (OCs)</b>												
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	
<b>Organochlorine Pests (OCs) (continued)</b>												
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
<b>Organochlorine Pests (OCs)</b>					
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
<b>Organochlorine Pests (OCs) (continued)</b>					
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
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>Other (ORP)</b>							
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
<b>PAHs</b>							
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
<b>PCBs</b>				
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	
<b>Pesticides Surrogate</b>												
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	
<b>Pesticides Surrogate</b>												
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	
<b>Pesticides Surrogate</b>												



# FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

<b>Sample Number</b>	29	30	32	33	34	35	36	37
<b>Sample Name</b>	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1	D23-S1	D24-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	38	39	40	41	42	43	45	46
<b>Sample Name</b>	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1	SDUP8	SDUP9
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	47	48
<b>Sample Name</b>	SDUP10	SDUP11
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	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)**

<b>Sample Number</b>	8	10	12
<b>Sample Name</b>	SB1-S1	SB3-S1	TR1-S1
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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**





# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

<b>Sample Number</b>	8	10	12
<b>Sample Name</b>	SB1-S1	SB3-S1	TR1-S1
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>PHCs (continued)</b>						
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)**

<b>Sample Number</b>	8	9	10	11
<b>Sample Name</b>	SB1-S1	SB2-S1	SB3-S1	SB4-S1
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>SVOC Surrogates</b>							
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



# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

<b>Sample Number</b>	8	10
<b>Sample Name</b>	SB1-S1	SB3-S1
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
<b>THMs (VOC)</b>					
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)**

<b>Sample Number</b>	8	10	13	14	15	16	17	18
<b>Sample Name</b>	SB1-S1	SB3-S1	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>VOC Surrogates</b>										
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



# FINAL REPORT

CA14587-AUG20 R1

Client: DS Consultants

Project: 20-186-100

Project Manager: Kirstin Olsen

Samplers: Aidan Dools

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

<b>Sample Number</b>	19	20	21	22	23	24	25	26
<b>Sample Name</b>	D1-S1	D5-S1	D8-S1	D10-S1	D18-S1	D12-S1	D13-S1	D14-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		89	91	90	90	97	91	90	82	

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

<b>Sample Number</b>	27	28	29	30	32	33	34	35
<b>Sample Name</b>	D16-S1	D11-S1	D15-S1	D17-S1	D19-S1	D20-S1	D21-S1	D22-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		80	88	88	87	92	85	85	86	

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

<b>Sample Number</b>	36	37	38	39	40	41	42	43
<b>Sample Name</b>	D23-S1	D24-S1	D25-S1	D26-S1	D28-S1	D27-S1	D29-S1	D30-S1
<b>Sample Matrix</b>	soil	soil	soil	soil	soil	soil	soil	soil
<b>Sample Date</b>	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	
<b>VOC Surrogates</b>												
Surr TCMX	Surr Rec %	-		70	83	83	81	76	79	93	83	

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

<b>Sample Number</b>	45	46	47	48
<b>Sample Name</b>	SDUP8	SDUP9	SDUP10	SDUP11
<b>Sample Matrix</b>	soil	soil	soil	soil
<b>Sample Date</b>	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
<b>VOC Surrogates</b>							



# FINAL REPORT

CA14587-AUG20 R1

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
<b>VOC Surrogates (continued)</b>							
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
<b>VOCs</b>					
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



# FINAL REPORT

CA14587-AUG20 R1

**Client:** DS Consultants

**Project:** 20-186-100

**Project Manager:** Kirstin Olsen

**Samplers:** Aidan Dools

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

<b>Sample Number</b>	8	10
<b>Sample Name</b>	SB1-S1	SB3-S1
<b>Sample Matrix</b>	soil	soil
<b>Sample Date</b>	20/08/2020	20/08/2020

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

Parameter	Units	RL	L1	Result	Result
<b>VOCs (continued)</b>					
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

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

## 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

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### 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](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

Received By: Justin Pe  
 Received Date: 08/20/20 (mm/dd/yy)  
 Received Time: 17:45 (hr:min)

Received By (signature): \_\_\_\_\_  
 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 #: CA14587- AUG 20

### REPORT INFORMATION

Company: DS Gasworks  
 Contact: Kristin Olsen  
 Address: 6221 Vang Hwy F  
Vang, ON

Company:  (same as Report Information)  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 1500 Bantrel  
 Turnaround Time (TAT) Required: \_\_\_\_\_  
 TAT's are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 6pm or on weekends: TAT begins next business day.

Phone: \_\_\_\_\_  
 Fax: Kristin.Olsen@dsworks.com  
 Email: -con

Phone: \_\_\_\_\_  
 Email: accounting@dsworks.com

Regular TAT (5-7 days)  
 RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 \*NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

### REGULATIONS

O.Reg 153/04  O.Reg 406/19  
 Rest/Park  Soil Texture:  
 Table 2  In/Com  Coarse  
 Table 3  Agri/Other  Medium/Fine  
 Table  MISA  
 Soil Volume  <350m3  >350m3

Other Regulations: \_\_\_\_\_  
 Sewer By-Law:  Sanitary  Storm  
 PWOO  MMER  
 OCME  Other: \_\_\_\_\_  
 MISA  
 ODWS Not Reportable \*See note

