Phase Two Environmental Site Assessment
358 Reynolds Street
Oakville, Ontario

Final Report

October 25, 2021

Prepared for:

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Executive Summary

Stantec Consulting Ltd. (Stantec) conducted a Phase Two Environmental Site Assessment (ESA) of the property located at 358 Reynolds Street in Oakville, Ontario, hereinafter referred to as the "Phase Two Property" or the "Site". The Phase Two ESA was conducted for Transmetro Limited (Transmetro) in support of the filing of a Record of Site Condition (RSC) for the Phase Two Property with the Ontario Ministry of the Environment, Conservation and Parks (MECP) in accordance with Ontario Regulation 153/04 (O.Reg.153/04). Stantec understands that the filing of the RSC is required by the MECP based on a change in land use to a more sensitive use, given that the most recent land use was commercial, and the future land use is anticipated to be residential. Therefore, the purpose of the Phase Two ESA is to evaluate the environmental condition of the Phase Two Property in support of the filing of an RSC for future residential development.

The Phase Two ESA was designed using the findings of a Phase One ESA (Stantec, 2021), which identified potentially contaminating activities (PCAs) related to current and historical activities both on- and off-site that contributed to the following Areas of Potential Environmental Concern (APECs) on the Phase Two Property:

- APEC 1 (immediately southwest of the site building): PCA 28 – Gasoline and Associated Products Storage in Fixed Tanks
- APEC 2 (immediately southwest of the site building): PCA 30 – Importation of Fill Material of Unknown Quality
- APEC 3 (northern boundary of the Phase Two Property): PCA 28 – Gasoline and Associated Products Storage in Fixed Tanks, PCA Associated with Hazardous Waste Generation
- APEC 4 (parking area of the Phase Two Property)

The Phase Two Property generally consisted of a former Medical Arts building and an associated asphalt parking lot. It is understood that the Client is planning to redevelop the Phase Two Property to include residential land use with municipal services.

The land use surrounding the Phase Two Property comprises residential properties to the northwest, west and south (across Reynolds Street and/or MacDonald Road) and community properties to the north, northeast and east (across Reynolds Street, and adjacent to the Site to the east).

The Phase Two ESA included the advancement of eight boreholes (all of which were instrumented with monitoring wells), five test pits and a soil and ground water sampling program. The initial fieldwork for the Phase Two ESA was completed between January 22, 2020 and April 30, 2020. Additional soil sampling was completing using test pits on October 21, 2020 and April 14, 2021. Hand sampling of uncontaminated soil from the Site that was reused as excavation backfill was completed on October 20, 2021. Soil samples were collected for analysis of one or more of the following: petroleum hydrocarbons (PHCs), benzene, toluene, ethyl benzene and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), volatile organic compounds (VOCs), and/or metals and inorganics. Ground water samples were collected for analysis of one or more of the following: PHCs, PAHs, BTEX, metals and inorganics. Four monitoring wells were installed outside the site building of the Phase Two Property (MW20-1 to MW20-4) and four

monitoring wells were installed in the interior (basement) of the site building at the Phase Two Property (MW20-5 to MW20-8).

Stantec offers the following conclusions with respect to the results of the Phase Two ESA:

- The MECP (2011) Table 2 SCS for residential/parkland/institutional land use in a potable ground water condition with coarse textured soils were considered the site condition standards (SCS) applicable at the Phase Two Property.
- In general, overburden at the Phase Two Property, with increasing depth, generally consisted of sand, silt and gravel fill (up to 3.7 m BGS, overlying sand to silty and sandy gravel, which overlies a silt till to the maximum depth investigated (4.1 m BGS).
- Bedrock geology in the study area was mapped as shale, limestone, dolostone, and/or siltstone of the Queenston Formation. Bedrock was not encountered during investigations by Stantec to the maximum investigated depth of approximately 4.1 m BGS, however competent shale bedrock was encountered at approximately 4.0 m BGS during remedial excavation work immediately south of the building. Previous investigations completed at the Phase Two Property identified bedrock as weathered shale at 5.2 m BGS. According to the Water Well Information System database entries reviewed in the ERIS report during the Phase One ESA, shale was encountered at depths ranging from 4.5 m to 19.0 m BGS within the Phase One Study Area.
- Ground water was encountered in the monitoring wells between 2.48 m BGS (at MW20-4 on January 23, 2020) to 2.76 m BGS (at BH-2 on January 30, 2020) at the Phase Two Property. Ground water elevations in the monitoring wells ranged from approximately 97.26 m RTD (at MW20-2 on January 23, 2020) to 97.61 m RTD (at BH-2 on January 30, 2020). The depth to the water table at MW20-5 in January 2020 was considered anomalously high and was not considered in the determination of ground water flow direction and hydraulic gradient calculation associated with January 2020.
- The interpreted ground water flow direction in the unconfined aquifer at the Phase Two Property is generally toward the east with a southward/southeastward component in the central portion of the Site.
- The horizontal hydraulic gradient across the Phase Two Property was estimated to be approximately 0.01 m/m. The vertical hydraulic gradient was not calculated, as only shallow monitoring wells were installed as part of the Phase Two ESA.
- The results of soil sampling indicated concentrations of mercury, PHC F2 and PHC F3, electrical conductivity (EC), and sodium adsorption ratio (SAR) in soil that exceeded the Table 2 SCS. EC and SAR exceedances in soil are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow or ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act. Therefore, only mercury, PHC F2 and PHC F3 were identified as COCs in soil at the Phase Two Property.
- No COCs were identified for ground water. However, the concentration of mercury in ground water recovered at MW20-5 during the January 2020 sampling event was considered anomalous due to insufficient development and ground water recovery of this well. Mercury concentrations in this well were less than Table 2 SCS and the laboratory detection limits for both of the subsequent sampling events in April of 2020. Additionally, soil was removed during remediation in the vicinity of MW20-5, as described in **Appendix B**.
- The results of the QA/QC procedures indicated that the Data Quality Objectives (DQOs) for the soil and ground water data were met, and that the data were of acceptable quality and adequate for their intended use.

Based on the results of the Phase Two ESA, COCs of mercury, PHC F2 and PHC F3 in soil were identified as listed above. The COCs generally appeared to be delineated vertically and horizontally within

the overburden material at the Phase Two Property. As indicated above, ground water COCs were not identified at the Phase Two Property during this investigation.

The statements made in this Executive Summary are subject to the limitations included in **Section 7.2** and are to be read in conjunction with the remainder of this report.

1.0 INTRODUCTION

Stantec conducted a Phase Two ESA of the property located at 358 Reynolds Street in Oakville, Ontario, hereinafter referred to as the "Phase Two Property" or the "Site". The Phase Two ESA was conducted for Transmetro in support of the filing of an RSC for the Phase Two Property with the MECP in accordance with O.Reg.153/04. Stantec understands that the filing of the RSC is required by the MECP based on a change in land use to a more sensitive use, given that the most recent land use was commercial, and the future land use is anticipated to be residential. Therefore, the purpose of the Phase Two ESA is to evaluate the environmental condition of the Phase Two Property in support of the filing of an RSC for future residential development.

The Phase Two ESA was designed using the findings of a Phase One ESA (Stantec, 2021), which identified potentially contaminating activities (PCAs) related to current and historical activities that contributed to Areas of Potential Environmental Concern (APECs) on the Phase Two Property.

The completed Phase Two ESA was consistent with the requirements of O.Reg.153/04, unless otherwise indicated. The report headings, format, and content follow the requirements of O.Reg.153/04. Additional report sections were included to improve report clarity and completeness.

1.1 SITE DESCRIPTION

The Phase Two Property comprises an approximately 2,826 square metre (sq.m.) rectangular parcel of commercial land, described by provincial Property Identification Number (PIN) 248080010. The legal description associated with this PIN is provided in **Table 1** below.

Table 1: Legal Description of the Phase Two Property

PIN	Legal Description	Address
248080010	PT PPK 0, PL 1, as in 613469 Town of Oakville	358 Reynolds Street, Oakville, Ontario

The land use surrounding the Phase Two Property comprises residential properties to the northwest, west and south (across Reynolds Street and/or MacDonald Road) and community properties to the north, northeast and east (across Reynolds Street, and adjacent to the Site to the east).

Figure No.1 presents the site location. **Figure No.2** presents a site plan showing the site features including the current buildings, APECs, PCAs as well as the adjacent properties.

1.2 PROPERTY OWNERSHIP

The Phase Two Property is owned by Transmetro Limited. Contact details for Mr. Tom Flood are provided in the table below:

Table 2: Contact Information

Name	Position	Company	Address
Tom Flood	President	Transmetro Limited	1240 Bay Street, Suite 306, Toronto, Ontario

1.3 CURRENT AND PROPOSED FUTURE USES

The Phase Two Property consisted of a former Medical Arts building and an associated asphalt parking lot. It is understood that the Client is planning to redevelop the Phase Two Property to include residential land use with municipal services.

1.4 APPLICABLE SITE CONDITION STANDARDS

To evaluate the soil and ground water quality at the Phase Two Property, data were compared with the site condition standards (SCS) established in the MECP document *Soil, Ground water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (MOE, 2011a) (the O.Reg.153/04 SCS). Generic standards listed in Table 2 of the O.Reg.153/04 SCS for residential/parkland/institutional (RPI) land use in a potable ground water condition, with coarse textured soil (the Table 2 SCS) were selected as the appropriate SCS for the Phase Two Property.

The following sections identify and provide additional rationale for the use of the Table 2 SCS.

1.4.1 Section 35

Under Section 35 of O.Reg.153/04, the non-potable ground water SCS may be applied only if the following circumstances exist:

> *(3), (a) The property, and all other properties located, in whole or in part, within 250 metres of the boundaries of the property, are supplied by a municipal drinking water system, as defined in the Safe Drinking Water Act, 2002, and have no wells installed for the extraction of ground water;*
>
> *(b) The property is either,*
>
> *i. not located in an area designated in a municipal official plan as a well-head protection area or other designation identified by the municipality for the protection of ground water, or*

ii. if it is located in such a designated area, the municipality has consented in writing to the application of the non-potable ground water site condition standards in preparing a record of site condition for the property;

(c) The record of site condition does not specify agricultural or other use as the type of property use for which the record of site condition is filed;

(d) The owner has given the clerk of the local municipality, and of any upper-tier municipality, in which the property is located written notice of intention to apply the non-potable ground water site condition standards in preparing a record of site condition for the property; and

(e) Within 30 days after receiving the notice described in clause (d),

i neither the local municipality nor the upper-tier municipality (if any) has given written notice (in this clause called a "notice of objection") to the owner that it objects to that application of the non-potable ground water site condition standards, or

ii a local or upper-tier municipality has given a notice of objection to the owner, and the municipality, at any time after giving the notice of objection, has withdrawn the objection and given written consent to the owner for the application of the non-potable ground water site condition standards. O. Reg. 153/04, s. 35 (3).

A search of the Ontario Water Well Information System database was completed for the Phase Two Property and properties within 250 m as part of the Phase One ESA (Stantec, 2021). This search did not identify any domestic or commercial water supply wells in this area. The City of Oakville obtains its potable water from Lake Ontario located approximately 1.3 km southeast of the Phase Two Property, and the Phase Two Property is within an Intake Protection Zone. The owner was not requested to provide the clerk of the local municipality, and of any upper tier municipality in which the property is located, written notice of intention to apply the non-potable ground water site condition standards in preparing a record of site condition for the property.

Considering the above information, the potable ground water SCS available in O.Reg.153/04 were assumed applicable at the Phase Two Property.

1.4.2 Section 41

Under Section 41 of O.Reg.153/04, as amended, the Phase Two Property is to be considered environmentally sensitive if any of the following circumstances exist:

(1), (a) the property is,

(i) within an area of natural significance,

(ii) includes or is adjacent to an area of natural significance or part of such an area, or

(iii) includes land that is within 30 metres of an area of natural significance or part of such an area;

(b) the soil at the property has a pH value as follows:

(i) for surface soil, less than 5 or greater than 9,

(ii) for sub-surface soil, less than 5 or greater than 11; or

(e) a qualified person is of the opinion that, given the characteristics of the property and the certifications the qualified person would be required to make in a record of site condition in relation to the property as specified in Schedule A, it is appropriate to apply this section to the property.

Based on a review of the surrounding land use, the Ministry of Natural Resources and Forestry (MNRF) Natural Heritage Areas mapping website and an Areas of Natural or Scientific Interest (ANSIs) map, as described in the Phase One ESA (Stantec, 2021), no ANSIs were identified within 1 km of the Phase One Property. Based on the MNRP Natural Heritage Areas mapping website, an area listed in the Natural Heritage System is located approximately 215 m southwest of the Phase Two Property.

Soil samples collected from the Phase Two Property were submitted for laboratory analysis of pH. The laboratory results indicate that the pH in surface and subsurface soils ranged from 7.79 to 7.89 and from 7.54 to 8.62, respectively (**Table 3**). The pH results were therefore within the acceptable ranges for surface (5 to 9) and sub-surface (5 to 11) soils.

Considering the above observations, the Phase Two Property was not considered to be environmentally sensitive as per the definitions provided in Section 41 of O.Reg.153/04.

1.4.3 Section 43.1

Under Section 43.1 of O.Reg.153/04, specific sets of SCS are to be used if any of the following circumstances exist:

(a) the property is a shallow soil property; or

(b) the property includes all or part of a water body or is adjacent to a water body or includes land that is within 30 metres of a water body.

Under O.Reg.153/04 Section 43.1, a shallow soil property “means a property of which 1/3 or more of the area consists of soil equal to or less than 2 m in depth beneath the soil surface”.

Bedrock was not encountered in any of the boreholes completed at the Phase Two Property, which extended to depths of up to 4.1 m below ground surface (BGS). Therefore, the Phase Two Property is not considered a shallow soil property based on the depth to bedrock.

In the O.Reg.153/04 SCS (MOE, 2011a), MECP has indicated that the depth to ground water is another factor in shallow soil designation. A site with an average depth to ground water less than 3 m may also be considered a shallow soil property in some circumstances. The measured depth to ground water at the Phase Two Property ranged from 2.48 m BGS to 2.76 m BGS during the Phase Two investigation. During the remedial activities described in **Appendix B**, the ground water table was observed to be approximately 3.6 m BGS. This depth to ground water was considered sufficient such that the Phase Two Property is not considered a shallow soil property based on the average depth to ground water.

Based on the findings of the Phase One ESA (Stantec, 2021), the closest water body to the Phase Two Property is Sixteen Mile Creek located approximately 145 m southwest of the Phase Two Property.

Therefore, the Phase Two Property was not considered to be a shallow soil property, nor is the Phase Two Property situated within 30 m of a surface water body.

1.4.4 Current and Proposed Future Use

As described in **Section 2.1** above, the land use is anticipated to change from commercial to residential; therefore, the residential/parkland/institutional SCS were considered appropriate for the Phase Two Property.

1.4.5 Section 42.1

Section 42.1 of O.Reg.153/04 identifies specific generic SCS for coarse and medium/fine textured soil. The use of SCS for medium and fine textured soils occurs when "*more than 50 per cent by mass of particles are smaller than 75 micrometres (µm) in mean diameter*". The use of SCS for coarse textured occurs when "*at least 1/3 of the soil at the property, measured by volume, consists of coarse textured soil".*

Based on the results of the grain size analysis completed during the current investigation, as discussed in **Section 6.5**, more than one third of soil (measured by volume) consists of coarse textured soils; therefore, the SCS for coarse textured soil have been applied.

2.0 BACKGROUND INFORMATION

2.1 PHYSICAL SETTING

Based on a review of topographic mapping and observations made during the Phase One ESA (Stantec, 2021), the regional surface drainage in the area of the Phase Two Property was inferred to be to the southwest towards Sixteen Mile Creek, located approximately 145 m southwest of the Phase One Property.

Based on the Phase Two ESA investigation, the interpreted ground water flow direction in the unconfined aquifer at the Phase Two Property is generally toward the east, with a southward/southeastward component in the central portion of the Site. Ground water levels were not measured in the southern and western portions of the Site and therefore flow direction in these areas cannot be confirmed. Ground water flow was inferred to be to the east in April 2020, however it should be noted that the water table in this area of the Site appears to be relatively flat based on the measurements taken in April of 2020, with a difference in ground water elevation of 0.04 m. Additionally, ground water level measurements in April 2020 were only collected from the southern portion of the site building and therefore the flow direction from this monitoring event is representative of this limited area of the Phase Two Property. Ground water levels are expected to vary seasonally and in response to individual precipitation events. The inferred ground water flow directions for January and April of 2020 are shown on **Figure Nos. 3a and 3b**.

The surfaces of the Phase One Property, beyond the Site building, are primarily comprised of asphalt and concrete. Less than 5 percent of the Site is covered with landscaped areas. Stormwater collected on the Site drains to catch basins, which are assumed to be connected to the municipal stormwater sewer system. Excess stormwater is anticipated to drain by infiltration on the landscaped areas and/or by overland flow towards catch basins located in the on-site parking area or along Reynolds Street and MacDonald Road.

2.2 PAST INVESTIGATIONS

2.2.1 Stantec Phase One ESA

Stantec conducted a Phase One ESA (Stantec, 2021) at the Phase Two Property in 2020 (report dated January 15, 2021). The objective of the Phase One ESA was to determine if APECs exist at the Phase Two Property, which may be present as a result of current and/or past activities on the Phase Two Property or adjacent/neighbouring properties within 250 m of the perimeter of the Phase Two Property (“Phase One Study Area”).

The following environmental reports were reviewed as part of the Stantec Phase One ESA:

- Environmental Inspection and Testing Services, Oakville Medical Arts Building, 358 Reynolds Street, Oakville, Ontario, dated March 2, 2013, prepared by AiMS Environmental for Dr. Ross Prince of 589027 Ontario Inc.