RECORD OF SITE CONDITION (RSC)  YES  NO

### SAMPLE IDENTIFICATION

1	2	3	4	5	6	7	8	9	10	11	12
SB1-S1	SB2-S1	SB3-S1	SB4-S1	TR1-S1	D2-S3	D7-S3	D9-S3	D3-S3	D4-S3	D6-S3	D1-S1
8/20/20 P.M.											
5	2	5	2	2	1	1	1	1	1	1	1
Soil											
Field Filtered (Y/N)											
Metals & Inorganics <small>incl CrVI, CN, Hg, pH, (B)(HWS), EC, SAR, Soil</small> <small>(Cl, Na-water)</small>											
Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>											
ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni</small>											
PAHs only											
SVOCs <small>all incl PAHs, ABNs, CPs</small>											
PCBs <input type="checkbox"/> Total <input type="checkbox"/> Aroclor											
F1-F4 + BTEX											
F1-F4 only <small>no BTEX</small>											
VOCs <small>all incl BTEX</small>											
BTEX only											
Pesticides <small>Organochlorine or specify other</small>											
Appendix 2: 406/19 Leachate Screening Levels Table:											
Sewer Use: Specify pkg:											
Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>											
TCLP Specify TCLP tests <input type="checkbox"/> M&I <input type="checkbox"/> VOC <input type="checkbox"/> PCB <input type="checkbox"/> B(a)p <input type="checkbox"/> ABN <input type="checkbox"/> D(g)nl											

### COMMENTS:

Observations/Comments/Special Instructions

Sampled By (NAME): Andou Dock Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)  
 Relinquished by (NAME): Andou Dock Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)

Revision # 1.4  
 Date of Issue: 22 May, 2020  
 Note: Submission of samples to SGS is acknowledgment that you have been provided direction on sampling, 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 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](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.



Environment, Health & Safety - Lakeland: 185 Concession St., Lakeland, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment  
 - London: 657 Consortium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-848-8080 Fax: 519-672-0361

### Request for Laboratory Services and CHAIN OF CUSTODY

No: 014094  
 Page 2 of 4

Received By: Shirley P.  
 Received Date: 08/20/2010 (mm/dd/yy)  
 Received Time: 11:45 (hr : min)

Received By (signature): \_\_\_\_\_  
 Custody Seal Present: Yes  No   
 Custody Seal Intact: Yes  No   
 Cooling Agent Present: Yes  No  Type: ice  
 Temperature Upon Receipt (°C): 10.2  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 1300 Riverview Rd  
 LAB LIMS #: \_\_\_\_\_

Company: IDS  
 Contact: Kristin Olsen  
 Address: 6221 Hurvy  
Vaughan, ON  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 Regular TAT (5-7days)   
 RUSH TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 Specify Due Date: \_\_\_\_\_  
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

Regulation 153/04:  
 Res/PAK Soil Texture:  
 Table 2  In/Com  Coarse  
 Table 3  Agr/Other  Medium  
 Table \_\_\_\_\_  Fine

Other Regulations:  
 Reg 347/558 (3 Day min TAT)  
 PW/OO  MMER  
 C/OME  Other: \_\_\_\_\_  
 Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

RECORD OF SITE CONDITION (RSC)  YES  NO

ANALYSIS REQUESTED  
 M & I:  Field Filtered (Y/N)  
 Metals & Inorganics (incl 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, Se, Ag, Tl, U, V, Zn)  
 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)  
 Other (please specify): \_\_\_\_\_  
 Sewer Use: Specify pkg: \_\_\_\_\_  
 Water Characterization Pkg: General  Extended   
 TCLP: Specify  TCLP tests  MSL  VOC  PCB  BioloP  ABN  Ignit.

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED										TCLP	COMMENTS:	
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	Water Characterization Pkg	TCLP				
1	D5-S1	8/20/2010	PM	1	Soil	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	D8-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	D10-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	D18-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<del>D10-S1</del>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	D12-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	D13-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	D14-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	D16-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10	D11-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11	D15-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12	D17-S1					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Sampled By (NAME): Adrian Dack Signature: \_\_\_\_\_ Date: 08/20/2010 (mm/dd/yy)  
 Requisitioned by (NAME): Adrian Dack Signature: \_\_\_\_\_ Date: 08/20/2010 (mm/dd/yy)  
 Note: Submission of samples to SGS is acknowledgement that you have been provided direction on sample collection, preparation 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.htm](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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 - London: 657 Concorium Court, London, ON, N6E 2S8 Phone: 519-672-4500 Toll Free: 877-948-8060 Fax: 519-672-0361

### Request for Laboratory Services and CHAIN OF CUSTODY

NO: 014096  
 Page 4 of 4

Received By: Scott R  
 Received Date: 08/20/20 (mm/dd/yy)  
 Received Time: 11:45 (hr:min)

Received By (signature): \_\_\_\_\_  
 Cooling Agent Present:  Yes  No  
 Custody Seal Present:  Yes  No  
 Custody Seal Intact:  Yes  No  
 Temperature Upon Receipt (°C): 16.92, 18

LAB LIMS #: \_\_\_\_\_

REPORT INFORMATION

Company: DS  
 Contact: Kristin Olsen  
 Address: 6221 Hwy 7, Unit B  
Vaughan, ON

INVOICE INFORMATION

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: 1500 Stone Rd

REGULATIONS

Regulation 153/04:  
 Rest/Park  
 Table 1  
 Table 2  
 Table 3

Soil Texture:  
 Coarse  
 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

Company: \_\_\_\_\_  
 Contact: \_\_\_\_\_  
 Address: \_\_\_\_\_

Phone: \_\_\_\_\_  
 Fax: \_\_\_\_\_  
 Email: Kristin.Olsen@dsconsultants.ca

REGULATIONS

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

REGULATIONS

Regulation 153/04:  
 Rest/Park  
 Table 1  
 Table 2  
 Table 3

Soil Texture:  
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 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED													
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP						
1 D30-S1	8/20/20	P.M	1	Soil	Field Filtered (Y/N)	Metals & Inorganics <small>Incl Cr,VI, CN,Hg pH,(B(HWS),EC,SAR--soil) (Cl, Na-water)</small>	Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, Cr,VI</small>	ICP Metals only <small>Sb,As,Ba,Be,B,Cd,Cr,Co,Cu,Pb,Mo,Ni, Se,Ag,Ti,U,V,Zn</small>	PAHs only	SVOCs <small>all incl PAHs, ABNs, CPs</small>	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only <small>no BTEX</small>	VOCs <small>all incl BTEX</small>	BTEX only	Pesticides <small>Organochlorine or specify other</small>	Other (please specify)	TCLP <small>Specify tests</small>
2 SD up 7																		
3 SD up 8																		
4 SD up 9																		
5 SD up 10																		
6 SD up 11																		
7																		
8																		
9																		
10																		
11																		
12																		