- Phase I Environmental Site Evaluation, 358 Reynolds Street, Oakville, ON, dated December 3, 2013, prepared by Bruce A. Brown Associates Limited for Mr. John Creco and Mr. Claudio Posocco of 2235209 Ontario Inc.
- Environmental Condition of 358 Reynolds Street, Oakville, Ontario, dated June 27, 2017 (note: July 17, 2017 date also used in footer of report), prepared by Maat Environmental Engineering Corporation for Transmetro Limited.
- Environmental Condition of 358 Reynolds Street, Oakville, Ontario, dated July 31, 2017, prepared by Maat Environmental Engineering Corporation for Trontar Ltd.
- Remediation Proposal, 358 Reynolds Street, Oakville, Ontario, dated September 11, 2017, prepared by Maat Environmental Engineering Corporation for Steven Yan.

Six existing ground water monitoring wells were observed to be present on the Phase One Property at the time of the Phase One ESA.

The 2020 Phase One ESA identified that a former underground storage tank (UST) had been removed from the Phase Two Property, a remedial excavation had been conducted in the vicinity of the former UST, fill had been identified in previous investigations at the property, and there had been two fuel oil USTs immediately northeast of the Phase Two Property across Reynolds Street on the Oakville-Trafalgar Memorial Hospital property.

The Phase One ESA identified PCAs contributing to four APECs at the Phase Two Property. A summary of the PCAs and APECs is listed in table below, and on **Figure No.2**.

Table 3: Areas of Potential Environmental Concern

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern[1]	Media Potentially Impacted
1	Immediately Southwest of Phase Two Building	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	• PHCs • BTEX	Soil Ground Water
2	Area South of the Building on the Phase Two Property	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	• PHCs • BTEX • PAHs • Metals • As, Sb, Se • Hg • Cr(VI) • B-HWS • EC • SAR • CN-	Soil Ground Water

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Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern[1]	Media Potentially Impacted
3	Northern Boundary of the Phase Two Property	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	Off-Site	• PHCs • BTEX	Soil Ground Water
4[2]	Parking area of the Phase Two Property	Not Applicable (application of salt/deicing compounds in parking lot)[2]	On-Site	• EC • SAR • Sodium • Chloride	Soil Ground water

Note(s):

[1] Contaminants include petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), various metals listed above, boron – hot water soluble (B-HWS), electrical conductivity (EC), sodium absorption ratio (SAR), and free cyanide (CN-).

[2] As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of this APEC for the above-noted contaminants of potential concern is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds to the parking surfaces at the Phase One Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The above-referenced Phase One ESA was completed by Stantec in support of the planned redevelopment of the Phase Two Property, and was prepared according to the requirements of O.Reg.153/04. Relevant findings from the 2021 Phase One ESA are included in the appropriate sections below to supplement the findings of the Phase Two ESA.

3.0 SCOPE OF THE INVESTIGATION

This section presents an overview of the investigations undertaken at the Phase Two Property, a summary of the media investigated, the investigation methods utilized, description of the Phase One ESA Conceptual Site Model (CSM), a discussion of deviations from the Sampling and Analysis Plan (SAP), and a description of impediments encountered during the investigation.

3.1 OVERVIEW OF SITE INVESTIGATION

The Phase Two ESA was conducted in accordance with the requirements of O.Reg.153/04 to support the filing of an RSC.

In accordance with O.Reg.153/04 requirements, Stantec prepared a Sampling and Analysis Plan (**Appendix A.1**) to describe the location of sampling points intended to identify the presence, location, and distribution of potential COCs in soil and ground water on, in or under the Phase Two Property.

The scope of the Phase Two ESA was based on the APECs identified in the Phase One ESA (Stantec, 2021).

The Phase Two ESA included the advancement of eight boreholes, installation of monitoring wells, excavation of five test pits, and a soil and ground water SAP. The Phase Two ESA SAP is provided in **Appendix A.1**. Stantec staff observed the drilling work completed during the Phase Two ESA on January 22 and 23, 2020 (MW20-1 to MW20-5) and April 3, 2020 (MW20-6 to MW20-8). Stantec staff observed the test pitting work completed during the Phase Two ESA on October 21, 2020 (TP20-01 and TP20-02) and April 14, 2021 (TP21-1 to TP21-3). The rationale for selection of borehole and test pit locations is presented within the Phase Two ESA scope of work table within the SAP in **Appendix A.1**. Ground water sampling was completed on January 30, 2020, April 16, 2020 and April 30, 2020.

Figure No.2 presents the borehole, test pit and monitoring well locations completed at the Phase Two Property.

3.2 MEDIA INVESTIGATED

The media investigated during the Phase Two ESA were soil and ground water. No surface water was present on the Site, and sediment sampling was therefore not conducted.

The objectives of the soil and ground water sampling program were to:

- Assess soil and ground water quality within APECs at the Phase Two Property, where possible.
- Identify and assess the lateral and vertical extent of contaminants of concern (COCs) identified at the Phase Two Property, where possible.

To meet these objectives in the soil at the Phase Two Property, eight boreholes (MW20-1 to MW20-8) were advanced in the overburden soil using a track-mounted Geoprobe 420M (interior monitoring wells) or Geoprobe 7822DT (exterior monitoring wells) drilling system equipped with solid-stem augers and direct push samplers. Boreholes were advanced to a maximum depth of approximately 4.1 m. MW20-1 to MW20-4 were installed outside the site building of the Phase Two Property and MW20-5 to MW20-8 were installed within the basement in the interior of the site building. Five test pits were excavated in the overburden soil using a backhoe. Test pits were excavated to a maximum depth of approximately 3.8 m BGS.

Soil samples were analyzed as summarized below.

Table 4: Soil Sample Parameters and Number of Soil Samples Analyzed

Parameter	No. of Soil Samples Analyzed*
PHC	5
VOCs	3
BTEX	7
PAHs	4
Metals & Inorganics	13
Mercury only (TPs)	7
pH	8

Note(s):
* Not including quality assurance/quality control (QA/QC) samples.

To meet the above objectives with respect to the ground water at the Phase Two Property, eight monitoring wells (MW20-1 to MW20-8) were installed at the Phase Two Property. Monitoring and ground water sampling for select COCs was completed in January 2020 (MW20-1 to MW20-5) and April 2020 (MW20-5 to MW20-8) at the newly installed wells. Ground water at two previously installed monitoring wells (BH-2 and MW-3), discussed in **Section 3.2.1**, was also monitored and sampled in January of 2020.

Ground water samples were analyzed as summarized below.

Table 5: Ground Water Sample Parameters and Number of Soil Samples Analyzed

Parameter	No. of Samples Analyzed*
PHCs, BTEX	7
PAHs	3
Metals & Inorganics	7
Mercury only	4

Note(s):
* Not including QA/QC samples.

The locations and sampling details for each soil and ground water sample collected during the Phase Two ESA, and the parameters tested based on the SAP, are provided in **Appendix A.1**. Additional sampling details are provided on the borehole and test pit logs in **Appendix A.2**.

3.3 PHASE ONE CONCEPTUAL SITE MODEL

A conceptual site model (CSM) is a site-specific description of how contaminants enter the environment, how they are transported and distributed within the environment, and pathways through which exposure to humans and the environment can occur. The CSM provides the basis and framework for designing sampling programs, assessing risks from contaminants, addressing uncertainties, determining source control requirements, and identifying risk management/remedial strategies. Some of the key elements required in the CSM are the location and type of contaminant sources, transport/migration factors, contaminant fate/behavior, exposure mechanism/pathways, and potential receptors (human health and ecological).

In assessing and developing the CSM for the Phase Two Property at the time of the Phase One ESA, the site-specific physical characteristics/pathways were evaluated to assess whether or not the PCAs identified by the Phase One ESA could contribute to one or more APECs at the Phase One Property. The APECs identified at the Phase Two Property are summarized in **Section 3.2.1**, and the Phase Two ESA scope of work is summarized in the SAP in **Appendix A.1**.

The following physical characteristics/pathways were evaluated in order to assess whether PCAs have contributed to an APEC at the Phase One Property, and formed the Phase One CSM:

Table 6: Phase One Conceptual Site Model

Physical Characteristics/Pathways	Description
Subsurface Soils	Based on information obtained from Ontario Geological Survey Map 2556, titled Quaternary Geology of Ontario, southern sheet, native surficial soils near the Phase One Property reportedly consist of Halton Till, predominantly silt to silty clay, high in carbonate content and clast poor. The characteristic permeability of these soil deposits is low to medium. A previous investigation was completed by Maat Environmental Engineering Corporation in 2017. Stantec reviewed three borehole logs (BH1 to BH3) from this investigation. Boreholes BH1 and BH2 were advanced on the Phase One Property to a maximum depth of 3.9 m BGS and 4.0 m BGS, respectively. Borehole BH3 was advanced to a maximum depth of 5.6 m BGS, encountering bedrock at 5.2 m BGS. Subsurface conditions encountered in the boreholes consisted of gravel overlying fill materials (described as silty sand) to depths ranging from 0.5 to 4.6 m BGS. Native clayey silt till was present below the fill to depths ranging from 3.8 to 5.2 m BGS. A previous report completed by AiMs Environmental in 2013 investigated the subsurface conditions by advancing five boreholes to depths ranging from 3.8 m to 4.6 m BGS. A silty sand fill overburden was also noted during the UST removal completed in December 2012.

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Physical Characteristics/Pathways	Description
Bedrock	Based on information obtained from Ontario Geological Survey Map 2544, titled Bedrock Geology of Ontario, Southern Sheet, bedrock in the area of the Phase One Property is reported to consist of shale, limestone, dolostone, and/or siltstone of the Queenston Formation. The depth to bedrock was not indicated on the map. Previous investigations completed at the Phase One Property identified bedrock as weathered shale, at 5.2 m BGS (BH3, Structural Inspections Ltd. June 2017 geotechnical investigation, logs provided by email). According to the Water Well Information System database entries reviewed in the ERIS report, shale was encountered at depths ranging from 4.5 m to 19.0 m BGS within the Phase One Study Area.
Inferred Ground Water Flow Direction	Based on information provided in the Ontario Ministry of Natural Resources and Forestry's online Make a Topographic Map tool, and the observed topography near the Phase One Property, the regional surface drainage (inferred ground water flow direction) appears to be to the south/southwest towards Sixteen Mile Creek, located approximately 145 m southwest of the Phase One Property.
Underground Utilities	Based on information provided by the site contacts, underground utilities present at the Phase One Property include sanitary and storm sewers, potable water service, telecommunications lines, hydro-electrical lines, and natural gas. The exact locations of all underground utilities were not confirmed during the Phase One ESA. All underground utilities at the Site are no longer active. Permeable backfill materials in the immediate vicinity of these utilities can affect migration of contaminants of concern if present.
Potential Contaminants of Concern (associated with PCAs within Phase One Study Area that contribute to an APEC at the Phase One Property)	Potential COCs associated within the APECs at the Phase One Property were identified to be PHCs, BTEX, PAHs, metals, As, Sb, Se, Hg, Cr(VI), B-HWS, EC, SAR, sodium, chloride and CN- in soil and/or ground water. However as per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of the parking lots of the Phase One Property for sodium, chloride, EC and SAR is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both. Therefore sodium, chloride, EC and SAR are not considered COCs for the Phase Two Property. Concentrations of these parameters, if measured during laboratory analysis of soil and ground water samples, are deemed to not exceed the applicable site condition standard for the purpose of Part XV.1 of the Act.

The following APECs and PCAs were identified at the Phase Two Property (as illustrated on **Figure No. 2**):

- APEC 1 (immediately southwest of the site building): PCA 28 – Gasoline and Associated Products Storage in Fixed Tanks.
- APEC 2 (immediately southwest of the site building): PCA 30 – Importation of Fill Material of Unknown Quality.
- APEC 3 (northeastern boundary of the Phase Two Property): PCA 28 – Gasoline and Associated Products Storage in Fixed Tanks.
- APEC 4 (parking area of the Phase Two Property).

3.3.1 Discussion of Uncertainty or Absence of Information

The past use of the Phase Two Property is well understood based on historical information sources obtained and reviewed during the Phase One ESA. The physical characteristics of the land area comprising the Site are inferred from the historical documentation reviewed during the Phase One ESA. The presence of former and current subsurface utilities near the Site are not expected to represent significant contaminant migration pathways within the Phase One Property. No other potential uncertainties or missing information were encountered during completion of the Phase One ESA.

3.3.2 Contaminating Activity and Contaminant Distribution

The following provides a summary of the PCAs and APECs that were identified during the Phase One ESA.

The Phase One ESA completed for the Phase Two Property included a review of current and historical activities both on the Site as well as on properties located within approximately 250 m (i.e., the Phase One ESA study area). Through this review, the PCAs and APECs were identified.

3.3.2.1 Potentially Contaminating Activities

The Phase One ESA of the Phase Two Property identified evidence of APECs on, in or under the Site as well as identified PCAs located on or in the vicinity of the Site. The Phase One ESA identified the following PCAs that were currently or historically present at the Phase Two Property or within the Phase One Study Area:

#	PCA	Location	Description
1	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	A former UST located immediately southeast of the building.
2	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	Fill materials used southeast of the building during the remediation of the area of the former UST.
3	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	Off-Site	Two former USTs located 15 m northeast of the Phase One Property at 327 Reynolds Street.
4	Application of salt/deicing compounds in parking lot (PCA number not applicable)	On-Site	The on-site building is surrounded by asphalt which includes paved parking surfaces. De-icing compounds have been applied to parking surfaces for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

Based on the review of current and historical activities on the Site and within the Phase One Study Area, the most significant PCA is related to the former UST on the property.

3.3.2.2 Areas of Potential Environmental Concern

Four APECs associated with PCAs were identified at the Phase Two Property. The APECs were associated with current or historical on-site and off-site PCAs. The locations of the identified APECs are shown on **Figure No.2**.

The APECs included:

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern[1]	Media Potentially Impacted
1	Immediately Southwest of Phase Two Building	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	• PHCs • BTEX	Soil Ground Water
2	Area South of the Building on the Phase Two Property	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	• PHCs • BTEX • PAHs • Metals • As, Sb, Se • Hg • Cr(VI) • B-HWS • EC • SAR • CN-	Soil Ground Water
3	Northern Boundary of the Phase Two Property	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	Off-Site	• PHCs • BTEX	Soil Ground Water
4[2]	Parking area of the Phase Two Property	Not Applicable (application of salt/deicing compounds in parking lot)[2]	On-Site	• EC • SAR • Sodium • Chloride	Soil Ground water

Note(s):

[1] Contaminants include petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), various metals listed above, boron – hot water soluble (B-HWS), electrical conductivity (EC), sodium absorption ratio (SAR), and free cyanide (CN-).

[2] As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of this APEC for the above-noted contaminants of potential concern is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds to the parking surfaces at the Phase One Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

3.4 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

No deviations from the SAP were identified that would affect the findings of the Phase Two ESA. The Sampling and Analysis Plan is provided in **Appendix A.1**.

3.5 IMPEDIMENTS

Due to the presence of the site building, there was some limitation in the placement of boreholes/monitoring wells. However, boreholes were placed both inside and outside of the site building, and test pits were excavated at the APECs therefore this is not expected to have impacted the quality of the Phase Two ESA investigation.

There was no denial of access or other impediment during the Phase Two ESA. The overall objectives of the investigation and assessment of APEC #1, #2, and #3 were reviewed and met. APEC #4 was not formally assessed, as per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of the parking lots of the Phase Two Property for EC and SAR in soil, and sodium and chloride in ground water, is not considered warranted due to the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

4.0 INVESTIGATION METHOD

4.1 GENERAL

The investigation methodology was completed in accordance with the requirements of O.Reg.153/04.

Prior to commencing any field activities, soil sampling locations were cleared of underground services through consultation with a private utility locate company, Onsite Locates, and public utility locate services.

The soil and ground water at the Phase Two Property were investigated in January, April and October 2020, and in April 2021 at the locations shown on **Figure No.2**.

The following sub-sections provide brief descriptions of the investigation methods, equipment used, sub-contractor information, and details/rationale for departures from standard operating procedures, where applicable. Detailed investigation methodologies are presented in the SAP in **Appendix A.1**.

4.2 DRILLING AND EXCAVATING

Strata Drilling Group (Strata) was retained to undertake the January/April 2020 drilling program at the Phase Two Property. Strata is a licensed well contractor under Reg. 903 of the *Ontario Water Resources Act*. Contact information for Strata is listed below.

Mr. Mike Brown
Strata Drilling Group
129 Ringwood Drive
Stouffville ON L4A 8C1
Tel: 1-905-940-7919
mbrown@stratasoil.com

The borehole drilling undertaken by Strata utilized a either a Geoprobe 420M drilling system equipped with 89 mm (3.5 inch) outside diameter (OD) hollow-stem augers or the Geoprobe 7822DT drilling system equipped with 102 mm (4 inch) OD hollow-stem augers and both systems were equipped with direct push samplers.

Itech Environmental Services (Itech) of Brantford, Ontario, was retained directly by Transmetro to undertake excavation of test pits at the Phase Two Property. Contact information for Itech is listed below:

Mr. Len Garinger
Itech Environmental Services
200 Hachborn Road, Brantford, ON N3S 7W5
Tel: 1-877-324-4402
len.garinger@itechgroup.ca

Stantec staff were present during the drilling and test pitting activities at the Phase Two Property.

4.3 SOIL: SAMPLING

Borehole soil samples were collected at 0.76 m intervals during the January and April drilling program using direct push samplers. Soil samples from the test pits were collected at approximately 1.0 m intervals to the termination depth of the test pits. Stratigraphic descriptions of the sampling points are provided on the borehole and monitoring well, and test pit logs provided in **Appendix A.2**.

4.4 FIELD SCREENING MEASUREMENTS

During the soil and ground water sampling events, samples were analyzed in the field for combustible vapour concentrations (CVC) and total organic vapour (TOV) using a RKI Eagle 2, calibrated to hexane (CVC) and isobutylene (TOV), respectively, as described in the SAP (**Appendix A.1**)**.** Field screening measurements for soil and ground water samples are presented in the borehole logs in **Appendix A.2** and on **Table 2**, respectively.