REGULATIONS

Regulation 153/04:  
 Rest/Park  
 Table 1  
 Table 2  
 Table 3

Soil Texture:  
 Coarse  
 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

REGULATIONS

Regulation 153/04:  
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Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

REGULATIONS

Regulation 153/04:  
 Rest/Park  
 Table 1  
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Soil Texture:  
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 Medium  
 Fine

Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

REGULATIONS

Regulation 153/04:  
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Other Regulations:  
 Reg 347/558 (3 Day rain TAT)  
 PW/OO  
 MMEH  
 CCOME  
 Other: \_\_\_\_\_

Sewer By-Law:  
 Sanitary  
 Storm  
 MISA

RECORD OF SITE CONDITION (RSC)  YES  NO

Revision # 1.2  
 Date of Issue: 08 Sept, 2019  
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Sampled By (NAME): Arden Dobb Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)  
 Relinquished by (NAME): Arden Dobb Signature: \_\_\_\_\_ Date: 08/20/20 (mm/dd/yy)

Yellow & White Copy - SGS  
 Pink Copy - Client





## 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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Holding Time Summary.....	8
QC Summary.....	9-10
Legend.....	11
Annexes.....	12



# 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
<b>Sample Name</b>	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>Metals and Inorganics</b>							
Moisture Content	%	-			6.3	9.1	15.1

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

(SOIL)

Sample Number	8	9	10
<b>Sample Name</b>	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>Organochlorine Pests (OCs)</b>							
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
<b>Sample Name</b>	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	17/08/2020	17/08/2020	17/08/2020

Parameter	Units	RL	L1	L2	Result	Result	Result
<b>Organochlorine Pests (OCs) (continued)</b>							
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)**

<b>Sample Number</b>	8	9	10
<b>Sample Name</b>	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>Pesticides Surrogate</b>							
Surr Decachlorobiphenyl	Surr Rec %	-			93	92	90

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

<b>Sample Number</b>	8	9	10
<b>Sample Name</b>	MW20-3 SS2	BH20-4 SS2	MW20-5 SS2
<b>Sample Matrix</b>	soil	soil	soil
<b>Sample Date</b>	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
<b>VOC Surrogates</b>							
Surr TCMX	Surr Rec %	-			89	83	74



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
-------------	--------------------	---------------	---------	----------	---------------------	----------	--------------	----------

### 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](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 --



Environment, Health & Safety

Lakeland: 185 Concession St., Lakeland, 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: 519-672-4500 Toll Free: 877-946-8090 Fax: 519-672-0361

Request for Laboratory Services and CHAIN OF CUSTODY

Received By: Kim Sheard Received By (signature): [Signature] Laboratory Information Section - Lab use only

Received Date: 08/25/20 (mm/dd/yy) Cooling Agent Present: Yes  No  Type: ice

Received Time: 16:30 (hr : min) Custody Seal Present: Yes  No  Temperature Upon Receipt (°C): 22.5 LAB LIMS #: CA 14749 - A4620

**REPORT INFORMATION**

Company: DS Consultants  (same as Report Information)

Contact: Kirstin Olsen Company: DS Consultants

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

Phone: 437 928 2794 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8

Fax: 905 264 9393 Phone: 905 264 9393

Email: kirstin.olsen@dsconsultants.ca Email: accounting@dsconsultants.ca

**INVOICE INFORMATION**

Quotation #: 20-186-100 P.O.#: \_\_\_\_\_

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

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**

Regulation 153/04:

Table 1  Rest/Park Soil Texture:  Reg 347/558 (3 Day/min TAT)  Sanitary

Table 2  Ind/Com  Coarse  PWCO  MMER

Table 3  Agri/Other  Medium  CCME  Other

Table  Fine  MSA  Municipality:

RECORD OF SITE CONDITION (RSC)  YES  NO

Sewer By-Law:  Sanitary  Storm

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED										COMMENTS:				
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	TCLP	Sewer Use: Specify pkg:	Water Characterization Pkg					
1 MW20-3 SS2	August 17, 2020	11.05	1	Soil															
2 BH20-4 SS2	August 17, 2020	11.20	1	Soil															
3 MW20-5 SS2	August 17, 2020	11.50	1	Soil															
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

**Observations/Comments/Special Instructions**

Sampled By (NAME): Megsaw Jeleny Signature: [Signature] Date: 8/25/2020 (mm/dd/yy)

Relinquished By (NAME): Megsaw Jeleny Signature: [Signature] Date: 8/25/2020 (mm/dd/yy)

Yellow & White Copy - SGS

Pink Copy - Client

Revision # 1.3

Date of Issue: 13 Oct, 2019

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 the 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](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.