Using the Eagle 2, “worst-case” soil samples were generally selected as those samples with the highest measured CVC/TOV concentrations. In some cases, however, professional judgment is required to select samples for analysis that are more consistent with the potential mode of contaminant release or contaminant type (e.g., location of the water table or when the COC are not volatile, such as for metals). Because contamination extent is defined by the distance (laterally and vertically) to the nearest sample that meets the applicable standards, samples to determine the extent of soil impact (through comparison of SCS) were also collected, in addition to the anticipated “worst-case” sample.

During the ground water sampling events, monitoring wells on the Phase Two Property were monitored to determine the depth to the ground water table, presence/absence of light and dense non-aqueous phase liquids (NAPL) within the monitoring well and subsurface vapour concentrations. The depth to ground water and the presence of NAPL (if present) were measured in each monitoring well using an interface probe, as described in the SAP (**Appendix A.1**)**.**

The field screening methods used for the Phase Two ESA were consistent with Schedule E of O.Reg.153/04.

4.5 GROUND WATER: MONITORING WELL INSTALLATION

4.5.1 Monitoring Well Construction

Monitoring wells were installed by Strata at eight borehole locations (MW20-01 to MW20-08) following soil sample collection during the environmental drilling program. As indicated above, Strata is a licensed well contractor under Reg. 903 of the *Ontario Water Resources Act*.

Ground water monitoring wells were placed to intersect the shallow overburden aquifer. Stantec staff was present during the well construction activities at the Phase Two Property. The construction details for

each monitoring well are presented in **Table 1** and within the borehole logs in **Appendix A.2** and described in **Appendix A.1**.

4.5.2 Monitoring Well Development

Stantec developed the new wells for the environmental program (MW20-01 to MW20-08) using Waterra® tubing and foot valves following the installation of each well. Generally, the wells were purged until a minimum of 10 casing volumes of water were removed from each well, or the well was purged dry at least twice.

4.6 GROUND WATER: FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

Water quality parameters were measured during the ground water sampling events conducted on January 30, 2020, April 16, 2020 and April 30, 2020 as described in **Appendix A.2**. Stantec measured pH, conductivity, temperature, dissolved oxygen concentration, and oxidation-reduction potential (ORP) during the well purging activities. Conductivity was also measured during the April 30, 2020 sampling event.

4.7 GROUND WATER: MONITORING

During the monitoring events conducted in January and April of 2020, activities included measuring depth to the water table, headspace CVC/TOV, and the presence/absence of phase-separated liquids in the newly-installed and existing monitoring wells. The ground water monitoring data are summarized in **Table 2**.

4.8 GROUND WATER: SAMPLING

The newly-installed monitoring wells (MW20-01 to MW20-05) and two of the existing monitoring wells (BH-2 and MW-3) were sampled on January 30, 2020. The newly-installed monitoring wells (MW20-6 to MW20-8) and previously installed interior well (MW20-5) were sampled on April 16 and April 30, 2020. The wells were sampled for the potential COCs identified to be associated with the APECs at the Phase Two Property. Ground water sampling methods are detailed in **Appendix A.1**.

4.9 SEDIMENT: SAMPLING

Sediment was not present at the Phase Two Property.

4.10 ANALYTICAL TESTING

Stantec submitted soil and ground water samples to Bureau Veritas Canada (2019) Inc. (BV). BV is accredited to ISO/IEC 17025, the International Quality Standard for laboratories for the required analytical methods and employs in-house quality assurance/quality control (QA/QC) programs to govern sample analysis, including the analyses of method blanks, spiked blanks, and the analyses of duplicates (10%)

for each sample batch. BV's Mississauga laboratory is accredited by the Standards Council of Canada (SCC). BV meets the accreditation requirements outlined in Section 47 of O.Reg.153/04.

The soil and ground water analytical results are summarized in **Tables 3a** and **b,** and **4,** respectively, and were compared to the Table 2 SCS. The soil and ground water maximum concentrations for each analyzed parameter are summarized in **Tables 5** and **6**.

All certificates of analysis or analytical reports received pursuant to Subsection 47 (2) (b) of O.Reg.153/04 comply with Subsection 47(3) of O.Reg.153/04. A certificate of analysis was received for each sample submitted for analysis. Laboratory certificates of analysis and chain-of-custody forms are included in **Appendix A.3**. Included with the laboratory reports are the analytical methods used and the laboratory reporting limits (RLs).

4.11 RESIDUE MANAGEMENT PROCEDURES

As discussed in the SAP in **Appendix A.1**, and detailed in **Appendix A.4,** soil cuttings, purge fluids, and cleaning fluids produced during the Phase Two investigation were placed in drums and/or sealed pails. Drums and pails were labeled, and the contents added to each drum documented for tracking purposes. Drums were stored adjacent to the south entrance to the site building and pails were stored in the basement of the site building pending analysis and off-site disposal. The drums and pails are intended to be removed from the Phase Two Property in conjunction with the proposed Site redevelopment.

A composite soil sample obtained from the drill cuttings was also submitted to BV for Toxicity Characteristic Leaching Procedure (TCLP) analysis. The TCLP analytical results are summarized in **Table 7** and were compared to the Reg. 347 standards.

4.12 ELEVATION SURVEYING

The ground surface elevations of all monitoring well tops of casing and adjacent grade were surveyed to a local benchmark. Relative elevations were provided in metres (m) and were referenced to the grade of existing MW-3. This permitted an assessment of relative ground water elevations between monitoring wells across the Phase Two Property.

4.13 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

Data quality objectives (DQO) establish the overall quality of data that will be appropriate to meet the investigation requirements. DQO are established so that the number and types of samples taken represent the soil (or other media) conditions and to facilitate the acquisition of analytical data of an acceptable quality to allow comparison with regulatory or other quality criteria. The DQOs and QA/QC procedures incorporated into both field and laboratory methods are described in detail in **Appendix A.1**.

As a component of the field and laboratory QA/QC program, one blind field duplicate soil sample and one blind field duplicate ground water sample were selected per parameter during the Phase Two ESA. QC sample analytical data are presented with the soil and ground water results in **Tables 3a** and **b,** and **4**,

and with the laboratory certificates of analysis in **Appendix A.3**. One field blank ground water sample and one trip blank ground water sample were also submitted for VOCs and PHCs analysis in water.

The Relative Percent Difference (RPD) of the regular and duplicate samples were calculated to evaluate the precision of the analytical results, as described in the SAP in **Appendix A.1**.

In addition to the field QC samples identified above for soil and ground water, laboratory QC measures included analysis of laboratory replicates, matrix spikes, spiked blanks, and method blanks.

There were no deviations from the SAP with regard to the field QA/QC procedures employed during the Phase Two ESA, with the exception that a field soil duplicate sample was not submitted for the two soil samples analyzed for VOCs during the Phase Two ESA field program. This deviation was not considered to have affected the overall assessment of soil and ground water quality at the Phase Two Property.

5.0 REVIEW AND EVALUATION

5.1 GEOLOGY

5.1.1 Surficial Geology

Based on information obtained from Ontario Geological Survey Map 2556, titled *Quaternary Geology of Ontario*, southern sheet, native surficial soils near the Phase Two Property reportedly consist of Halton Till, predominantly silt to silty clay, high in carbonate content and clast poor. The characteristic permeability of these soil deposits is low to medium.

The soil profile observed by Stantec during the Phase Two ESA generally consisted of fill and/or sand/silty sand overlying silt till. The main overburden units encountered in boreholes completed during the Phase Two ESA are summarized as follows:

- **Fill:** Sand with silt and/or gravel, silt with some sand, silty gravel, silty sand up to approximately 3.7 m BGS (maximum depth of fill observed in MW20-3, in the area of the former UST).
- **Native sand to silty and sandy gravel:** Underlying the fill and above the silt till
- **Silt till:** A stiff silt till underlying the fill was observed up to 4.1 m BGS (maximum depth investigated).
- **Crushed Gravel:** Crushed gravel lenses occur within the suspected fill at MW20-3 and MW20-4 ranging in thickness between 0.05 to 0.1 m.

Borehole and test pit logs are presented in **Appendix A.2.** Cross section profiles of stratigraphy are presented on **Figure Nos. 7 to 10**.

5.1.2 Bedrock Geology

Based on information obtained from Ontario Geological Survey Map 2544, titled *Bedrock Geology of Ontario*, Southern Sheet, bedrock in the area of the Phase Two Property is reported to consist of shale, limestone, dolostone, and/or siltstone of the Queenston Formation. The depth to bedrock was not indicated on the map.

Previous investigations completed at the Phase Two Property identified bedrock as weathered shale, at 5.2 m BGS (BH3). During the remedial excavation completed by Stantec south of the building, competent shale bedrock was encountered at approximately 4.0 m BGS. According to the Water Well Information System database entries reviewed in the ERIS report during the Phase One ESA, shale was encountered at depths ranging from 4.5 m to 19.0 m BGS within the Phase One Study Area.

5.2 GROUND WATER: ELEVATIONS AND FLOW DIRECTION

The depth to ground water, presence/absence of liquid petroleum hydrocarbons (LPH) and well headspace CVC and TOV were monitored in each of the five monitoring wells at the Phase Two Property on January 23, 2020, January 30, 2020, April 16, 2020 and April 30, 2020.

Monitoring data are summarized in **Table 2**. The depth to ground water on January 23, 2020 ranged from 2.48 m to 2.66 m BGS, with ground water elevations ranging from 97.26 m RTD to 97.53 m RTD. The depth to ground water on January 30, 2020 ranged from 2.50 m to 2.76 m BGS, with ground water elevations ranging from 97.29 to 97.61 m RTD. Note that the water level recorded at MW20-5 in January was considered anomalous and was not considered in the determination of flow path. At the time of monitoring in January 2020, ground water flow direction was generally toward the east with a southward/southeastward component in the central portion of the Site (**Figure No. 3a**).

In April 2020, only the wells in the interior southern portion of the site building were monitored. The depth to ground water on April 16 and April 30, 2020 ranged from 2.62 to 2.73 m BGS, with ground water elevations ranging from 97.27 m RTD to 97.35 m RTD. At the time of monitoring in April 2020, ground water flow in the vicinity of the wells in the southern interior portion of the site building was generally toward the east (**Figure No. 3b**). However, this is only representative of the ground water in this limited portion of the Phase Two Property.

It is noted that shallow ground water may be influenced by current and/or abandoned utilities present on the Phase Two Property.

Neither light non-aqueous phase liquids (LNAPL) nor dense non-aqueous phase liquids (DNAPL) were observed in any of the monitoring wells during the January 2020 or April 2020 sampling events.

Well headspace CVC and TOV concentrations were measured in the monitoring wells sampled at the Phase Two Property in January 2020. The measured CVC concentrations in all monitoring wells did not exceed 5 parts per million by volume (ppm_v), while the maximum measured TOV concentration was 1 ppm_v (various locations).

5.3 GROUND WATER: HYDRAULIC GRADIENTS

The horizontal hydraulic gradient measured at the Phase Two Property was calculated to be approximately 0.01 m/m in shallow ground water, based on ground water flow monitored in April 2020, and approximately 0.0083 to 0.01 m/m in shallow ground water, based on ground water flow monitoring in January 2020. It is important to note that the ground water elevations from April 2020 are from the southern portion of the site building on the Phase Two Property, therefore the gradient calculated for April 2020 is reflective of the gradient within this portion of the Phase Two Property. Vertical hydraulic gradient was not calculated since no nested monitoring wells (i.e., monitoring wells that are screened in two separate water bearing zones) were required at the Site.

5.4 GROUND WATER: HYDRAULIC CONDUCTIVITY

As no ground water COCs were identified during the Phase Two ESA, hydraulic conductivity (K) testing was not performed on the Phase Two Property. However, to provide an estimate of ground velocity range at the Phase Two Property, the Kozeny-Carman equation was applied using the grain size analysis (included in **Appendix A.2**) (Kozeny (1927), Carman (1937)). This resulted in a calculated hydraulic conductivity of approximately $2.5x10^{-4}$ m/second. This hydraulic conductivity is within the range of reasonable values obtained from literature for medium sand, i.e. $9x10^{-7}$ to $5x10^{-4}$ m/second (Domenico and Schwartz, 1990).

The ground water velocity (v) is defined as the Darcy flux (q) divided by the porosity (n) of the aquifer as follows:

$v=q/n=Ki/n$

The Darcy flux (q) is also defined as K multiplied by the hydraulic gradient (i). The hydraulic gradient calculated at the Phase Two Property was calculated to be approximately 0.01 m/m (as summarized in **Section 6.3**). The porosity of the soil at the Phase Two Property was estimated based on literature values. Medium sand typically has a porosity of approximately 40% (Freeze and Cherry (1979)).

The ground water velocity at the Phase Two Property was estimated to be approximately $6.3x10^{-6}$ m/s, or 197 m/year. The calculated ground water velocity is conservative and likely does not relate directly to the velocity of dissolved compounds as it does not account for dispersion, sorption or degradation of the potential contaminant.

5.5 COARSE SOIL TEXTURE

Coarse soil texture has been selected as the appropriate SCS for the Phase Two Property.

During the current investigation, one soil sample, representative of the soil encountered at the Phase Two Property (i.e., 1.5 to 3 m BGS at MW20-2), was submitted for grain size distribution analysis. The soil sample had 2.0% by mass of particles that were less than 75 micrometres in mean diameter and would therefore be considered a coarse textured soil. The grain size results from the current investigation are presented following the borehole and test pit logs in **Appendix A.2**.

Based on the results of the grain size analysis and general field observations of coarse textured soils, greater than 1/3 of soil (measured by volume) consists of coarse textured soils; therefore, the standards for coarse textured soil have been applied.

5.6 SOIL: FIELD SCREENING

As summarized in **Section 5.4**, soil field screening for potential impacts was completed for recovered borehole samples using visual and olfactory observation and by measuring headspace CVC and TOV using an RKI Eagle 2 equipped with a photoionization detector (PID). Soil samples recovered from the test pits were not field screened.

CVC measurements in soil samples collected during the drilling activities were less than 5 ppm_v for all samples. TOV measurements ranged from less than 0.02 ppm_v (MW20-05, 2.4 to 3.0 m below the basement level (BBL)) to 4.0 ppm_v (MW20-4, 0 to 1.2 m BGS and 3.0 to 3.7 m BGS). Soil screening CVC and TOV readings are presented on the borehole logs in **Appendix A.2**. Soil sampling locations are shown on **Figure No.2**. Soil screening was not conducted for MW20-06 to MW20-08 as the contaminant of concern for these boreholes was mercury, which is not indicated by CVC or TOV measurements.

The following environmentally significant observations were made during the soil field screening:

- Seams of gravel were observed in MW20-3 and MW20-4, likely associated with backfill from the former UST excavation in this area.
- Decomposed wood was observed within the top 0.4 m of MW20-2, likely associated with fill present in this area.
- No staining or odours were noted at any of the sampling locations, with the exception PHC odours and staining at the bottom of TP21-2 at a depth of 2.9 – 3.2 m BGS.

No other environmentally significant observations were made during the soil field screening activities.

Borehole and test pit logs are presented in **Appendix A.2.**

5.7 SOIL QUALITY

The laboratory analytical results for BTEX, VOCs, PHCs, PAHs, metals, and inorganic parameters in the soil samples recovered from MW20-1 to MW20-8, and TP20-01, TP20-02, TP21-1, TP21-2 and TP21-3 are presented in **Tables 3a** and **3b** along with the respective Table 2 SCS**.** A summary of maximum soil concentrations for each analyzed parameter is presented in **Table 5**. A summary of soil analytical results compared to the Table 2 SCS is illustrated on **Figure Nos. 4a** to **4d**.

The laboratory results for the composite soil sample submitted for waste characterization (TCLP) analysis are presented in **Table 7** along with the applicable Reg. 347 standards. As indicated, the concentrations of the aforementioned parameters in the submitted soil sample met their respective Reg. 347 standards, indicating that soil excavated at the Phase Two Property may be considered non-hazardous waste for off-site disposal purposes.

The laboratory certificates of analysis for soil samples are provided in **Appendix A.3**.

5.7.1 Contaminants of Concern - Soil

COCs in soil at the Phase Two Property were typically identified using the following rationale:

1. If an analyzed parameter was not detected at concentrations greater than the laboratory RLs in all of the soil samples analyzed for that parameter, the parameter was assumed absent from the investigated areas of the Phase Two Property.

2. A parameter was considered a COC if it was detected at a concentration greater than the Table 2 SCS.

3. A parameter was considered a COC if the RL for the parameter was greater than the Table 2 SCS.

The following parameters were considered a COC in soil:

- Mercury
- PHC F2
- PHC F3

EC and SAR values in soil exceeded Table 2 SCS for one or both parameters at MW20-3, MW20-4, and MW20-5, however, these concentrations are interpreted to be a result of application of deicing compounds and therefore are not considered Table 2 SCS exceedances or COCs for RSC purposes.

The mercury COC does not biodegrade, therefore it is Stantec's opinion that naturally occurring biodegradation processes (or chemical processes) are not likely to have lowered the soil concentrations significantly between the time at which the samples were recovered and the time of the filing of an RSC. The PHC F2 and PHC F3 COCs can biodegrade, however the samples with concentrations of PHC F2 and PHC F3 exceeding the Table 2 SCS during the Phase Two ESA were recovered within a month of completing a remedial excavation to remove the applicable contaminants from the Site. Therefore biodegradation of these PHCs is not considered relevant to the filing of an RSC.

A remedial action plan (RAP) was developed for the Phase Two Property based on the results of the current Phase Two ESA. The RAP proposed the removal of impacted soil from the Phase Two Property such that the concentrations of the COC in soil at the Phase Two Property would be less than the Table 2 SCS prior to filing an RSC. The remediation activities are discussed in **Appendix B**. As demonstrated in the summary of remedial activities in **Appendix B,** the mandatory vertical delineation elements of the Phase Two ESA were achieved.

Data from confirmatory soil samples from the completed base and walls of the remedial excavations are included in **Appendix B**. Given that analyzed parameters were not detected at concentrations greater than the laboratory reportable detection limits (RDLs) or where concentrations were detected, they were less than Table 2 SCS for residential/ parkland/ institutional land use, no COCs in soil were present at the Phase Two Property at the conclusion of the remediation program.

5.7.2 Area of Soil Impacts – Mercury

As summarized on **Figure No.4d**, analytical results of mercury from soil samples collected from boreholes and test pits identified the following Table 2 SCS exceedances from the current investigations:

- The concentration of mercury exceeding the Table 2 SCS from two soil samples collected at MW20-5 at a depth of 1.6 to 3.4 m BGS.

As discussed in Section 6.7.1, the concentrations demonstrated in **Figure No. 4d** for EC and SAR are not considered exceedances for RSC purposes.

Source, Distribution, and Migration of Identified Impacts

The identified mercury impact noted in soil at this location was likely associated with former Medical Arts operations at the Site within the building.

As shown on **Figure Nos. 4d, 7d** and **8d**, the identified mercury impact to soil was vertically delineated by the sample collected at 3.5 m to 4.0 m BGS in MW20-5. The identified Mercury impact to soil was also vertically delineated by soil samples collected from the completed base and walls of the remedial excavation, illustrated and tabled within **Appendix B**.

The lateral extent of the mercury impact has been delineated to the northwest (MW20-07), to the north (MW20-8), to the northeast (MW20-6), to the east (TP20-01 and TP20-02), and to the south (TP-21-1 and TP21-2). The identified mercury impact to soil was also laterally delineated by soil samples collected from the completed base and walls of the remedial excavation, which is illustrated and tabled within **Appendix B**.

The identified mercury soil impact exceeding the Table 2 SCS has been addressed through the completion of a remedial excavation, detailed in **Appendix B**.

5.7.3 Area of Soil Impacts – PHC F2 and PHC F3

As summarized on **Figure No.4a**, analytical results of PHCs from soil samples collected from boreholes identified the following Table 2 SCS exceedances from the current investigations:

- The concentrations of PHC F2 and PHC F3 exceeding the Table 2 SCS from one soil sample collected at TP21-2 at a depth of 2.9 to 3.2 m BGS.

Source, Distribution, and Migration of Identified Impacts

The identified PHC F2 and PHC F3 impacts noted in soil at this location were likely associated with the historical presence of a fuel oil UST south of the Site building.

As shown on **Figure Nos. 4a, 7a** and **8a**, the identified PHC F2 and PHC F3 impacts to soil were vertically delineated by the samples collected at 3.0 m to 3.7 m BGS in MW20-4, from 1.6 m to 2.8 m in MW20-5, and TP21-3 from 2.4 m to 2.7 m BGS in TP21-3. The identified PHC F2 and PHC F3 impacts to soil were also vertically delineated by soil samples collected from the completed walls of the remedial excavation, illustrated and tabled within **Appendix B**.

The lateral extent of the PHC F2 and PHC F3 impacts has been delineated to the northeast (MW20-05), to the west (TP21-3), and to the south (MW20-3). The identified PHC F2 and PHC F3 impacts to soil were also laterally delineated by soil samples collected from the completed walls of the remedial excavation, illustrated and tabled within **Appendix B**.

The identified PHC F2 and PHC F3 soil impacts exceeding the Table 2 SCS have been addressed through the completion of a remedial excavation, detailed in **Appendix B**.

5.8 GROUND WATER QUALITY

The laboratory analytical results for PHCs, BTEX, PAHs, metals, and inorganic parameters in the ground water samples recovered from MW20-1 to MW20-8 and existing wells BH-2 and MW-3 are presented in **Table 4** along with the respective Table 2 SCS**.** A summary of maximum ground water concentrations for each analyzed parameter is presented in **Table 6**. A summary of ground water analytical results compared to Table 2 SCS is illustrated on **Figure Nos. 5a** to **5d**. The laboratory certificates of analysis are provided in **Appendix A.3**.

5.8.1 Contaminants of Concern - Ground Water

COCs in ground water at the Phase Two Property were typically identified using the following rationale:

1. If an analyzed parameter was not detected at concentrations greater than the laboratory RLs in all of the ground water samples analyzed for that parameter, the parameter was assumed absent from the Phase Two Property.

2. A parameter was considered a COC if it was detected at a concentration greater than the Table 2 SCS.

3. A parameter was considered a COC if the RL for the parameter was greater than the Table 2 SCS.

The concentration of mercury in the ground water sample recovered from MW20-1 on January 30, 2020 exceeded the Table 2 SCS however this result was considered anomalous due to insufficient development and ground water recovery of this well. However, after further well purging and ground water recovery, the concentrations of mercury measured in ground water samples recovered on two separate dates in April 2020 were less than the Table 2 SCS and the laboratory reportable detection limit (RDL).

Sodium and chloride concentrations in ground water exceeded Table 2 SCS for one or both parameters at MW20-3, MW20-5, and the duplicate sample taken at MW20-6 however, these concentrations are interpreted to be a result of application of deicing compounds in the immediate vicinity of the building and therefore are not considered Table 2 SCS exceedances or COCs for RSC purposes.

Based on the above discussions, no COCs in ground water were considered present at the Phase Two Property.

5.9 SEDIMENT QUALITY

Sediment sampling was not required as per the sampling and analysis plan for the Phase Two ESA.

5.10 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

The objective of the investigation was to collect data that were precise, accurate, reproducible, complete, and suitable for comparison with the Table 2 SCS. DQOs used to assess the precision of the soil sample analyses, are listed in **Section 5.13**.

Soil and ground water samples collected by Stantec were handled consistent with the requirements of O.Reg.153/04. A laboratory certificate of analysis was received for each soil and ground water sample submitted for analysis and each parameter for which analysis was requested. Copies of the laboratory Certificates of Analysis are included in **Appendix A.3**.

5.10.1 Field QA/QC Program

The calculated RPD values for the field duplicate soil and ground water samples are presented in **Tables 3a** and **4**.

The RPDs were not calculated for PHC F1 to F4, BTEX or PAHs in soil samples because the concentrations were less than the RLs or were less than five times the RLs, and the samples were therefore considered to be similar. The RPDs for metals and inorganics calculated for soil samples MW20-4-3 and MW20-7-4 and their respective field duplicate ranged from not calculable (one or both samples were less than the RL) to 20% and were less than the respective screening criteria.

The RPDs were not calculated for PHC F1 to F4, BTEX, or PAHs in ground water samples because the concentrations were less than the RLs or were less than five times the RLs. The RPDs for metals calculated for the ground water sample recovered at MW20-4 and MW20-6 and their respective field duplicate ranged from 0% to 74%.

- MW20-6: The RPDs for Barium (61%) and Sodium (74%) exceeded the screening-level acceptance criteria (i.e., 30% for metals). Given that the concentrations of Barium were less than the Table 2 SCS in the sample where the RPD exceeded screening-level acceptance criteria, the decreased precision was not considered to affect the interpretation of ground water data quality at the Phase Two Property. Given that the presence of sodium is assumed to be associated with application of deicing compounds adjacent to the building, sodium is not considered a COC for the purposes of the RSC and therefore the decreased precision for this parameter was not considered to affect the interpretation of ground water data quality at the Phase Two Property.

The results of trip blank and field blank analyses from the ground water sampling programs indicated that concentrations of PHCs, BTEX and metals were less than the laboratory RLs, suggesting that no contaminants were introduced during sampling activities or during transportation from the Phase Two Property to the laboratory.

5.10.2 Laboratory QA/QC Program

In addition to the assessment of field duplicates, the analytical laboratory followed internal QA/QC protocols, which included method blank, matrix spike, spiked blank, QC standard, and laboratory duplicate analyses. BV reported the following laboratory QA/QC qualifiers:

- Soil samples submitted on February 6, 2020 and January 27, 2020: Chromium (VI) matrix spike recovery was below the lower control limit which was noted as possibly due in part to the reducing environment of the sample, the lab reanalyzed the sample with the same results. For the acid extractable Mercury matrix spike, the recovery or RPD was outside of control limits, the lab indicated that the overall quality control for the analysis met acceptability criteria therefore this is not expected to have had an impact on the interpretation of the results.
- Soil samples MW20-4-3 and QC-01: greater than 10g of soil was included in the preserved vial which exceeds the protocol specification; additional methanol was added to the vial to ensure extraction efficiency for PHC F1 and BTEX analysis.
- TCLP: For leachable nitrate and leachable nitrate and nitrite, the recovery or RPD was outside of control limits, the lab indicated that the overall quality control for the analysis met acceptability criteria therefore this is not expected to have an impact on the interpretation of the results.
- Ground water samples submitted April 16, 2020: for the silver (Ag) matrix spike, recovery or RPD was outside of control limits; the lab indicated that the overall quality control for the analysis met acceptability criteria therefore this is not expected to have had an impact on the interpretation of the results.
- Ground water samples submitted on January 31, 2020: for the matrix spike for 2-methylnaphthalene, the recovery was below the lower control limit; the lab noted that this may represent a low bias in some results for this specific analyte. As all 2-methylnaphthalene concentrations for submitted samples were less than the RDLs for the lab, this is not expected to have had an effect on the interpretation of the results.

Based on the above, BV did not indicate any significant quality concerns that would be considered to affect the interpretation of soil and ground water quality at the Phase Two Property.

5.10.3 Summary

Based on the above assessment, it is Stantec's opinion that the results of the QA/QC procedures indicated that the DQO for the soil and ground water data were met, and that the data were of acceptable quality and adequate for their intended use.

5.11 PHASE TWO CONCEPTUAL SITE MODEL

Stantec has prepared the following CSM in accordance with Section 43 of Schedule E to O.Reg.153/04. The CSM builds on the Phase One CSM that was prepared for the Phase One ESA report for the Phase Two Property (Stantec, 2021).

The following is a summary of the environmental conditions at the Phase Two Property:

Table 7: Phase Two Conceptual Site Model

Phase Two Conceptual Site Model Requirements		Description
1.	Provide a narrative description and assessment of,	
i.	Areas where potentially contaminating activity has occurred,	**On-site PCAs:** • Gasoline and Associated Product Storage in Fixed Tanks (PCA 28) – A former 4500 L UST located immediately southeast of the site building. The depth of the bottom of the UST was approximately 2.3 m BGS. • Importation of Fill Material of Unknown Quality (PCA 30) – Fill materials used during 2012 remediation related to a former UST located immediately southeast of the site building. Maximum excavation depth of the 2012 remediation was approximately 3.7 m BGS. • The application of salt/deicing compounds to the parking surfaces at the Phase One Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both (PCA number not applicable). **Off-site PCAs:** • Gasoline and Associated Product Storage in Fixed Tanks (PCA 28) – Two former USTs located 15 m northeast of the Phase One Property at 327 Reynolds Street.
ii.	Areas of potential environmental concern, and	• APEC 1 – Immediately southwest of the site building as a result of on-site PCA 28. • APEC 2 – Area immediately southwest of the site building as a result of on-site PCA 30. • APEC 3 – Northern boundary of the Phase Two Property as a result of off-site PCA 28. • APEC 4 – Parking area of the Phase Two Property as a result of salt application. The APECs and associated PCAs identified above are illustrated on **Figure No.2**.
iii.	Any subsurface structure and utilities on, in or under the Phase Two Property that may affect contamination distribution transport.	Underground utilities (disconnected) associated with the Medical Arts Building are located south of the building at the Phase Two Property. The presence of these utilities is not likely to provide a significant preferential contaminant migration pathway as the surrounding soils at the Site are already coarse textured. Since no COCs were identified in ground water, the underground utility placement is not anticipated to significantly affect contamination distribution transport through ground water.

Phase Two Conceptual Site Model Requirements		Description
2.	Provide a narrative description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas under it including,	
i.	Stratigraphy from ground surface to the deepest aquifer or aquitard investigated,	• The soil profile at the Phase Two Property, generally consisted of sand, silt and gravel fill (up to 3.7 m BGS, overlying sand to silty and sandy gravel, which overlies a silt till to the maximum depth investigated (4.1 m BGS). • Bedrock was not encountered to the maximum investigation depth of 4.1 m BGS during the Phase Two ESA, however competent shale bedrock was encountered at a depth of 4.0 m BGS at the base of the 2021 remedial excavation for PHCs. • Interpreted stratigraphic cross-sections are included as **Figure Nos. 7** to **10** and borehole/test pit logs are provided in **Appendix A.2**.
ii.	Hydrogeological characteristics, including aquifers, aquitards, and in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable standards, lateral and vertical gradients,	• The interpreted ground water flow direction in the unconfined aquifer at the Phase Two Property is generally toward the east with a southward/southeastward component in the central portion of the Site as shown on **Figure Nos. 3a** and **3b**. • The horizontal hydraulic gradient measured at the Phase Two Property was calculated to be approximately 0.01 m/m. The vertical hydraulic gradient was not calculated, as only shallow monitoring wells were installed as part of the Phase Two ESA.
iii.	Approximate depth to bedrock,	• Bedrock was not encountered during the Phase Two ESA (up to 4.1 m BGS), however competent shale bedrock was encountered at a depth of 4.0 m BGS at the base of the 2021 remedial excavation for PHCs. • Based on previous investigations at the Phase Two Property reviewed as a part of the Phase One ESA, shale bedrock has been encountered at 5.2 m BGS.
iv.	Approximate depth to water table,	• Ground water was encountered in the monitoring wells between 2.48 m BGS (at MW20-4 on January 23, 2020) to 2.76 m BGS (at BH-2 on January 30, 2020) at the Phase Two Property. Ground water elevations in the monitoring wells ranged from approximately 97.26 m RTD (at MW20-2 on January 23, 2020) to 97.61 m RTD (at BH-2 on January 30, 2020).
v.	Any respect in which section 41 or 43.1 of the regulation applies to the property,	• The Phase Two Property is not considered environmentally sensitive as defined by Section 41 of O.Reg.153/04. • The Phase Two Property is not considered a shallow soil property as defined by Section 43.1 (a) of O.Reg.153/04; • There are no waterbodies located within, immediately adjacent or within 30 m of the Phase

Phase Two Conceptual Site Model Requirements		Description
		Two Property. Therefore, Section 41 or 43.1 (b) of O.Reg.153/04 would not apply to the Phase Two Property.
vi.	Areas on, in, or under the Phase Two Property where excess soil is finally placed, and	• Fill soil is known to have been imported to the Phase Two Property during removal of a previous UST in 2012 south of the building (APEC 2).
vii.	Approximate locations if known, of any proposed building or other structures.	• The Phase Two Property is currently occupied by the vacant Medical Arts Building and associated parking areas. The proposed redevelopment is for a residential and community development. However, the location and footprint of the proposed buildings within the Phase Two Property are not confirmed.
3.	Provide, where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, identification of,	
i.	Each area where a contaminant is present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard,	**Soil:** • COCs present in soil with a concentration that exceeded the Table 2 SCS included mercury and PHC F2 and PHC F3. Concentrations of all other soil samples were less than the Table 2 SCS for the parameters analysed with the exception of electrical conductivity and sodium absorption ratio. As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of the parking lots of the Phase Two Property for EC and SAR is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both. Therefore, EC and SAR are not considered COPCs in soil for the Phase Two Property. Concentrations of these parameters, if measured during laboratory analysis of soil samples, are deemed to not exceed the applicable site condition standard for the purpose of Part XV.1 of the Act. • **Figure No. 4a** presents the soil COC lateral distribution for PHC F2 and PHC F3 at the Phase Two Property. • **Figure Nos. 7a** and **8a** present the vertical distribution for PHC F2 and PHC F3 at the Phase Two Property. • In general, concentrations of PHC F2 and PHC F3 in soil greater than the Table 2 SCS were limited to one location at depths from 2.9 to 3.2 m in TP21-2 immediately south of the site building. • **Figure No. 4d** presents the soil COC lateral distribution for mercury at the Phase Two Property. • **Figure Nos. 7d** and **8d** present the vertical distribution for mercury at the Phase Two Property.

Phase Two Conceptual Site Model Requirements	Description
	• In general, concentrations of mercury in soil greater than the Table 2 SCS were limited to one location at depths from 1.6 to 3.4 m BGS under the basement in the southern corner of the site building.
	Ground Water: • No COCs in ground water were considered present at the Phase Two Property. • Sodium and chloride were detected at concentrations exceeding Table 2 SCS, however these concentrations are interpreted to be a result of application of deicing compounds and therefore are not considered Table 2 SCS exceedances for RSC purposes. As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of the area south of the building of the Phase Two Property for sodium and chloride is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both. Therefore, sodium and chloride are not considered COCs in ground water for the Phase Two Property. Concentrations of these parameters, if measured during laboratory analysis of ground water samples, are deemed to not exceed the applicable site condition standard for the purpose of Part XV.1 of the Act.
ii. The contaminants associated with each of the areas referred to in subparagraph i.	**Soil COC:** • Mercury • PHC F2 • PHC F3 **Ground Water COC:** • None identified.
iii. Each medium in which a contaminant associated with an area referred to in subparagraph i is present.	• COCs that exceeded the Table 2 SCS were identified in soil. No COCs were identified in ground water, and sediment is not present at the Phase Two Property.
iv. A description and assessment of what is known about each of the areas referred to in subparagraph i.	• PHC F2 and PHC F3 impacts noted in soil greater than the Table 2 SCS found at TP21-2 south of the building were likely associated with the historical presence of a fuel oil UST south of the Site building. Residual PHC impacted soil appears to have been left un-remediated in 2012. • Mercury in soil greater than the Table 2 SCS was found at MW20-5 located in the basement of the southern portion of the site building on the Phase Two Property. The Mercury impact in soil was considered to be associated with former unspecified activities at the Medical Arts Building.