## FINAL REPORT

CA14762-AUG20 R1

20-186-100, Bronte Road

Prepared for

**DS Consultants**

## First Page

### CLIENT DETAILS

Client DS Consultants  
 Address 6221 Highway 7 Unit 16, Vaughan  
 Canada, L4H 0K8  
 Phone: 905-264-9393. Fax:905-264-2685  
 Contact Kirstin Olsen  
 Telephone 905-264-9393  
 Facsimile 905-264-2685  
 Email kirstin.olsen@dsconsultants.ca  
 Project 20-186-100, Bronte Road  
 Order Number  
 Samples soil (1)

### LABORATORY DETAILS

Project Specialist Jill Campbell, B.Sc.,GISAS  
 Laboratory SGS Canada Inc.  
 Address 185 Concession St., Lakefield ON, K0L 2H0  
 Telephone 2165  
 Facsimile 705-652-6365  
 Email jill.campbell@sgs.com  
 SGS Reference CA14762-AUG20  
 Received 08/26/2020  
 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
<b>Metals and Inorganics</b>				
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
<b>PHCs</b>				
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
<b>Moisture</b>								
<b>Method: CCME Tier 1   Internal ref.: ME-CA-[ENV]GC-LAK-AN-010</b>								
MW20-8 SS8	GCM0472-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/27/2020
<b>Petroleum Hydrocarbons (F1)</b>								
<b>Method: CCME Tier 1   Internal ref.: ME-CA-[ENV]GC-LAK-AN-010</b>								
MW20-8 SS8	GCM0478-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/27/2020
<b>Petroleum Hydrocarbons (F2-F4)</b>								
<b>Method: CCME Tier 1   Internal ref.: ME-CA-[ENV]GC-LAK-AN-010</b>								
MW20-8 SS8	GCM0484-AUG20	8		08/26/2020	08/27/2020	08/27/2020		08/28/2020

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.

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

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

**RL:** Reporting limit

**RPD:** Relative percent difference

**AC:** Acceptance criteria

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

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

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

**LEGEND**

---

**FOOTNOTES**

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

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

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

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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

Received By: Kim Shepard  
 Received Date: 08.17.20 (mm/dd/yy)  
 Received Time: 05:00 (hr.:min)

Received By (signature): [Signature]  
 Custody Seal Present:  Yes  No  
 Temperature Upon Receipt (°C): 17.7 Type: ice  
 Cooling Agent Present:  Yes  No  
 LAB LIMS #: CA-14406-Aug20

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

Company: (same as Report Information)  
 Contact: Paula Derveni  
 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8  
 Phone: 905 294 9393  
 Email: accounting@dsconsultants.ca

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 P.O. #: \_\_\_\_\_  
 Site Location/ID: Bronte Road

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

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

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)  
 PMCO  MMR  
 CCME  Other: \_\_\_\_\_  
 MISA

Sewer By-Law:  
 Sanitary  
 Storm  
 Municipality: \_\_\_\_\_

RECORD OF SITE CONDITION (RSC)  YES  NO

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED											TCLP	COMMENTS:					
					M & I	SVOC	PCB	PHC	VOC	Pest	Other (please specify)	Water Characterization Pkg	General	Extended	Speedy							
1 MW20-1 SS1	Aug 17, 2020	10:00	1	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2 MW20-1 SS3	Aug 13/17, 2020	3:45/10:15	4	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3 MW20-1 SS4	August 19, 2020	4:00	3	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HOLD FOR PHCS
4 MW20-1 SS6	Aug 13, 2020	4:10	3	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HOLD FOR PHCS
5 MW20-2 SS1	Aug 17, 2020	10:30	2	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6 MW20-2 SS3	Aug 13/17, 2020	4:30/10:45	4	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7 MW20-2 SS4	Aug 13, 2020	4:30	3	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	HOLD FOR PHCS
8 MW20-2 SS7	Aug 13, 2020	4:45	3	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9 MW20-3 SS1	Aug 17, 2020	11:00	2	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
10 BH20-4 SS1	Aug 17, 2020	11:15	2	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
11 MW20-5 SS1	Aug 17, 2020	11:30	2	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
12 MW20-5 SS3	Aug 17, 2020	3:00/11:45	3	Soil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Observed/Comments/Special Instructions

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

Revision # 1.3  
 Date of Issue: 13 Oct, 2019  
 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](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







Environment, Health & Safety - Lakeland, 185 Concession St., Lakeland, ON K0L 2H0 Phone: 705-652-2000 Fax: 705-652-6365 Web: www.sgs.com/environment

**Request for Laboratory Services and CHAIN OF CUSTODY**

Received By: Kim Shepard Received By (signature): [Signature] Laboratory Information Section - Lab use only  
 Received Date: 08.17.20 (mm/dd/yy) Cooling Agent Present: Yes  No  Type: ice  
 Received Time: 15:00 (hr : min) Custody Seal Present: Yes  No  Temperature Upon Receipt (°C): 7.7  
 Lab UMS #: CA-14406-Avg 20

**REPORT INFORMATION**  
 Company: DS Consultants  
 Contact: Kristin Olsen  
 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8  
 Phone: 437 928 2794  
 Fax: \_\_\_\_\_  
 Email: kristin.olsen@dsconsultants.ca

**INVOICE INFORMATION**  
 (same as Report Information)  
 Company: DS Consultants  
 Contact: Pavlaa Derveni  
 Address: 6221 Highway 7, Unit 16, Vaughan, ON, L4H 0K8  
 Phone: 905 284 9393  
 Email: accounting@dsconsultants.ca

Quotation #: \_\_\_\_\_  
 Project #: 20-186-100  
 Regular TAT (5-7 days)  
 Rush TAT (Additional Charges May Apply):  1 Day  2 Days  3 Days  4 Days  
 PLEASE CONFIRM RUSH FEASIBILITY WITH SGS REPRESENTATIVE PRIOR TO SUBMISSION  
 Specify Due Date: \_\_\_\_\_  
 NOTE: DRINKING (POTABLE) WATER SAMPLES FOR HUMAN CONSUMPTION MUST BE SUBMITTED WITH SGS DRINKING WATER CHAIN OF CUSTODY

P.O. #: \_\_\_\_\_  
 Site Location/ID: \_\_\_\_\_  
**TURNAROUND TIME (TAT) REQUIRED**  
 TATs are quoted in business days (exclude statutory holidays & weekends).  
 Samples received after 0pm or on weekends, TAT begins next business day.