Phase Two Conceptual Site Model Requirements		Description
v.	For each parameter group as defined in the Analytical Protocol for which a contaminant has been analyzed, the distribution, in each of the areas referred to in subparagraph i, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution,	• **Figure No. 4a** presents the distribution and extent of horizontal soil impacts for PHC F2 and PHC F3 at the Phase Two Property. • **Figure Nos. 7a** and **8a** present the vertical distribution for PHC F2 and PHC F3 at the Phase Two Property. • **Figure No. 4d** presents the distribution and extent of horizontal soil impacts for mercury at the Phase Two Property. • **Figure Nos. 7d** and **8d** present the vertical distribution for mercury at the Phase Two Property. • No COCs were identified in ground water at the Phase Two Property.
vi.	Anything known about the reason for the discharge into the natural environment of the contaminants present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard	• Based on the nature and very limited distribution of the contaminants, it is the QP_{ESA}'s opinion that the source of the identified soil contamination is associated with an historical fuel oil UST south of the site building (for PHC F2 and PHC F3) and former unspecified activities inside the Medical Arts Building (for mercury). Residual PHC impacted soil in the former UST area appears to have been left un-remediated in 2012.
vii.	Anything known about the migration away from any area of potential environmental concern of the contaminants present on, in or under the Phase Two Property at a concentration greater than the applicable site condition standard, including the identification of any preferential pathways,	• As permeable fill was placed associated with the 2012 remediation of contaminated soil from the historical presence of a fuel oil UST in a limited area south of the building, it is expected that residual PHC F2 and PHC F3 contamination in soil is not considered to be significantly migrating from the identified location due to lower permeability of surrounding undisturbed native soils. • Given the nature and limited location of mercury in soil, along with the depth to ground water, the mercury COC in soil is not considered to be significantly migrating from the identified location.
viii.	Climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in ground water levels, and	• Daily average temperatures for the Oakville area range from a minimum of -5ºC (January) to a maximum of 21ºC (July). Precipitation (rain and snowfall) ranges from approximately 31 mm (February) to 79 mm (August) (Environment Canada, 2020). • Considering the depth to ground water and the lower permeability of surrounding undisturbed native soils in the location of the PHC F2 and PHC F3 contaminants within the previous remedial excavation, and the moderate precipitation, precipitation may preferentially accumulate in the short-term in the area of contamination. However concentrations of PHCs in ground water were found to be less than the Table 2 SCS. Thus it is considered unlikely that the local climate or meteorological conditions have affected the distribution of PHC F2 and PHC F3 at the Phase Two Property.

Phase Two Conceptual Site Model Requirements		Description
		• Considering the depth to ground water, the location of the mercury contaminant under the basement floor, and the moderate precipitation, it is considered unlikely that the local climate or meteorological conditions have affected the distribution of mercury at the Phase Two Property.
ix.	If applicable, information concerning soil and vapour intrusion of contaminants into buildings, including, A. Relevant construction features of a building, such as a basement or crawl space, B. Building heating, ventilating and air conditioning design and operation, and C. Subsurface utilities.	• The current building is unoccupied, not operational (no connected heating, ventilation or air conditioning or other utilities present), and slated for future demolition. The future building configuration is unknown. Therefore, vapour intrusion risks prior to the 2020/2021 remediation completed at the Phase Two Property were assumed to be insignificant. • No COCs were identified in ground water at the Phase Two Property.
4.	Provide, where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, two or more cross-sections showing, by parameter group as defined in the Analytical Protocol for which a contaminant has been analyzed	
i.	The lateral and vertical distribution of each contaminant in each area where the contaminants is present at concentrations greater than the applicable site condition standard in soil, ground water and sediment,	Soil impacted with PHC F2 and PHC F3 greater than the Table 2 SCS was found at TP21-2 from 2.9 – 3.2 m BGS south of the building likely associated with residual PHC impacted soil left un-remediated from the historical presence of a fuel oil UST. The lateral and vertical distribution of PHC soil contaminants present at the Phase Two Property are shown in the cross-sections provided on **Figure Nos. 7a** and **8a**. Identified COCs have been delineated vertically and horizontally at the Phase Two Property. • Soil impacted with mercury was identified under the southern corner of the basement of the Medical Arts Building on the Phase Two Property from 1.6 to 3.4 m BGS. The lateral and vertical distribution of mercury soil contaminants present at the Phase Two Property are shown in the cross-sections provided on **Figure Nos. 7d** and **8d**. Identified COCs have been delineated vertically and horizontally at the Phase Two Property. • No COCs were identified in ground water at the Phase Two Property. The results of all the sampled locations are indicated in cross-section on **Figure Nos. 9a** to **d** and **10a** to **d**.
ii.	Approximate depth to water table in each area referred to in subparagraph i,	• Depth to water table at the Phase Two Property ranged from approximately 2.48 m BGS to 2.76 m BGS, as shown in **Table 2**.
iii.	Stratigraphy from ground surface to the deepest aquifer or aquitard investigated, and	• The soil profile at the Phase Two Property, generally consisted of sand, silt and gravel fill (up to 3.7 m BGS in the area of the 2012 remediation of the former UST), overlying sand to silty and sandy gravel, which overlies a silt till to the maximum depth investigated (4.1 m BGS).

Phase Two Conceptual Site Model Requirements		Description
		• Bedrock was not encountered to the maximum investigation depth of 4.1 m BGS during the Phase Two ESA, however competent shale bedrock was encountered at a depth of 4.0 m BGS at the base of the current remedial excavation for PHCs. • Interpreted stratigraphic cross-sections are included as **Figure Nos. 7** to **10** and borehole logs are provided in **Appendix A.2**.
iv.	Any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in subparagraph i.	Given the nature and location of the soil COCs in very limited areas, along with the depth to ground water, COCs in soil are not expected to be migrating from the identified locations due to subsurface structures and utilities.
5.	Provide, for each area where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes,	
i.	The release mechanisms,	• Historically, the building on-site was used as an apartment and for medical offices. • A heating oil UST which had leaked, was removed along with most associated contaminated soils. • Mercury in soil was assumed to be associated with a single limited release of a material containing mercury generated by the former medical office operation on-site. • Refer to **Figure No.11**.
ii.	Contaminant transport pathway,	• Soil ingestion and dermal contact. • Particulate inhalation. • Vapour inhalation. • Plant uptake. • Refer to **Figure No.11**.
iii.	The human and ecological receptors located on, in or under the phase two property,	• On-site human receptors, including construction workers, maintenance workers (a landscaper or grounds keeper), and property visitors (adult) could potentially be exposed to contaminants present at the Phase Two Property through soil direct contact (dermal contact and ingestion), vapour inhalation or particulate inhalation. • Potential ecological receptors include terrestrial mammals and avian species as well as soil invertebrates and plants. Mammals and birds could potentially be exposed to contaminants present at the Phase Two Property through soil or prey direct contact (dermal contact and ingestion), vapour inhalation or particulate inhalation. • The closest water body to the Phase Two Property is Sixteen Mile Creek located approximately 145 m southwest of the Phase Two Property. Therefore, aquatic receptors were not evaluated. • Refer to **Figure No.11**.
iv.	Receptor exposure points, and	• Exposure points include soil: direct contact and migration via dust or vapours. • Refer to **Figure No.11**.

Phase Two Conceptual Site Model Requirements	Description
v. Routes of exposure	• Routes of exposure include ingestion or plant uptake, dermal contact, and inhalation of particles or vapours. • Refer to **Figure No.11**.

5.11.1 Site Characteristics

5.11.1.1 Phase One ESA – Areas of Potential Environmental Concern

Stantec completed a Phase One Environmental Site Assessment (Phase One Environmental Site Assessment, 358 Reynolds Street, Oakville, Ontario), report dated August 10, 2021 (Stantec, 2021).

Four APECs associated with PCAs were identified at the Phase Two Property. These APECs were associated with current and historical PCAs on-site and off-site at the Phase Two Property. The locations of the identified APECs and associated PCAs at the Phase Two Property are shown on **Figure No.2**.

The Phase One ESA identified the following PCAs that were present at the Phase Two Property:

#	PCA	Location	Description
1	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	A former UST located immediately southeast of the building.
2	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	Fill materials used southeast of the building during the remediation of the area of the former UST.
3	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	Off-Site	Two former USTs located 15 m northeast of the Phase One Property at 327 Reynolds Street.
4	Application of salt/deicing compounds in parking lot (PCA number not applicable)	On-Site	The on-site building is surrounded by asphalt which includes paved parking surfaces. De-icing compounds have been applied to parking surfaces for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

Following consideration of the identified PCAs, four APECs were identified at the Phase Two Property. The APECs were associated with current or historical on-site and off-site PCAs. The locations of the identified APECs are shown on **Figure No.2.** The APECs included:

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern[1]	Media Potentially Impacted
1	Immediately Southwest of Phase Two Building	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	• PHCs • BTEX	Soil Ground Water
2	Area South of the Building on the Phase Two Property	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	• PHCs • BTEX • PAHs • Metals • As, Sb, Se • Hg • Cr(VI) • B-HWS • EC • SAR • CN-	Soil Ground Water
3	Northern Boundary of the Phase Two Property	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28) PCA Associated with Hazardous Waste Generation	Off-Site	• PHCs • BTEX	Soil Ground Water
4[2]	Parking area of the Phase Two Property	Not Applicable (application of salt/deicing compounds in parking lot)[2]	On-Site	• EC • SAR • Sodium • Chloride	Soil Ground water

Note(s):

[1] Contaminants include petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), various metals listed above, boron – hot water soluble (B-HWS), electrical conductivity (EC), sodium absorption ratio (SAR), and free cyanide (CN-).

[2] As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of this APEC for the above-noted contaminants of potential concern is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds to the parking surfaces at the Phase One Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The Phase One ESA did not identify any other off-site PCAs or on-site PCAs that may have contributed to an APEC on the Phase Two Property.

5.11.1.2 Phase Two ESA

The current Phase Two ESA recovered soil and/or ground water samples from locations within the vicinity of a former oil UST (APEC 1), unknown fill quality in the former UST excavation (APEC 2) and along the northern boundary of the Phase Two Property (APEC 3). Additional investigations were completed adjacent to and within APEC 1 and APEC 2 to delineate soil contamination from mercury identified under the basement floor in the south portion of the building, and to identify soil contamination from PHC F2 and PHC F3 immediately south of the building in the former UST excavation.

At the time of issuing the current Phase Two ESA report, the site building was present at the Phase Two Property. The former UST (APEC 1) had been removed and associated impacted soils were reported to be removed, and the area was backfilled with fill of unknown environmental quality (APEC 2) prior to the advancement of the Phase Two ESA boreholes, monitoring wells and test pits.

AiMS Environmental provided a factual report dated March 2, 2013 documenting the removal of an UST and the remediation of petroleum hydrocarbon (PHC) impacted soils and groundwater at the Phase Two Property. The 4,500 litre (L) (1,000-gallon) heating oil UST was removed on December 12 and 13, 2012, by Val Environmental Inc., according to the TSSA protocol. A total of 170.31 tonnes of contaminated soils from the initial excavation were shipped off-site for disposal. Twenty-six soil samples were collected from the initial excavation, one of which (depth of 3 m BGS) had a concentration of PHC F2 that exceeded the applicable criteria. AiMS Environmental returned to the Phase One Property on December 18, 2012 to widen the excavation to remove the soil with the identified exceedance. The maximum depth of excavation was 3.7 m BGS. Boreholes and a test pit were advanced to a maximum depth of 4.1 m BGS during the Stantec Phase Two ESA to investigate the 2012 UST excavation area (APEC 2) as presented on **Figure Nos. 2** through **6**.

The known underground utility services present on the Phase Two Property included bell, electrical and gas lines as well as a vent pipe on the southwestern portion of the site building, as presented on **Figure Nos. 2** and **3**.

Soil COCs were limited to mercury at the Phase Two Property under the southern corner of the basement at the site building, and PHC F2 and PHC F3 immediately south of the building within the historical UST remediation area. Given the nature and location of these soil COCs, the presence of subsurface infrastructure (current or historical) is not thought to have impacted the migration or distribution of contaminants. Underground utilities (disconnected) associated with the Medical Arts Building are located south of the building at the Phase Two Property. The presence of these utilities is not likely to provide a significant preferential contaminant migration pathway as the surrounding soils at the Site are of similar coarse texture to the expected backfill for the utilities.

Since no COCs were identified in ground water, the underground utility placement is not anticipated to significantly affect contamination distribution transport through ground water.

5.11.1.3 Stratigraphy, Soil Characteristics, and Soil Management

The following summary of information on stratigraphy, soil characteristics and soil management is provided:

- In general, overburden at the Phase Two Property, with increasing depth, consisted of sand with silt and/or gravel/silt with some sand/silty gravel/silty sand fill up to 3.7 m BGS (maximum depth of fill observed in MW20-3, in the area of the former UST) overlying a native sand to silty and sandy gravel, which was overlaying a silt till to the maximum depth investigated of approximately 4.1 m BGS. Bedrock was not encountered during the Phase Two ESA, however competent shale bedrock was encountered at a depth of 4.0 m BGS at the base of the current remedial excavation for PHCs. Interpreted stratigraphic cross-sections are presented on **Figure Nos. 7, 8, 9,** and **10**.

- The representative soil texture at the Site is considered coarse grained in accordance with O.Reg.153/04 (as amended). The predominant coarse grain size was assumed to be more than 75 microns (μm) in diameter for more than 2/3 of soil by volume.

- Fill soil is known to have been imported to the Phase Two Property during removal of a previous UST south of the building (APEC 2). Details of soil brought to the Phase Two Property as part of the current remediation program are presented in **Appendix C**.

5.11.2 Hydrogeologic Characteristics

The following summary of the hydrogeologic characteristics of the Phase Two Property is provided:

- Ground water depths on January 23, 2020 ranged from 2.48 m to 2.66 m BGS, with ground water elevations ranging from 97.26 m RTD to 97.53 m RTD. The depth to ground water on January 30, 2020 ranged from 2.50 m to 2.76 m BGS, with ground water elevations ranging from 97.29 to 97.61 m RTD. Note that the water level recorded at MW20-5 in January was considered anomalous and was not considered in the determination of flow path. At the time of monitoring in January 2020, ground water flow direction was generally toward the east with a southward/southeastward component in the central portion of the Site (**Figure No. 3a**).

- Ground water depths in April 2020 were only measured for the wells in the interior southern corner of the site building. The depth to ground water on April 16 and April 30, 2020 ranged from 2.62 to 2.73 m BGS, with ground water elevations ranging from 97.27 m RTD to 97.35 m RTD. At the time of monitoring in April 2020, ground water flow in the vicinity of the wells in the southern interior corner of the site building was generally toward the east (**Figure No. 3b**).

- Regional surface drainage in the area of the Phase Two Property was inferred to be southerly/southwesterly towards Sixteen Mile Creek, located approximately 145 m southwest of the Phase Two Property at the time of the Phase One ESA.

- The horizontal hydraulic gradient measured at the Phase Two Property was calculated to be approximately 0.01 m/m in shallow ground water. It is important to note that the ground water

elevations from April 2020 are from the southern corner of the site building on the Phase Two Property, therefore the gradient calculated for April 2020 is reflective of the gradient within this portion of the Phase Two Property. Vertical hydraulic gradient was not calculated since no nested monitoring wells (i.e., monitoring wells that are screened in two separate water bearing zones) were required at the Site.

5.11.3 Soil Characterization

- **Figure No. 4** presents the soil contaminant distribution and extent of horizontal soil impacts at the Phase Two Property. **Figure Nos. 7** and **8** present the vertical distribution of contaminants in soil at the Phase Two Property.
- Soil COCs include the following:
    - Mercury
    - PHC F2
    - PHC F3.
- Concentrations of mercury in soil greater than the Table 2 SCS were isolated to under the basement floor in the southern portion of the site building, within the vicinity of MW20-05.
- It is the QPESA's opinion that the identified soil impacts noted above are associated with a single limited release of a material containing mercury generated by the former medical office operation on-site. Given the nature and location of these soil COCs, the presence of subsurface infrastructure (current or historical) is not thought to be a preferential migration pathway of distribution of contaminants.
- Concentrations of PHC F2 and PHC F3 in soil greater than the Table 2 SCS were identified within the north section of the previous UST excavation area south of the site building within the vicinity of TP21-2.
- It is the QPESA's opinion that the identified soil impacts noted above are associated with residual PHCs not removed during the remediation of the historical UST leak. Given the nature and location of these soil COCs, the presence of subsurface infrastructure (current or historical) is not thought to be a preferential migration pathway of distribution of contaminants.

5.11.4 Ground Water Characterization

- No COCs were identified in ground water.

5.11.5 Vapour Intrusion Considerations – Future Development

The current building is unoccupied, not operational (no connected heating, ventilation or air conditioning or other utilities present), and slated for future demolition. The future building configuration is unknown. At the concentrations of mercury found during the Phase Two ESA, minimal to no vapours were expected to

be released by the mercury COC in the soil. Additionally, impacted soils were removed from the Phase Two Property, as described in **Appendix B**. Therefore, vapour intrusion from mercury is not considered to be a concern at the Phase Two Property.

Potential vapours released by the PHC F2 and PHC F3 COCs in the soil were considered however the current building is unoccupied, not operational (no connected heating, ventilation or air conditioning present), and slated for future demolition. The future building configuration is unknown. Additionally, impacted soils were removed from the Phase Two Property, as described in **Appendix B**. Therefore, vapour intrusion from PHC F2 and PHC F3 is not considered to be a concern at the Phase Two Property.

5.11.6 Contaminant Pathways and Receptors

- A pictorial diagram illustrating the Phase Two CSM is present on **Figure No.11.**
- The release mechanism for mercury in soil is the disturbance of soils under the building in the area of impact. The release mechanism for PHC F2 and PHC F3 in soil is through vapour migration or soil disturbance in the area of the former UST.
- The contaminant transport pathways include soil ingestion, inhalation of particulate or vapours, and dermal contact.
- On-site human receptors, including construction workers, maintenance workers (a landscaper or grounds keeper), and property visitors (adults only) could potentially be exposed to contaminants present at the Phase Two Property through soil direct contact (dermal contact and ingestion), and particulate or vapour inhalation.
- Potential ecological receptors include terrestrial mammals and avian species as well as soil invertebrates and plants. The nearest water body to the Phase Two Property is Sixteen Mile Creek, which is located approximately 145 m southwest of the Phase Two Property. Therefore, aquatic receptors were not evaluated.
- Receptor exposure points include direct contact with soil and migration via dust. Routes of exposure include ingestion, dermal contact, and inhalation.
- If direct receptor contact with ground water occurs, there are no identified COCs present in ground water. Ground water is not used as a source of drinking water at the Phase Two Property.

6.0 CONCLUSIONS

At the request of the Client, Stantec conducted a Phase Two ESA on 358 Reynolds Street (the Site or Phase Two Property) in Oakville, Ontario. The Phase Two ESA was conducted to characterize soil and ground water at APECs identified in a Phase One ESA that resulted from a total of four identified on- and off-site PCAs. One APEC was not investigated as the PCA was associated with the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both (exempt under O.Reg.153/04). The Phase Two ESA was conducted in support of an RSC with the MECP and in accordance with O.Reg.153/04. Stantec understands that the filing of the RSC is required by the MECP because the current land use is commercial, and the future land use is anticipated to be residential and community, which is considered a more sensitive land use.

The Phase Two ESA investigated the APECs identified in a previously completed Phase One ESA, through the characterization of soil and ground water at the Phase Two Property. The Phase Two ESA included the advancement of boreholes, installation of monitoring wells, excavation of test pits, and a soil and ground water sampling program. Soil and ground water samples were collected for analysis of one or more of BTEX, VOCs, PHCs, PAHs, metals, As, Sb, Se, Hg, Cr(VI), B-HWS, EC, SAR, sodium, chloride and CN-.

Associated with APEC 4, as per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of sodium, chloride, EC and SAR was not considered warranted during the Phase Two ESA due to the application of salt/deicing compounds to the parking surfaces at the Phase Two Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both. Therefore, EC and SAR were not considered COPCs in soil, and sodium and chloride were not considered COPCs in ground water, for the Phase Two Property. Concentrations of these parameters, if measured during laboratory analysis of soil and ground water samples, were deemed to not exceed the applicable site condition standard for the purpose of Part XV.1 of the Act.

Stantec offers the following conclusions with respect to the results of the Phase Two ESA:

- The MECP (2011) Table 2 SCS for residential/parkland/institutional land use in a potable ground water condition with coarse textured soils were considered the standards applicable at the Phase Two Property.
- In general, overburden at the Phase Two Property, with increasing depth, generally consisted of sand, silt and gravel fill (up to 3.7 m BGS, overlying sand to silty and sandy gravel, which overlies a silt till to the maximum depth investigated (4.1 m BGS).
- Bedrock was not encountered during investigations by Stantec to the maximum investigated depth of approximately 4.1 m BGS, however competent shale bedrock was encountered at a depth of 4.0 m BGS at the base of the current remedial excavation for PHCs.
- Ground water was encountered in the monitoring wells between 2.48 m BGS (at MW20-4 on January 23, 2020) to 2.76 m BGS (at BH-2 on January 30, 2020) at the Phase Two Property. Ground water elevations in the monitoring wells ranged from approximately 97.26 m RTD (at MW20-2 on January 23, 2020) to 97.61 m RTD (at BH-2 on January 30, 2020). The depth to the water table at

MW20-5 in January 2020 was considered anomalous and was not considered in the determination of ground water flow direction and hydraulic gradient calculation.

- The horizontal hydraulic gradient across the Phase Two Property was estimated to be approximately 0.01 m/m. The vertical hydraulic gradient was not calculated, as only shallow monitoring wells were installed as part of the Phase Two ESA.
- Mercury, PHC F2 and PHC F3 were identified as the only COCs for soil.
- No COCs were identified for ground water.
- The results of the QA/QC procedures indicated that the DQOs for the soil and ground water data were met, and that the data were of acceptable quality and adequate for their intended use.

Based on the results of the Phase Two ESA, the MECP (2011) Table 2 SCS were not met at the Phase Two Property at the time of the assessment within APEC 1 and APEC 2. During the PHC remedial excavation, the vertical extent of PHC impacts in APEC 1 and APEC 2 was delineated from 2.9 m to 4.0 m BGS of soil, and lateral extents of PHC impacts in APEC 1 and APEC 2 were delineated, and have since been confirmed during a remedial excavation which removed the identified PHC impacted soil from the Phase Two Property (detailed in **Appendix B**). The vertical extent of mercury impacts was delineated under the southeast corner of the building between 1.6 and 3.4 m BGS of soil, and lateral extents of mercury in soil were delineated, and have since been confirmed during a remedial excavation which removed the identified mercury impacted soil from the Phase Two Property (detailed in **Appendix B**).

6.1 SIGNATURES

This document entitled Phase Two Environmental Site Assessment 358 Reynolds Street, Oakville, Ontario was prepared by Stantec Consulting Ltd. (Stantec) for Transmetro Limited (the Client). This document was prepared by Leslie Egan, M.A.Sc., E.I.T. Quality review was completed by Randy Sinukoff, M.A.Sc., P.Eng., QP_{ESA}.

All of which is respectfully submitted,

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6.2 LIMITATIONS

This report documents work that was performed in accordance with generally accepted professional standards at the time and location in which the services were provided. No other representations, warranties or guarantees are made concerning the accuracy or completeness of the data or conclusions contained within this report, including no assurance that this work has uncovered all potential liabilities associated with the identified property.

This report provides an evaluation of selected environmental conditions associated with the identified portion of the property that was assessed at the time the work was conducted and is based on information obtained by and/or provided to Stantec at that time. There are no assurances regarding the accuracy and completeness of this information. All information received from the client or third parties in the preparation of this report has been assumed by Stantec to be correct. Stantec assumes no responsibility for any deficiency or inaccuracy in information received from others.

The opinions in this report can only be relied upon as they relate to the condition of the portion of the identified property that was assessed at the time the work was conducted. Activities at the property subsequent to Stantec's assessment may have significantly altered the property's condition. Stantec cannot comment on other areas of the property that were not assessed.

Conclusions made within this report consist of Stantec's professional opinion as of the time of the writing of this report and are based solely on the scope of work described in the report, the limited data available and the results of the work. They are not a certification of the property's environmental condition. This report should not be construed as legal advice.

This report has been prepared for the exclusive use of the client identified herein and any use by any third party is prohibited. Stantec assumes no responsibility for losses, damages, liabilities or claims, howsoever arising, from third party use of this report.

The locations of any utilities, buildings and structures, and property boundaries illustrated in or described within this report, if any, including pole lines, conduits, water mains, sewers and other surface or sub-surface utilities and structures are not guaranteed. Before starting work, the exact location of all such utilities and structures should be confirmed and Stantec assumes no liability for damage to them.

The conclusions are based on the site conditions encountered by Stantec at the time the work was performed at the specific testing and/or sampling locations, and conditions may vary among sampling locations. Factors such as areas of potential concern identified in previous studies, site conditions (e.g., utilities) and cost may have constrained the sampling locations used in this assessment. In addition, analysis has been carried out for only a limited number of chemical parameters, and it should not be inferred that other chemical species are not present. Due to the nature of the investigation and the limited data available, Stantec does not warrant against undiscovered environmental liabilities nor that the sampling results are indicative of the condition of the entire site. As the purpose of this report is to identify site conditions which may pose an environmental risk; the identification of non-environmental risks to structures or people on the site is beyond the scope of this assessment.

Conclusions
October 25, 2021

Should additional information become available which differs significantly from our understanding of conditions presented in this report, Stantec specifically disclaims any responsibility to update the conclusions in this report.

7.0 REFERENCES

Bureau Veritas Canada, 2020. *Sample Container, Preservation, and Hold Time Information*.

Carman (1937). *Fluid flow through granular beds. Transactions of the Institution of Chemical Engineers (15): 150-166.*

Domenico, P.A. and F.W. Schwartz, 1990. *Physical and Chemical Hydrogeology*, John Wiley & Sons, New York, 824 p.

Environment Canada, *Canadian Climate Normals 1981-2010 Station Data* website. Reviewed December 3, 2020.

Freeze, A. and Cherry, J. A., 1979. *Groundwater*, Prentice Hall, Englewood Cliffs, New Jersey.

Kozeny (1927). *Ueber kapillare Leitung des Wassers im Boden. Sitzungsber Akad Wiss Wien 136(2a):271,*

Ontario Ministry of the Environment, 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. Ministry of Environment and Energy*. December 1996.

Ontario (2011). *Ontario Regulation 153/04 Records Of Site Condition — Part XV.1 of the Environmental Protection Act.*

Ontario Ministry of the Environment (MOE), 2011a. *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.* April 15, 2011.

Ontario Ministry of the Environment (MOE), 2011b. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.* March 9, 2004, amended as of July 1, 2011.

Ontario Geological Survey, 1991. *Quaternary Geology of Ontario, Southern Sheet; Map 2556*, Scale 1:1,000,000.

Ontario Geological Survey, 1991. *Bedrock Geology of Ontario, Southern Sheet; Map 2544*, Scale 1:1,000,000.

Stantec Consulting Ltd., 2021. *Final Report: Phase One Environmental Site Assessment,* 358 Reynolds Street, Oakville, ON, report dated August 10, 2021.

United States Environmental Protection Agency (EPA), 1996. 540/S095-504 *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures*, April 1996.

TABLES

Table 1
Monitoring Well Installation Details
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Monitoring Location	Ground Surface Elevation (m RTD)	Top of Pipe Elevation (m RTD)	Well Stickup (m from GS)	Well Depth (m BGS)	Well Diameter (m)	Top of Screen		Bottom of Screen		Top of Sand Pack		Bottom of Sand Pack		Protective Casing
						(m BGS)	(m AMSL)	(m BGS)	(m AMSL)	(m BGS)	(m AMSL)	(m BGS)	(m AMSL)	
MW20-01	99.99	99.82	0.17	3.66	0.05	0.91	99.08	3.66	96.33	0.61	99.38	3.66	96.33	FM
MW20-02	99.81	99.66	0.14	4.11	0.05	1.07	98.74	4.11	95.70	0.76	99.05	4.11	95.70	FM
MW20-03	99.97	99.82	0.15	4.11	0.05	1.07	98.90	4.11	95.86	0.76	99.21	4.11	95.86	FM
MW20-04	100.01	99.87	0.14	4.11	0.05	1.07	98.94	4.11	95.90	0.76	99.25	4.11	95.90	FM
MW20-05	99.01	98.93	0.08	3.05	0.05	0.91	98.10	3.05	95.96	0.61	98.40	3.05	95.96	FM
MW20-06	99.01	98.92	0.09	3.05	0.05	0.91	98.10	3.05	95.96	0.61	98.40	3.05	95.96	FM
MW20-07	99.00	98.97	0.03	3.05	0.05	0.91	98.09	3.05	95.95	0.61	98.39	3.05	95.95	FM
MW20-08	98.98	98.89	0.09	3.05	0.05	0.91	98.07	3.05	95.93	0.61	98.37	3.05	95.93	FM

Notes:

SU	Stickup
m RTD	Metres relative to datum
m BGS	Metres below ground surface
m	Metres
GS	Ground surface
FM	Flushmount

Table 2
Summary of Ground Water Monitoring Data
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Montoring Location	Monitoring Date	Ground Surface Elevation (m RTD)	Top of Pipe Elevation (m RTD)	Water Level Elevation (m RTD)	Water Level Depth (m BTOP)	Water Level Depth (m BGS)	Liquid-Phase Petroleum Hydrocarbon Apparent Thickness (mm)	Well Headspace Combustible Vapour Concentration (ppm_v) (Unless Otherwise Noted)	Well Headspace Total Organic Vapour Concentration (ppm_v)
MW20-1	23-Jan-20	99.99	99.82	97.33	2.49	2.66	0	< 5	< 0.02
MW20-2	23-Jan-20	99.81	99.66	97.26	2.40	2.55	0	< 5	< 0.02
MW20-3	23-Jan-20	99.97	99.82	97.36	2.46	2.61	0	< 5	1
MW20-4	23-Jan-20	100.01	99.87	97.53	2.34	2.48	0	< 5	< 0.02
MW20-5	23-Jan-20	99.01	98.93	NM	NM	NM	NM	NM	NM
BH-2	30-Jan-20	100.36	99.95	97.61	2.34	2.76	0	< 5	1
MW20-1	30-Jan-20	99.99	99.82	97.35	2.47	2.64	0	< 5	< 0.02
MW20-2	30-Jan-20	99.81	99.66	97.29	2.37	2.52	0	< 5	< 0.02
MW20-3	30-Jan-20	99.97	99.82	97.47	2.35	2.50	0	< 5	1
MW20-4	30-Jan-20	100.01	99.87	97.51	2.37	2.50	0	< 5	< 0.02
MW20-5	30-Jan-20	99.01	98.93	97.38	1.55	2.62	0	< 5	< 0.02
MW-3	30-Jan-20	100.00	99.93	97.50	2.43	2.50	0	< 5	1
MW20-5	16-Apr-20	99.01	98.93	97.31	1.62	2.69	0	NM	NM
MW20-6	16-Apr-20	99.01	98.92	97.31	1.61	2.69	0	NM	NM
MW20-7	16-Apr-20	99.00	98.97	97.34	1.63	2.65	0	NM	NM
MW20-8	16-Apr-20	98.98	98.89	97.35	1.54	2.62	0	NM	NM
MW20-5	30-Apr-20	99.01	98.93	97.27	1.66	2.73	0	NM	NM
MW20-6	30-Apr-20	99.01	98.92	97.27	1.65	2.73	0	NM	NM
MW20-7	30-Apr-20	99.00	98.97	97.30	1.67	2.69	0	NM	NM
MW20-8	30-Apr-20	98.98	98.89	97.31	1.58	2.66	0	NM	NM

Notes:

m RTD	Metres relative to datum
m BGS	Metres below ground surface
m BTOP	Metres below top of pipe
mm	Millimetres
ppm_v	All units in parts per million by volume unless otherwise noted
NM	Not monitored

Note that the difference in grade between the ground surface and basement floor is 0.99 m.

Table 3a
Summary of Soil Analytical Results: Monitoring Wells
358 Reynolds Street, Oakville, Ontario Transmetro
Limited