**REGULATION 153/04:**  
 Table 1  Res/Perk  Soil Texture: \_\_\_\_\_  
 Table 2  Ind/Com  Coarse \_\_\_\_\_  
 Table 3  Agr/Other  Medium/ \_\_\_\_\_  
 Table \_\_\_\_\_  Fine \_\_\_\_\_

**Other Regulations:**  
 Reg 34/7558 (3 Day min TAT)  
 PMCO  MMER  
 CCME  Other: \_\_\_\_\_  
 MISA \_\_\_\_\_

**Sewer By-Law:**  
 Sanitary \_\_\_\_\_  
 Storm \_\_\_\_\_  
 Municipality: \_\_\_\_\_

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	# OF BOTTLES	MATRIX	ANALYSIS REQUESTED											COMMENTS:								
					Field Filtered (Y/N)	M & I Metals & Inorganics <small>(incl CrVI, CN, Hg, pH, (B)-HWS, EC, SAR-soil) (Cl, Na-water)</small>	Full Metals Suite <small>ICP metals plus B(HWS-soil only) Hg, CrVI</small>	ICP Metals only <small>Sb, As, Ba, Be, B, Cd, Cr, Co, Cu, Pb, Mo, Ni, Se, Ag, Tl, U, V, Zn</small>	PAHs only	SVOCs <small>all incl PAHs, ABNs, CPs</small>	PCBs Total <input type="checkbox"/> Aroclor <input type="checkbox"/>	F1-F4 + BTEX	F1-F4 only <small>no BTEX</small>	VOCs <small>all incl BTEX</small>	BTEX only		Pesticides <small>Organochlorine or specify other</small>	Other <small>(please specify)</small>	Sewer Use: <small>Specify pkg</small>	Water Characterization Pkg General <input type="checkbox"/> Extended <input type="checkbox"/>	TCLP <small>Specify</small>			
1 MW20-10 SS1	Aug 17, 2020	2:10	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"/>		
2 SDUP5	Aug 17, 2020	2:20	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"/>		
3 BH20-12 SS1	Aug 17, 2020	2:30	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"/>		
4 MW20-13 SS1	Aug 17, 2020	2:40	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"/>		
5 BH20-14 SS1	Aug 17, 2020	2:50	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"/>		
6 BH20-6 SS1	Aug 14, 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"/>		
7 BH20-12 SS5	Aug 14, 2020	5:10	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"/>		
8 BH20-13 SS9	Aug 14, 2020	5:20	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"/>		
9 SDUP5	Aug 17, 2020	2:55	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"/>		
10																								
11																								
12																								

**Observations/Comments/Special Instructions**

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

Revised: # 1.3  
 Date of Issue: 13 Oct 2019

Note: Submission of samples to SGS is acknowledgment that you have been provided a copy of the contract, or in an alternative format (e.g. shipping documents). (3) Results may be sent by email to an unfiltered number of addresses for no additional cost. Fax is available upon request. This document is issued by the Company under the General Conditions of Service accessible at [http://www.sgs.com/terms\\_and\\_conditions.htm](http://www.sgs.com/terms_and_conditions.htm). (Printed copies are available upon request). Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Yellow & White Copy - SGS  
 Pink Copy - Client



## FINAL REPORT

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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Annexes.....	9-11



# 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
<b>Metals and Inorganics</b>					
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
<b>PHCs</b>					
F2 (C10-C16)	µg/g	10	10	10	11



## EXCEEDANCE SUMMARY

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

## 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](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 --











Your Project #: 20-186-100  
 Site Location: 1326 BRONTE RD., OAKVILLE  
 Your C.O.C. #: n/a

**Attention: Rick Fioravanti**

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

**Report Date: 2023/05/16**  
 Report #: R7630711  
 Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C3D1205**

**Received: 2023/05/09, 13:43**

Sample Matrix: Water  
 # Samples Received: 3

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Methylnaphthalene Sum	2	N/A	2023/05/15	CAM SOP-00301	EPA 8270D m
Petroleum Hydro. CCME F1 & BTEX in Water	3	N/A	2023/05/12	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2023/05/11	2023/05/12	CAM SOP-00316	CCME PHC-CWS m
PAH Compounds in Water by GC/MS (SIM)	2	2023/05/11	2023/05/12	CAM SOP-00318	EPA 8270E

**Remarks:**

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

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

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

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

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

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

(1) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.



Your Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Your C.O.C. #: n/a

**Attention: Rick Fioravanti**

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

**Report Date: 2023/05/16**  
Report #: R7630711  
Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BUREAU VERITAS JOB #: C3D1205**

**Received: 2023/05/09, 13:43**

Encryption Key



**AUTHORIZED REPORT  
RAPPORT AUTORISÉ**

Bureau Veritas

16 May 2023 10:40:07

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

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



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

### PETROLEUM HYDROCARBONS (CCME)

<b>Bureau Veritas ID</b>			VTK940		
<b>Sampling Date</b>			2023/05/09		
<b>COC Number</b>			n/a		
	<b>UNITS</b>	<b>Criteria</b>	<b>TRIP BLANK</b>	<b>RDL</b>	<b>QC Batch</b>
<b>BTEX &amp; F1 Hydrocarbons</b>					
Benzene	ug/L	5.0	<0.20	0.20	8660781
Toluene	ug/L	24	<0.20	0.20	8660781
Ethylbenzene	ug/L	2.4	<0.20	0.20	8660781
o-Xylene	ug/L	-	<0.20	0.20	8660781
p+m-Xylene	ug/L	-	<0.40	0.40	8660781
Total Xylenes	ug/L	300	<0.40	0.40	8660781
F1 (C6-C10)	ug/L	750	<25	25	8660781
F1 (C6-C10) - BTEX	ug/L	750	<25	25	8660781
<b>Surrogate Recovery (%)</b>					
1,4-Difluorobenzene	%	-	107		8660781
4-Bromofluorobenzene	%	-	87		8660781
D10-o-Xylene	%	-	98		8660781
D4-1,2-Dichloroethane	%	-	108		8660781
No Fill	No Exceedance				
Grey	Exceeds 1 criteria policy/level				
Black	Exceeds both criteria/levels				
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)					
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition					
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil					