Sample Location			MW20-1	MW20-2	MW20-3	MW20-4			MW20-5				MW20-6		MW20-7				MW20-8	
Sample Date			22-Jan-20	22-Jan-20	22-Jan-20	22-Jan-20	22-Jan-20		23-Jan-20	23-Jan-20	23-Jan-20	23-Jan-20	3-Apr-20	3-Apr-20	3-Apr-20	3-Apr-20	3-Apr-20		3-Apr-20	3-Apr-20
Sample ID			MW20-1-3	MW20-2-1	MW20-3-2	MW20-4-3	QC-01		MW20-5-1	MW20-5-2	MW20-5-3	MW20-5-4	MW20-6-2	MW20-6-4	MW20-7-2	MW20-7-4	QC-02		MW20-8-2	MW20-8-4
Sample Depth			2.4 - 3 m	0 - 0.8 m	1.5 - 2.4 m	3 - 3.7 m	3 - 3.7 m		1 - 1.6 m	1.6 - 2.8 m	2.8 - 3.4 m	3.4 - 4 m	1.6 - 2.2 m	2.8 - 3.4 m	1.6 - 2.2 m	2.8 - 3.4 m	2.8 - 3.4 m		1.6 - 2.2 m	2.8 - 3.4 m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC
Laboratory			BV	BV	BV	BV	BV		BV	BV	BV	BV	BV	BV	BV	BV	BV		BV	BV
Laboratory Work Order			C022735	C022735	C022735	C022735	C022735		C033874	C022735	C033874	C022735	C086319	C086319	C086319	C086319	C086319		C086319	C086319
Laboratory Sample ID			LWF072	LWF076	LWF078	LWF080	LWF084		LYO752	LWF082	LYO753	LWF083	MJS606	MJS608	MJS611	MJS613	MJS658		MJS653	MJS655
Sample Type	Units	Ontario SCS					Field Duplicate	RPD (%)									Field Duplicate	RPD (%)		
General Chemistry																				
Available (CaCl2) pH	S.U.	5-9/5-11$_{s12}$[A]	-	7.89	7.63	7.71	7.70	nc	7.79	8.62	7.89	7.54	-	-	-	-	-	-	-	-
Cyanide (Free)	µg/g	0.051[A]	-	-	<0.01	<0.01	<0.01	nc	<0.01	<0.01	<0.01	<0.01	-	-	-	-	-	-	-	-
Electrical Conductivity, Lab	mS/cm	0.7[A]	-	-	**1.6**[A]	0.64	0.63	2%	0.26	0.67	0.63	0.54	-	-	-	-	-	-	-	-
Moisture Content	%	n/v	13	10	18	20	17	16%	9.8	16	21	19	-	-	-	-	-	-	-	-
Sodium Adsorption Ratio (SAR)	none	5[A]	-	-	**38**[A]	**6.7**[A]	**6.3**[A]	nc	1.2	0.87	2.6	**6.5**[A]	-	-	-	-	-	-	-	-
BTEX and Petroleum Hydrocarbons																				
Benzene	µg/g	0.21[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	-	<0.020	-	-	-	-	-	-	-	-	-	-
Toluene	µg/g	2.3[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	-	<0.020	-	-	-	-	-	-	-	-	-	-
Ethylbenzene	µg/g	1.1[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	-	<0.020	-	-	-	-	-	-	-	-	-	-
Xylenes, Total	µg/g	3.1$_{s1}$[A]	<0.020	<0.020	<0.040	<0.040	<0.040	nc	-	0.052	-	-	-	-	-	-	-	-	-	-
PHC F1 (C6-C10 range) minus BTEX	µg/g	55$_{s7}$[A]	<10	<10	<10	<10	<10	nc	-	<10	-	-	-	-	-	-	-	-	-	-
PHC F2 (>C10-C16 range)	µg/g	98$_{s15}$[A]	<10	<10	<10	<10	<10	nc	-	<10	-	-	-	-	-	-	-	-	-	-
PHC F3 (>C16-C34 range)	µg/g	300$_{s8}$[A]	<50	<50	<50	<50	<50	nc	-	<50	-	-	-	-	-	-	-	-	-	-
PHC F4 (>C34-C50 range)	µg/g	2,800$_{s10}$[A]	<50	<50	<50	<50	<50	nc	-	<50	-	-	-	-	-	-	-	-	-	-
Chromatogram to baseline at C50	none	n/v	YES	YES	YES	YES	YES	nc	-	YES	-	-	-	-	-	-	-	-	-	-
Metals																				
Aluminum	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	3,600	3,200	3,800	3,600	3,100	15%	3,100	3,100
Antimony	µg/g	7.5[A]	-	-	<0.20	<0.20	<0.20	nc	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20
Arsenic	µg/g	18[A]	-	-	7.1	2.7	2.9	nc	4.2	1.2	2.3	3.5	2.0	1.8	2.8	1.7	1.4	nc	1.4	2.2
Barium	µg/g	390[A]	-	-	50	25	30	18%	35	22	18	32	16	15	14	9.8	9.6	2%	14	10
Beryllium	µg/g	4[A]	-	-	0.54	0.30	0.35	nc	0.28	0.25	0.23	0.36	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20
Bismuth	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	nc	<1.0	<1.0
Boron	µg/g	120$_{s16}$[A]	-	-	8.2	5.8	6.1	nc	<5.0	<5.0	<5.0	6.6	<5.0	<5.0	<5.0	<5.0	<5.0	nc	<5.0	<5.0
Boron (Available)	µg/g	1.5$_{s16}$[A]	-	-	0.11	0.051	0.052	nc	0.62	0.41	0.21	0.10	-	-	-	-	-	-	-	-
Cadmium	µg/g	1.2[A]	-	-	0.12	<0.10	<0.10	nc	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	nc	<0.10	<0.10
Calcium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	2,600	58,000	2,300	42,000	49,000	15%	1,800	73,000
Chromium	µg/g	160[A]	-	-	17	9.0	10	11%	11	9.8	8.9	11	7.6	4.9	8.1	6.1	5.4	12%	5.4	5.4
Chromium (Hexavalent)	µg/g	8[A]	-	-	<0.2	<0.2	<0.2	nc	<0.2	<0.2	<0.2	<0.2	-	-	-	-	-	-	-	-
Cobalt	µg/g	22[A]	-	-	12	5.4	6.5	18%	3.5	2.7	4.0	6.3	2.7	2.9	3.2	2.9	2.8	4%	2.4	2.8
Copper	µg/g	140[A]	-	-	41	17	17	0%	15	11	16	16	9.3	13	9.9	15	13	14%	6.0	14
Iron	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	11,000	7,700	15,000	8,800	8,000	10%	7,000	8,500
Lead	µg/g	120[A]	-	-	11	5.0	5.8	15%	20	4.6	6.0	5.8	3.7	3.2	3.6	3.4	3.2	nc	2.4	4.1
Lithium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	3.6	5.8	3.3	5.7	5.2	9%	3.6	5.2
Magnesium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	1,000	2,000	930	1,900	1,800	5%	880	2,100
Manganese	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	65	310	76	210	220	5%	54	330
Mercury	µg/g	0.27[A]	-	-	<0.050	<0.050	<0.050	nc	0.086	**1.1**[A]	**2.4**[A]	0.064	<0.050	<0.050	<0.050	<0.050	<0.050	nc	<0.050	<0.050
Molybdenum	µg/g	6.9[A]	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	0.68	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	nc	<0.50	<0.50
Nickel	µg/g	100[A]	-	-	24	11	13	17%	7.2	5.5	7.4	13	6.4	5.6	5.8	5.7	5.2	9%	5.1	5.1
Phosphorus	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	730	310	710	530	490	8%	520	440
Potassium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	450	650	500	660	550	nc	430	630
Selenium	µg/g	2.4[A]	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	nc	<0.50	<0.50
Silver	µg/g	20[A]	-	-	<0.20	<0.20	<0.20	nc	<0.20	0.66	1.1	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	<0.20
Sodium	µg/g	n/a[A]	-	-	-	-	-	-	-	-	-	-	95	170	81	250	210	nc	110	160
Strontium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	9.8	91	9.8	70	80	13%	7.8	110
Thallium	µg/g	1[A]	-	-	0.11	0.054	0.061	nc	0.060	<0.050	<0.050	0.052	<0.050	<0.050	<0.050	<0.050	<0.050	nc	<0.050	<0.050
Tin	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	nc	<1.0	<1.0
Titanium	µg/g	n/v	-	-	-	-	-	-	-	-	-	-	290	75	270	120	110	9%	200	160
Uranium	µg/g	23[A]	-	-	0.54	0.36	0.40	11%	0.36	0.53	0.36	0.33	0.33	0.21	0.35	0.26	0.25	4%	0.26	0.28
Vanadium	µg/g	86[A]	-	-	28	16	18	nc	24	20	14	16	16	8.6	21	11	9.8	nc	10	12
Zinc	µg/g	340[A]	-	-	57	27	33	20%	30	14	20	32	12	15	13	15	15	nc	9.3	14
Polycyclic Aromatic Hydrocarbons																				
Acenaphthene	µg/g	7.9[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/g	0.15[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/g	0.67[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	µg/g	0.5[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/g	0.3[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	µg/g	0.78$_{s2}$[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/g	6.6[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/g	0.78[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/g	7[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/g	0.1[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/g	0.69[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/g	62[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/g	0.38[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene (Total)	µg/g	0.99$_{s3}$[A]	-	-	<0.0071	<0.0071	<0.0071	nc	-	<0.0071	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 1-	µg/g	$_{s3}$[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 2-	µg/g	$_{s3}$[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/g	0.6[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/g	6.2[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/g	78[A]	-	-	<0.0050	<0.0050	<0.0050	nc	-	<0.0050	-	-	-	-	-	-	-	-	-	-

See notes on last page

Table 3a
Summary of Soil Analytical Results: Monitoring Wells
358 Reynolds Street, Oakville, Ontario Transmetro Limited

Sample Location			MW20-1	MW20-2	MW20-3	MW20-4			MW20-5				MW20-6		MW20-7				MW20-8	
Sample Date			22-Jan-20	22-Jan-20	22-Jan-20	22-Jan-20	22-Jan-20		23-Jan-20	23-Jan-20	23-Jan-20	23-Jan-20	3-Apr-20	3-Apr-20	3-Apr-20	3-Apr-20	3-Apr-20		3-Apr-20	3-Apr-20
Sample ID			MW20-1-3	MW20-2-1	MW20-3-2	MW20-4-3	QC-01		MW20-5-1	MW20-5-2	MW20-5-3	MW20-5-4	MW20-6-2	MW20-6-4	MW20-7-2	MW20-7-4	QC-02		MW20-8-2	MW20-8-4
Sample Depth			2.4 - 3 m	0 - 0.8 m	1.5 - 2.4 m	3 - 3.7 m	3 - 3.7 m		1 - 1.6 m	1.6 - 2.8 m	2.8 - 3.4 m	3.4 - 4 m	1.6 - 2.2 m	2.8 - 3.4 m	1.6 - 2.2 m	2.8 - 3.4 m	2.8 - 3.4 m		1.6 - 2.2 m	2.8 - 3.4 m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC
Laboratory			BV	BV	BV	BV	BV		BV	BV	BV	BV	BV	BV	BV	BV	BV		BV	BV
Laboratory Work Order			C022735	C022735	C022735	C022735	C022735		C033874	C022735	C033874	C022735	C086319	C086319	C086319	C086319	C086319		C086319	C086319
Laboratory Sample ID			LWF072	LWF076	LWF078	LWF080	LWF084		LYO752	LWF082	LYO753	LWF083	MJS606	MJS608	MJS611	MJS613	MJS658		MJS653	MJS655
Sample Type	Units	Ontario SCS					Field Duplicate	RPD (%)									Field Duplicate	RPD (%)		
Volatile Organic Compounds																				
Acetone	µg/g	16[A]	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromodichloromethane	µg/g	1.5[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromoform (Tribromomethane)	µg/g	0.27[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Carbon Tetrachloride (Tetrachloromethane)	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chlorobenzene (Monochlorobenzene)	µg/g	2.4[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibromochloromethane	µg/g	2.3[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	µg/g	1.2[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,3-	µg/g	4.8[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,4-	µg/g	0.083[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichlorodifluoromethane (Freon 12)	µg/g	16[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	µg/g	0.47[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethane, 1,2-	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, 1,1-	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, cis-1,2-	µg/g	1.9[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloroethene, trans-1,2-	µg/g	0.084[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropane, 1,2-	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- (sum of isomers cis + trans)	µg/g	0.05_{s11}[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	µg/g	[A]$_{s11}$	<0.030	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dichloropropene, trans-1,3-	µg/g	[A]$_{s11}$	<0.040	<0.040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hexane (n-Hexane)	µg/g	2.8[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/g	16[A]	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl Isobutyl Ketone (MIBK)	µg/g	1.7[A]	<0.50	<0.50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	µg/g	0.75[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylene Chloride (Dichloromethane)	µg/g	0.1[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Styrene	µg/g	0.7[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	µg/g	0.058[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,2,2-	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	µg/g	0.28[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,1-	µg/g	0.38[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethane, 1,1,2-	µg/g	0.05[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichloroethene (TCE)	µg/g	0.061[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Trichlorofluoromethane (Freon 11)	µg/g	4[A]	<0.050	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Vinyl Chloride	µg/g	0.02[A]	<0.020	<0.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
[A]	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
n/a	Not applicable.
s1	Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
s2	Standard is for benzo(b)fluoranthene; however, the analytical laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene, and therefore, the result is a combination of the two isomers, against which the standard has been compared.
s3	Standard is applicable to both 1-methylnaphthalene and 2-methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
s7	Standard is applicable to PHC in the F1 range minus BTEX.
s8	Standard is applicable to PHC in the F3 range, minus PAHs (other than naphthalene). If PAHs were not analyzed, the standard is applied to F3.
s10	If baseline is not reached during F4 analysis, then gravimetric analysis is to be performed, and the standard is applied to the higher of the two results.
s11	Standard is applicable to 1,3-Dichloropropene, and the individual isomers (cis + trans) should be added for comparison.
s12	The criteria for pH in surface soils (0 to 1.5 m) is 5 - 9, whereas the criteria for pH in sub-surface soils (> 1.5 m depth) is 5 - 11.
s15	Standard is applicable to PHC in the F2 range minus naphthalene. If naphthalene was not analyzed, the standard is applied to F2.
s16	For surface soil, the boron standard is for hot water soluble extract. For subsurface soil, the standard is for total boron (mixed strong acid digest), as ecological criteria are not considered.
RPD	Relative Percent Difference.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.
BTEX	Benzene, toluene, ethylbenzene, xylenes.
PHC F1 to F4	Petroleum hydrocarbons fractions 1 to 4.

Table 3b
Summary of Soil Analytical Results: Test Pits
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Sample Location			TP20-01		TP20-02	TP21-1		TP21-2		TP21-3
Sample Date			21-Oct-20	21-Oct-20	21-Oct-20	14-Apr-21	14-Apr-21	14-Apr-21	14-Apr-21	14-Apr-21
Sample ID			TP20-01-01	TP20-01-02	TP20-02-01	TP21-1-1	TP21-1-2	TP21-2-1	TP21-2-2	TP21-3-1
Sample Depth			0 - 1 m BGS	1 - 2 m BGS	1 - 2 m BGS	2 - 2.3 m	2.9 - 3.2 m	2 - 2.3 m	2.9 - 3.2 m	2.4 - 2.7 m
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order			C0R6627	C0R6627	C0R6627	C198583	C198583	C198583	C198583	C198583
Laboratory Sample ID	Units	Ontario SCS	NYG276	NYG277	NYG278	PHX099	PHX100	PHX101	PHX102	PHX103
General Chemistry										
Available (CaCl2) pH	S.U.	5-9/5-11$_{s12}$[A]	-	-	-	-	-	-	-	7.64
Cyanide (Free)	µg/g	0.051[A]	-	-	-	-	-	-	-	<0.01
Electrical Conductivity, Lab	mS/cm	0.7[A]	-	-	-	-	-	-	-	**0.88[A]**
Moisture Content	%	n/v	-	-	-	-	-	-	21	16
Sodium Adsorption Ratio (SAR)	none	5[A]	-	-	-	-	-	-	-	**14[A]**
BTEX and Petroleum Hydrocarbons										
Benzene	µg/g	0.21[A]	-	-	-	-	-	-	<0.020	<0.020
Toluene	µg/g	2.3[A]	-	-	-	-	-	-	<0.020	<0.020
Ethylbenzene	µg/g	1.1[A]	-	-	-	-	-	-	<0.020	<0.020
Xylene, m & p-	µg/g	[A]$_{s1}$	-	-	-	-	-	-	<0.040	<0.020
Xylene, o-	µg/g	[A]$_{s1}$	-	-	-	-	-	-	<0.020	<0.020
Xylenes, Total	µg/g	3.1[A]$_{s1}$	-	-	-	-	-	-	<0.040	<0.020
PHC F1 (C6-C10 range)	µg/g	[A]$_{s7}$	-	-	-	-	-	-	<10	<10
PHC F1 (C6-C10 range) minus BTEX	µg/g	55[A]$_{s7}$	-	-	-	-	-	-	<10	<10
PHC F2 (>C10-C16 range)	µg/g	98[A]$_{s15}$	-	-	-	-	-	-	**2,200[A]**	<10
PHC F3 (>C16-C34 range)	µg/g	300[A]$_{s8}$	-	-	-	-	-	-	**1,500[A]**	<50
PHC F4 (>C34-C50 range)	µg/g	2,800[A]$_{s10}$	-	-	-	-	-	-	<50	<50
Chromatogram to baseline at C50	none	n/v	-	-	-	-	-	-	YES	YES
Metals										
Antimony	µg/g	7.5[A]	-	-	-	-	-	-	-	<0.20
Arsenic	µg/g	18[A]	-	-	-	-	-	-	-	3.6
Barium	µg/g	390[A]	-	-	-	-	-	-	-	24
Beryllium	µg/g	4[A]	-	-	-	-	-	-	-	0.35
Boron	µg/g	120[A]$_{s16}$	-	-	-	-	-	-	-	<5.0
Boron (Available)	µg/g	1.5[A]$_{s16}$	-	-	-	-	-	-	-	0.17
Cadmium	µg/g	1.2[A]	-	-	-	-	-	-	-	<0.10
Chromium	µg/g	160[A]	-	-	-	-	-	-	-	12
Chromium (Hexavalent)	µg/g	8[A]	-	-	-	-	-	-	-	0.22
Cobalt	µg/g	22[A]	-	-	-	-	-	-	-	4.2
Copper	µg/g	140[A]	-	-	-	-	-	-	-	17
Lead	µg/g	120[A]	-	-	-	-	-	-	-	7.5
Mercury	µg/g	0.27[A]	<0.050	<0.050	<0.050	0.11	<0.050	**0.81[A]**	0.13	<0.050
Molybdenum	µg/g	6.9[A]	-	-	-	-	-	-	-	<0.50
Nickel	µg/g	100[A]	-	-	-	-	-	-	-	9.3
Selenium	µg/g	2.4[A]	-	-	-	-	-	-	-	<0.50
Silver	µg/g	20[A]	-	-	-	-	-	-	-	<0.20
Thallium	µg/g	1[A]	-	-	-	-	-	-	-	<0.050
Uranium	µg/g	23[A]	-	-	-	-	-	-	-	0.35
Vanadium	µg/g	86[A]	-	-	-	-	-	-	-	27
Zinc	µg/g	340[A]	-	-	-	-	-	-	-	23
Polycyclic Aromatic Hydrocarbons										
Acenaphthene	µg/g	7.9[A]	-	-	-	-	-	-	-	<0.0050
Acenaphthylene	µg/g	0.15[A]	-	-	-	-	-	-	-	<0.0050
Anthracene	µg/g	0.67[A]	-	-	-	-	-	-	-	<0.0050
Benzo(a)anthracene	µg/g	0.5[A]	-	-	-	-	-	-	-	<0.0050
Benzo(a)pyrene	µg/g	0.3[A]	-	-	-	-	-	-	-	<0.0050
Benzo(b/j)fluoranthene	µg/g	0.78[A]$_{s2}$	-	-	-	-	-	-	-	<0.0050
Benzo(g,h,i)perylene	µg/g	6.6[A]	-	-	-	-	-	-	-	<0.0050
Benzo(k)fluoranthene	µg/g	0.78[A]	-	-	-	-	-	-	-	<0.0050
Chrysene	µg/g	7[A]	-	-	-	-	-	-	-	<0.0050
Dibenzo(a,h)anthracene	µg/g	0.1[A]	-	-	-	-	-	-	-	<0.0050
Fluoranthene	µg/g	0.69[A]	-	-	-	-	-	-	-	0.0061
Fluorene	µg/g	62[A]	-	-	-	-	-	-	-	<0.0050
Indeno(1,2,3-cd)pyrene	µg/g	0.38[A]	-	-	-	-	-	-	-	<0.0050
Methylnaphthalene (Total)	µg/g	0.99[A]$_{s3}$	-	-	-	-	-	-	-	<0.0071
Methylnaphthalene, 1-	µg/g	[A]$_{s3}$	-	-	-	-	-	-	-	<0.0050
Methylnaphthalene, 2-	µg/g	[A]$_{s3}$	-	-	-	-	-	-	-	<0.0050
Naphthalene	µg/g	0.6[A]	-	-	-	-	-	-	-	<0.0050
Phenanthrene	µg/g	6.2[A]	-	-	-	-	-	-	-	<0.0050
Pyrene	µg/g	78[A]	-	-	-	-	-	-	-	0.0064
Volatile Organic Compounds										
Acetone	µg/g	16[A]	-	-	-	-	-	-	-	<0.50
Bromodichloromethane	µg/g	1.5[A]	-	-	-	-	-	-	-	<0.050
Bromoform (Tribromomethane)	µg/g	0.27[A]	-	-	-	-	-	-	-	<0.050
Bromomethane (Methyl bromide)	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Carbon Tetrachloride (Tetrachloromethane)	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Chlorobenzene (Monochlorobenzene)	µg/g	2.4[A]	-	-	-	-	-	-	-	<0.050
Chloroform (Trichloromethane)	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Dibromochloromethane	µg/g	2.3[A]	-	-	-	-	-	-	-	<0.050
Dichlorobenzene, 1,2-	µg/g	1.2[A]	-	-	-	-	-	-	-	<0.050
Dichlorobenzene, 1,3-	µg/g	4.8[A]	-	-	-	-	-	-	-	<0.050
Dichlorobenzene, 1,4-	µg/g	0.083[A]	-	-	-	-	-	-	-	<0.050
Dichlorodifluoromethane (Freon 12)	µg/g	16[A]	-	-	-	-	-	-	-	<0.050
Dichloroethane, 1,1-	µg/g	0.47[A]	-	-	-	-	-	-	-	<0.050
Dichloroethane, 1,2-	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Dichloroethene, 1,1-	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Dichloroethene, cis-1,2-	µg/g	1.9[A]	-	-	-	-	-	-	-	<0.050
Dichloroethene, trans-1,2-	µg/g	0.084[A]	-	-	-	-	-	-	-	<0.050
Dichloropropane, 1,2-	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Dichloropropene, 1,3- (sum of isomers cis + trans)	µg/g	0.05[A]$_{s11}$	-	-	-	-	-	-	-	<0.050
Dichloropropene, cis-1,3-	µg/g	[A]$_{s11}$	-	-	-	-	-	-	-	<0.030
Dichloropropene, trans-1,3-	µg/g	[A]$_{s11}$	-	-	-	-	-	-	-	<0.040
Ethylene Dibromide (Dibromoethane, 1,2-)	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Hexane (n-Hexane)	µg/g	2.8[A]	-	-	-	-	-	-	-	<0.050
Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/g	16[A]	-	-	-	-	-	-	-	<0.50
Methyl Isobutyl Ketone (MIBK)	µg/g	1.7[A]	-	-	-	-	-	-	-	<0.50
Methyl tert-butyl ether (MTBE)	µg/g	0.75[A]	-	-	-	-	-	-	-	<0.050
Methylene Chloride (Dichloromethane)	µg/g	0.1[A]	-	-	-	-	-	-	-	<0.050
Styrene	µg/g	0.7[A]	-	-	-	-	-	-	-	<0.050
Tetrachloroethane, 1,1,1,2-	µg/g	0.058[A]	-	-	-	-	-	-	-	<0.050
Tetrachloroethane, 1,1,2,2-	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Tetrachloroethene (PCE)	µg/g	0.28[A]	-	-	-	-	-	-	-	<0.050
Trichloroethane, 1,1,1-	µg/g	0.38[A]	-	-	-	-	-	-	-	<0.050
Trichloroethane, 1,1,2-	µg/g	0.05[A]	-	-	-	-	-	-	-	<0.050
Trichloroethene (TCE)	µg/g	0.061[A]	-	-	-	-	-	-	-	<0.050
Trichlorofluoromethane (Freon 11)	µg/g	4[A]	-	-	-	-	-	-	-	<0.050
Vinyl Chloride	µg/g	0.02[A]	-	-	-	-	-	-	-	<0.020