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

**O.REG 153 PAHS (WATER)**

Bureau Veritas ID			VTK937	VTK939		
Sampling Date			2023/05/09	2023/05/09		
COC Number			n/a	n/a		
	UNITS	Criteria	BH20-3	DUP1	RDL	QC Batch
<b>Calculated Parameters</b>						
Methylnaphthalene, 2-(1-)	ug/L	3.2	<0.071	<0.071	0.071	8653529
<b>Polyaromatic Hydrocarbons</b>						
Acenaphthene	ug/L	4.1	<0.050	<0.050	0.050	8659316
Acenaphthylene	ug/L	1	<0.050	<0.050	0.050	8659316
Anthracene	ug/L	2.4	<0.050	<0.050	0.050	8659316
Benzo(a)anthracene	ug/L	1.0	<0.050	<0.050	0.050	8659316
Benzo(a)pyrene	ug/L	0.01	<0.0090	<0.0090	0.0090	8659316
Benzo(b/j)fluoranthene	ug/L	0.1	<0.050	<0.050	0.050	8659316
Benzo(g,h,i)perylene	ug/L	0.2	<0.050	<0.050	0.050	8659316
Benzo(k)fluoranthene	ug/L	0.1	<0.050	<0.050	0.050	8659316
Chrysene	ug/L	0.1	<0.050	<0.050	0.050	8659316
Dibenzo(a,h)anthracene	ug/L	0.2	<0.050	<0.050	0.050	8659316
Fluoranthene	ug/L	0.41	<0.050	<0.050	0.050	8659316
Fluorene	ug/L	120	<0.050	<0.050	0.050	8659316
Indeno(1,2,3-cd)pyrene	ug/L	0.2	<0.050	<0.050	0.050	8659316
1-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	0.050	8659316
2-Methylnaphthalene	ug/L	3.2	<0.050	<0.050	0.050	8659316
Naphthalene	ug/L	11	<0.050	<0.050	0.050	8659316
Phenanthrene	ug/L	1	<0.030	<0.030	0.030	8659316
Pyrene	ug/L	4.1	<0.050	<0.050	0.050	8659316
<b>Surrogate Recovery (%)</b>						
D10-Anthracene	%	-	101	97		8659316
D14-Terphenyl (FS)	%	-	76	73		8659316
D8-Acenaphthylene	%	-	91	88		8659316
No Fill	No Exceedance					
Grey	Exceeds 1 criteria policy/level					
Black	Exceeds both criteria/levels					
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)						
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition						
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil						



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

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

Bureau Veritas ID			VTK937			VTK937			VTK939		
Sampling Date			2023/05/09			2023/05/09			2023/05/09		
COC Number			n/a			n/a			n/a		
	UNITS	Criteria	BH20-3	RDL	QC Batch	BH20-3 Lab-Dup	RDL	QC Batch	DUP1	RDL	QC Batch
<b>BTEX &amp; F1 Hydrocarbons</b>											
Benzene	ug/L	5.0	<0.20	0.20	8660781	<0.20	0.20	8660781	<0.20	0.20	8660781
Toluene	ug/L	24	<0.20	0.20	8660781	<0.20	0.20	8660781	<0.20	0.20	8660781
Ethylbenzene	ug/L	2.4	<0.20	0.20	8660781	<0.20	0.20	8660781	<0.20	0.20	8660781
o-Xylene	ug/L	-	<0.20	0.20	8660781	<0.20	0.20	8660781	<0.20	0.20	8660781
p+m-Xylene	ug/L	-	<0.40	0.40	8660781	<0.40	0.40	8660781	<0.40	0.40	8660781
Total Xylenes	ug/L	300	<0.40	0.40	8660781	<0.40	0.40	8660781	<0.40	0.40	8660781
F1 (C6-C10)	ug/L	750	<25	25	8660781	<25	25	8660781	<25	25	8660781
F1 (C6-C10) - BTEX	ug/L	750	<25	25	8660781	<25	25	8660781	<25	25	8660781
<b>F2-F4 Hydrocarbons</b>											
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	100	8659318				<100	100	8659318
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	200	8659318				<200	200	8659318
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	200	8659318				<200	200	8659318
Reached Baseline at C50	ug/L	-	Yes		8659318				Yes		8659318
<b>Surrogate Recovery (%)</b>											
1,4-Difluorobenzene	%	-	105		8660781	109		8660781	108		8660781
4-Bromofluorobenzene	%	-	84		8660781	81		8660781	79		8660781
D10-o-Xylene	%	-	100		8660781	108		8660781	100		8660781
D4-1,2-Dichloroethane	%	-	105		8660781	108		8660781	108		8660781
o-Terphenyl	%	-	99		8659318				100		8659318
No Fill	No Exceedance										
Grey	Exceeds 1 criteria policy/level										
Black	Exceeds both criteria/levels										
RDL = Reportable Detection Limit											
QC Batch = Quality Control Batch											
Lab-Dup = Laboratory Initiated Duplicate											
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)											
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition											
Potable Ground Water- All Types of Property Uses - Coarse Textured Soil											





BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

### TEST SUMMARY

**Bureau Veritas ID:** VTK937  
**Sample ID:** BH20-3  
**Matrix:** Water

**Collected:** 2023/05/09  
**Shipped:**  
**Received:** 2023/05/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8653529	N/A	2023/05/15	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8660781	N/A	2023/05/12	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8659318	2023/05/11	2023/05/12	Emir Danisman
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8659316	2023/05/11	2023/05/12	Jonghan Yoon

**Bureau Veritas ID:** VTK937 Dup  
**Sample ID:** BH20-3  
**Matrix:** Water

**Collected:** 2023/05/09  
**Shipped:**  
**Received:** 2023/05/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8660781	N/A	2023/05/12	Ravinder Gaidhu

**Bureau Veritas ID:** VTK939  
**Sample ID:** DUP1  
**Matrix:** Water

**Collected:** 2023/05/09  
**Shipped:**  
**Received:** 2023/05/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	8653529	N/A	2023/05/15	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8660781	N/A	2023/05/12	Ravinder Gaidhu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	8659318	2023/05/11	2023/05/12	Emir Danisman
PAH Compounds in Water by GC/MS (SIM)	GC/MS	8659316	2023/05/11	2023/05/12	Jonghan Yoon

**Bureau Veritas ID:** VTK940  
**Sample ID:** TRIP BLANK  
**Matrix:** Water

**Collected:** 2023/05/09  
**Shipped:**  
**Received:** 2023/05/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	8660781	N/A	2023/05/12	Ravinder Gaidhu



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

### GENERAL COMMENTS

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

Package 1	4.3°C
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**Results relate only to the items tested.**



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205

Report Date: 2023/05/16

### QUALITY ASSURANCE REPORT

DS Consultants Limited

Client Project #: 20-186-100

Site Location: 1326 BRONTE RD., OAKVILLE

Sampler Initials: MG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8659316	D10-Anthracene	2023/05/12	96	50 - 130	86	50 - 130	100	%		
8659316	D14-Terphenyl (FS)	2023/05/12	80	50 - 130	85	50 - 130	92	%		
8659316	D8-Acenaphthylene	2023/05/12	87	50 - 130	88	50 - 130	92	%		
8659318	o-Terphenyl	2023/05/12	102	60 - 130	101	60 - 130	102	%		
8660781	1,4-Difluorobenzene	2023/05/12	99	70 - 130	103	70 - 130	108	%		
8660781	4-Bromofluorobenzene	2023/05/12	103	70 - 130	103	70 - 130	85	%		
8660781	D10-o-Xylene	2023/05/12	101	70 - 130	104	70 - 130	104	%		
8660781	D4-1,2-Dichloroethane	2023/05/12	111	70 - 130	104	70 - 130	109	%		
8659316	1-Methylnaphthalene	2023/05/12	96	50 - 130	98	50 - 130	<0.050	ug/L	NC	30
8659316	2-Methylnaphthalene	2023/05/12	87	50 - 130	88	50 - 130	<0.050	ug/L	NC	30
8659316	Acenaphthene	2023/05/12	102	50 - 130	102	50 - 130	<0.050	ug/L	NC	30
8659316	Acenaphthylene	2023/05/12	98	50 - 130	99	50 - 130	<0.050	ug/L	NC	30
8659316	Anthracene	2023/05/12	102	50 - 130	95	50 - 130	<0.050	ug/L	NC	30
8659316	Benzo(a)anthracene	2023/05/12	99	50 - 130	102	50 - 130	<0.050	ug/L	NC	30
8659316	Benzo(a)pyrene	2023/05/12	92	50 - 130	106	50 - 130	<0.0090	ug/L	NC	30
8659316	Benzo(b/j)fluoranthene	2023/05/12	98	50 - 130	108	50 - 130	<0.050	ug/L	NC	30
8659316	Benzo(g,h,i)perylene	2023/05/12	101	50 - 130	119	50 - 130	<0.050	ug/L	NC	30
8659316	Benzo(k)fluoranthene	2023/05/12	93	50 - 130	103	50 - 130	<0.050	ug/L	NC	30
8659316	Chrysene	2023/05/12	102	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8659316	Dibenzo(a,h)anthracene	2023/05/12	87	50 - 130	104	50 - 130	<0.050	ug/L	NC	30
8659316	Fluoranthene	2023/05/12	100	50 - 130	106	50 - 130	<0.050	ug/L	NC	30
8659316	Fluorene	2023/05/12	99	50 - 130	100	50 - 130	<0.050	ug/L	NC	30
8659316	Indeno(1,2,3-cd)pyrene	2023/05/12	97	50 - 130	116	50 - 130	<0.050	ug/L	NC	30
8659316	Naphthalene	2023/05/12	99	50 - 130	99	50 - 130	<0.050	ug/L	3.0	30
8659316	Phenanthrene	2023/05/12	104	50 - 130	104	50 - 130	<0.030	ug/L	NC	30
8659316	Pyrene	2023/05/12	98	50 - 130	103	50 - 130	<0.050	ug/L	2.6	30
8659318	F2 (C10-C16 Hydrocarbons)	2023/05/12	104	60 - 130	101	60 - 130	<100	ug/L	NC	30
8659318	F3 (C16-C34 Hydrocarbons)	2023/05/12	105	60 - 130	103	60 - 130	<200	ug/L	NC	30
8659318	F4 (C34-C50 Hydrocarbons)	2023/05/12	103	60 - 130	98	60 - 130	<200	ug/L	NC	30
8660781	Benzene	2023/05/12	115	50 - 140	107	50 - 140	<0.20	ug/L	NC	30
8660781	Ethylbenzene	2023/05/12	125	50 - 140	122	50 - 140	<0.20	ug/L	NC	30



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205

Report Date: 2023/05/16

### QUALITY ASSURANCE REPORT(CONT'D)

DS Consultants Limited

Client Project #: 20-186-100

Site Location: 1326 BRONTE RD., OAKVILLE

Sampler Initials: MG

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
8660781	F1 (C6-C10) - BTEX	2023/05/12					<25	ug/L	NC	30
8660781	F1 (C6-C10)	2023/05/12	125	60 - 140	115	60 - 140	<25	ug/L	NC	30
8660781	o-Xylene	2023/05/12	121	50 - 140	114	50 - 140	<0.20	ug/L	NC	30
8660781	p+m-Xylene	2023/05/12	120	50 - 140	114	50 - 140	<0.40	ug/L	NC	30
8660781	Toluene	2023/05/12	113	50 - 140	106	50 - 140	<0.20	ug/L	NC	30
8660781	Total Xylenes	2023/05/12					<0.40	ug/L	NC	30

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

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

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

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

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

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



BUREAU  
VERITAS

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

### VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Scientific Specialist

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Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by {0}, {1} responsible for {2} {3} laboratory operations.



**BUREAU  
VERITAS**

Bureau Veritas Job #: C3D1205  
Report Date: 2023/05/16

DS Consultants Limited  
Client Project #: 20-186-100  
Site Location: 1326 BRONTE RD., OAKVILLE  
Sampler Initials: MG

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

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





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# Appendix D

### Laboratory Use Only

Work Order #: 204621910  
Cooler Quantity: 16 COOLER  
Arrival Temperatures: 8.2 | 8.4 | 8.6  
8.3 | 8 | 8.4  
Custody Seal Intact:  Yes  No  N/A  
Notes: NO ICE

## Chain of Custody Record

If this is a Drinking Water sample, please use Drinking Water Chain of Custody Form (potable water consumed by humans)

### Report Information:

Company: SOIL MAT  
Contact: Lianne Peter.  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
Reports to be sent to:  
1. Email: Lianne Peter  
2. Email: \_\_\_\_\_

### Regulatory Requirements: No Regulatory Requirement

(Please check all applicable boxes)

Regulation 153/04  Sewer Use  Regulation 558  
 Ind/Com  Sanitary  CCME  
 Res/Park  Storm  Prov. Water Quality Objectives (PWQO)  
 Agriculture  Other  
Soil Texture (Check One) Region: \_\_\_\_\_ Indicate One  
 Coarse  MISA  
 Fine \_\_\_\_\_ Indicate One

### Turnaround Time (TAT) Required:

Regular TAT  5 to 7 Business Days  
Rush TAT (Rush Surcharges Apply)  
 3 Business Days  2 Business Days  Next Business Day  
OR Date Required (Rush Surcharges May Apply): \_\_\_\_\_

### Project Information:

Project: 18816816  
Site Location: 1300 Bronte Rd., Oakville  
Sampled By: LC  
AGAT Quote #: \_\_\_\_\_ PO: \_\_\_\_\_

### Is this submission for a Record of Site Condition?

Yes  No

### Report Guideline on Certificate of Analysis

Yes  No

Please provide prior notification for rush TAT  
\*TAT is exclusive of weekends and statutory holidays

For 'Same Day' analysis, please contact your AGAT CPM

### Invoice Information:

Bill To Same: Yes  No

Company: \_\_\_\_\_  
Contact: \_\_\_\_\_  
Address: \_\_\_\_\_  
Email: \_\_\_\_\_

### Sample Matrix Legend

B Biota  
GW Ground Water  
O Oil  
P Paint  
S Soil  
SD Sediment  
SW Surface Water

Field Filtered - Metals, Hg, CrVI

O Reg 153

Metals and Inorganics

All Metals  153 Metals (excl. Hydrides)  
 Hydride Metals  153 Metals (incl. Hydrides)  
ORPs:  B-HWS  Cl  CN  
 Cr<sup>6+</sup>  EC  FOC  Hg  
 pH  SAR

Full Metals Scan

Regulation/Custom Metals

Nutrients:  TP  NH<sub>3</sub>  TKN  
 NO<sub>3</sub>  NO<sub>2</sub>  NO<sub>2</sub>+NO<sub>3</sub>

Volatiles:  VOC  BTEX  THM

PHCs F1 - F4

ABNs

PAHS

PCBs:  Total  Aroclors

Organochlorine Pesticides

TCLP:  M21  VOCs  ABNs  B(a)P  PCBs

Sewer Use

LEAD + ARSENIC

Potentially Hazardous or High Concentration (Y/N)

Sample Identification	Date Sampled	Time Sampled	# of Containers	Sample Matrix	Comments/ Special Instructions	Y / N	Metals and Inorganics	Field Filtered - Metals, Hg, CrVI	O Reg 153	Volatiles	PHCs F1 - F4	ABNs	PAHS	PCBs	Organochlorine Pesticides	TCLP	Sewer Use	Potentially Hazardous or High Concentration (Y/N)
S11	20/07/07	am		S														
S12																		
S13																		
S14																		
S15																		
S16																		
S17																		
S18																		
S19																		
S20																		

Samples Relinquished By (Print Name and Sign): <u>Lianne Crawford</u>	Date: <u>20/07/07</u>	Time: <u>1:15</u>	Samples Received By (Print Name and Sign): <u>Daniella Janc</u>	Date: <u>July 7/20</u>	Time: <u>1:30pm</u>
Samples Relinquished By (Print Name and Sign): <u>Daniella Janc</u>	Date: <u>July 7/20</u>	Time: <u>3:00pm</u>	Samples Received By (Print Name and Sign): <u>John Chyryha</u>	Date: <u>Jul 7</u>	Time: <u>2:50</u>
Samples Relinquished By (Print Name and Sign): <u>[Signature]</u>	Date: <u>July 7/20</u>	Time: <u>[Time]</u>	Samples Received By (Print Name and Sign): <u>John Chyryha</u>	Date: <u>Jul 7</u>	Time: <u>Hijs</u>