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
[A]	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
s1	Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
s2	Standard is for benzo(b)fluoranthene; however, the analytical laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene, and therefore, the result is a combination of the two isomers, against which the standard has been compared.
s3	Standard is applicable to both 1-methylnaphthalene and 2-methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
s7	Standard is applicable to PHC in the F1 range minus BTEX.
s8	Standard is applicable to PHC in the F3 range, minus PAHs (other than naphthalene). If PAHs were not analyzed, the standard is applied to F3.
s10	If baseline is not reached during F4 analysis, then gravimetric analysis is to be performed, and the standard is applied to the higher of the two results.
s11	Standard is applicable to 1,3-Dichloropropene, and the individual isomers (cis + trans) should be added for comparison.
s12	The criteria for pH in surface soils (0 to 1.5 m) is 5 - 9, whereas the criteria for pH in sub-surface soils (> 1.5 m depth) is 5 - 11.
s15	Standard is applicable to PHC in the F2 range minus naphthalene. If naphthalene was not analyzed, the standard is applied to F2.
s16	For surface soil, the boron standard is for hot water soluble extract. For subsurface soil, the standard is for total boron (mixed strong acid digest), as ecological criteria are not considered.
	Soil sample was removed during remedial program

Table 4
Summary of Ground Water Analytical Results
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Sample Location			BH-2	MW20-1	MW20-2	MW20-3	MW20-4			MW20-5					MW20-6				MW20-7		MW20-8		MW-3	Field Blank			Trip Blank	
Sample Date			30-Jan-20	30-Jan-20	30-Jan-20	30-Jan-20	30-Jan-20	30-Jan-20		30-Jan-20	16-Apr-20	30-Apr-20	30-Apr-20		16-Apr-20	16-Apr-20		30-Apr-20	16-Apr-20	30-Apr-20	16-Apr-20	30-Apr-20	30-Jan-20	30-Jan-20	16-Apr-20	30-Apr-20	30-Jan-20	16-Apr-20
Sample ID			BH-2	MW20-1	MW20-2	MW20-3	MW20-4	QC-01		MW20-5	MW20-5	MW20-5	QC-01		MW20-6	QC-01		MW20-6	MW20-7	MW20-7	MW20-8	MW20-8	MW-3	QC-02	QC-02	QC-02	TRIP BLANK	TRIP BLANK
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			BV	BV	BV	BV	BV	BV		BV	BV	BV	BV		BV	BV		BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order			C028186	C028186	C028186	C028186	C028186	C028186		C028186	C095768	C0A6662	C0A6662		C095768	C095768		C0A6662	C095768	C0A6662	C095768	C0A6662	C028186	C028186	C095768	C0A6662	C028186	C095768
Laboratory Sample ID			LXI734	LXI728	LXI729	LXI730	LXI731	LXI732		LXI733	MLR751	MNU356	MNU360		MLR752	MLR755		MNU358	MLR753	MNU357	MLR754	MNU359	LXI735	LXI736	MLR756	MNU361	LXI737	MLR757
Sample Type	Units	Ontario SCS						Field Duplicate	RPD (%)				Field Duplicate	RPD (%)		Field Duplicate	RPD (%)							Field Blank	Field Blank	Field Blank	Trip Blank	Trip Blank
General Chemistry																												
Chloride	mg/L	790[A]	-	-	-	**1,200[A]**	460	460	0%	730	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cyanide (Free)	µg/L	66[A]	-	-	-	<1	<1	<1	nc	<1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BTEX and Petroleum Hydrocarbons																												
Benzene	µg/L	5[A]	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.20	<0.20	-	-	<0.20	-
Toluene	µg/L	24[A]	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.20	<0.20	-	-	<0.20	-
Ethylbenzene	µg/L	2.4[A]	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	nc	<0.20	-	-	-	-	-	-	-	-	-	-	-	-	<0.20	<0.20	-	-	<0.20	-
Xylenes, Total	µg/L	300_{x1}[A]	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	nc	<0.40	-	-	-	-	-	-	-	-	-	-	-	-	<0.40	<0.40	-	-	<0.40	-
PHC F1 (C6-C10 range) minus BTEX	µg/L	750_{x1}[A]	<25	<25	<25	<25	<25	<25	nc	<25	-	-	-	-	-	-	-	-	-	-	-	-	<25	<25	-	-	<25	-
PHC F2 (>C10-C16 range)	µg/L	150_{x15}[A]	<100	<100	<100	<100	<100	<100	nc	<100	-	-	-	-	-	-	-	-	-	-	-	-	<100	<100	-	-	<100	-
PHC F3 (>C16-C34 range)	µg/L	500_{x8}[A]	<200	<200	<200	<200	<200	<200	nc	<200	-	-	-	-	-	-	-	-	-	-	-	-	<200	<200	-	-	<200	-
PHC F4 (>C34-C50 range)	µg/L	500_{x10}[A]	<200	<200	<200	<200	<200	<200	nc	<200	-	-	-	-	-	-	-	-	-	-	-	-	<200	<200	-	-	<200	-
Chromatogram to baseline at C50	none	n/v	YES	YES	YES	YES	YES	YES	nc	YES	-	-	-	-	-	-	-	-	-	-	-	-	YES	YES	-	-	YES	-
Metals																												
Antimony	µg/L	6[A]	-	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	-	-	-	<0.50	<0.50	nc	-	<0.50	-	<0.50	-	-	-	<0.50	-	-	<0.50
Arsenic	µg/L	25[A]	-	-	-	1.4	<1.0	<1.0	nc	<1.0	<1.0	-	-	-	<1.0	<1.0	nc	-	<1.0	-	<1.0	-	-	-	<1.0	-	-	<1.0
Barium	µg/L	1,000[A]	-	-	-	120	34	33	3%	80	91	-	-	-	50	94	**61%**	-	50	-	32	-	-	-	<2.0	-	-	<2.0
Beryllium	µg/L	4[A]	-	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	-	-	-	<0.50	<0.50	nc	-	<0.50	-	<0.50	-	-	-	<0.50	-	-	<0.50
Boron	µg/L	5,000[A]	-	-	-	110	29	29	nc	65	44	-	-	-	59	44	nc	-	39	-	35	-	-	-	<10	-	-	<10
Cadmium	µg/L	2.7[A]	-	-	-	<0.10	<0.10	<0.10	nc	<0.10	<0.10	-	-	-	<0.10	<0.10	nc	-	0.12	-	<0.10	-	-	-	<0.10	-	-	<0.10
Chromium	µg/L	50[A]	-	-	-	<5.0	<5.0	<5.0	nc	<5.0	<5.0	-	-	-	<5.0	<5.0	nc	-	<5.0	-	<5.0	-	-	-	<5.0	-	-	<5.0
Chromium (Hexavalent)	µg/L	25[A]	-	-	-	<0.50	0.63	0.58	nc	<0.50	0.53	-	-	-	0.60	0.52	nc	-	<0.50	-	0.78	-	-	-	<0.50	-	-	<0.50
Cobalt	µg/L	3.8[A]	-	-	-	2.7	<0.50	<0.50	nc	1.3	<0.50	-	-	-	<0.50	<0.50	nc	-	1.0	-	<0.50	-	-	-	<0.50	-	-	<0.50
Copper	µg/L	87[A]	-	-	-	1.0	1.3	1.3	nc	7.4	2.9	-	-	-	1.1	5.4	nc	-	5.4	-	1.4	-	-	-	<1.0	-	-	<1.0
Lead	µg/L	10[A]	-	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	-	-	-	<0.50	<0.50	nc	-	<0.50	-	<0.50	-	-	-	<0.50	-	-	<0.50
Mercury	µg/L	0.29[A]	-	-	-	<0.1	<0.1	<0.1	nc	**1.4[A,a]**	<0.10	-	-	-	<0.10	<0.10	nc	-	<0.10	-	<0.10	-	-	-	<0.10	-	-	<0.10
Mercury	mg/L	0.00029[A]	-	-	-	-	-	-	-	-	-	<0.00010	<0.00010	nc	-	-	-	0.00010	-	<0.00010	-	<0.00010	-	-	-	<0.00010	-	-
Molybdenum	µg/L	70[A]	-	-	-	8.0	0.64	0.59	nc	4.6	0.75	-	-	-	1.6	0.78	nc	-	<0.50	-	<0.50	-	-	-	<0.50	-	-	<0.50
Nickel	µg/L	100[A]	-	-	-	2.8	<1.0	<1.0	nc	2.5	<1.0	-	-	-	<1.0	1.2	nc	-	1.3	-	<1.0	-	-	-	<1.0	-	-	<1.0
Selenium	µg/L	10[A]	-	-	-	<2.0	<2.0	<2.0	nc	<2.0	<2.0	-	-	-	<2.0	<2.0	nc	-	<2.0	-	<2.0	-	-	-	<2.0	-	-	<2.0
Silver	µg/L	1.5[A]	-	-	-	<0.10	<0.10	<0.10	nc	0.47	<0.10	-	-	-	<0.10	<0.10	nc	-	<0.10	-	<0.10	-	-	-	<0.10	-	-	<0.10
Sodium	µg/L	490,000[A]	-	-	-	**790,000[A]**	330,000	330,000	0%	450,000	**590,000[A]**	-	-	-	270,000	**590,000[A]**	**74%**	-	390,000	-	320,000	-	-	-	120	-	-	<100
Thallium	µg/L	2[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	<0.050	-	-	-	<0.050	<0.050	nc	-	<0.050	-	<0.050	-	-	-	<0.050	-	-	<0.050
Uranium	µg/L	20[A]	-	-	-	1.7	1.6	1.6	0%	1.5	0.69	-	-	-	0.57	0.68	18%	-	0.77	-	0.29	-	-	-	<0.10	-	-	<0.10
Vanadium	µg/L	6.2[A]	-	-	-	<0.50	<0.50	<0.50	nc	<0.50	<0.50	-	-	-	<0.50	<0.50	nc	-	<0.50	-	<0.50	-	-	-	<0.50	-	-	<0.50
Zinc	µg/L	1,100[A]	-	-	-	<5.0	<5.0	<5.0	nc	5.4	<5.0	-	-	-	<5.0	<5.0	nc	-	<5.0	-	<5.0	-	-	-	<5.0	-	-	<5.0
Polycyclic Aromatic Hydrocarbons																												
Acenaphthene	µg/L	4.1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acenaphthylene	µg/L	1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Anthracene	µg/L	2.4[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)anthracene	µg/L	1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(a)pyrene	µg/L	0.01[A]	-	-	-	<0.010	<0.010	<0.010	nc	<0.010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(b/j)fluoranthene	µg/L	0.1_{x2}[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(g,h,i)perylene	µg/L	0.2[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Benzo(k)fluoranthene	µg/L	0.1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Chrysene	µg/L	0.1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dibenzo(a,h)anthracene	µg/L	0.2[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoranthene	µg/L	0.41[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluorene	µg/L	120[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	µg/L	0.2[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene (Total)	µg/L	3.2_{s3}[A]	-	-	-	<0.071	<0.071	<0.071	nc	<0.071	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 1-	µg/L	[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Methylnaphthalene, 2-	µg/L	[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Naphthalene	µg/L	11[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phenanthrene	µg/L	1[A]	-	-	-	<0.030	<0.030	<0.030	nc	<0.030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pyrene	µg/L	4.1[A]	-	-	-	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

See notes on last page

Table 4
Summary of Ground Water Analytical Results
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
A	Table 2 - All Types of Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
s1	Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
s2	Standard is for benzo(b)fluoranthene; however, the analytical laboratory can not distinguish between benzo(b)fluoranthene and benzo(j)fluoranthene, and therefore, the result is a combination of the two isomers, against which the standard has been compared.
s3	Standard is applicable to both 1-methylnaphthalene and 2-methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
s7	Standard is applicable to PHC in the F1 range minus BTEX.
s8	Standard is applicable to PHC in the F3 range, minus PAHs (other than naphthalene). If PAHs were not analyzed, the standard is applied to F3.
s10	If baseline is not reached during F4 analysis, then gravimetric analysis is to be performed, and the standard is applied to the higher of the two results.
s15	Standard is applicable to PHC in the F2 range minus naphthalene. If naphthalene was not analyzed, the standard is applied to F2.
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective of 20% of metals or inorganics.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.
BTEX	Benzene, toluene, ethylbenzene, xylenes.
PHC F1 to F4	Petroleum hydrocarbons fractions 1 to 4.
*	Result considered anomolous due to insufficient recovery of ground water prior to sampling.

Table 5
Summary of Soil Maximum Concentrations
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

CAS	Parameter	Unit of Measure	Maximum Concentration	Location of Maximum Concentration	Date of Maximum Concentration	Depth of Maximum Concentration (m bgs)	Maximum Reporting Limit for Non-Detects	Number of Sample Locations	Number of Samples Analyzed	Ontario SCS	Exceed
										Table 2	Table 2
General Chemistry											
PHAVAIL	Available (CaCl2) pH	S.U.	8.62	MW20-5	23-Jan-20	0.6-1.8	n/a	5	9	5-9/5-11	No
57-12-5FREE	Cyanide (Free)	µg/g	(<0.01)	n/a	n/a	n/a	0.01	4	8	0.051	No
CONDLAB	Electrical Conductivity, Lab	mS/cm	1.6	MW20-3	22-Jan-20	1.5-2.4	n/a	4	8	0.7	No*
MOISTURE	Moisture Content	%	21	MW20-5, TP21-2-2	23-Jan-20, 14-Apr-21	1.8-2.4, 2.9-3.2	n/a	8	12	n/v	n/v
7440-23-5AR	Sodium Adsorption Ratio (SAR)	none	38	MW20-3	22-Jan-20	1.5-2.4	n/a	4	8	5	No*
BTEX and Petroleum Hydrocarbons											
71-43-2	Benzene	µg/g	(<0.020)	n/a	n/a	n/a	0.020	7	8	0.21	No
108-88-3	Toluene	µg/g	(<0.020)	n/a	n/a	n/a	0.020	7	8	2.3	No
100-41-4	Ethylbenzene	µg/g	(<0.020)	n/a	n/a	n/a	0.020	7	8	1.1	No
1330-20-7	Xylenes, Total	µg/g	0.052	MW20-5	23-Jan-20	0.6-1.8	0.040	7	8	3.1	No
PHC_F1-BTEX	PHC F1 (C6-C10 range) minus BTEX	µg/g	(<10)	n/a	n/a	n/a	10	7	8	55	No
PHC_F2	PHC F2 (>C10-C16 range)	µg/g	2,200	TP21-2-2	14-Apr-21	2.9-3.2	10	7	8	98	Yes
PHC_F3	PHC F3 (>C16-C34 range)	µg/g	1,500	TP21-2-2	14-Apr-21	2.9-3.2	50	7	8	300	Yes
PHC_F4	PHC F4 (>C34-C50 range)	µg/g	(<50)	n/a	n/a	n/a	50	7	8	2800	No
Metals											
7429-90-5	Aluminum	µg/g	3800	MW20-7	03-Apr-20	0.6-1.2	n/a	3	7	n/v	n/v
7440-36-0	Antimony	µg/g	(<0.20)	n/a	n/a	n/a	0.20	7	15	7.5	No
7440-38-2	Arsenic	µg/g	7.1	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	18	No
7440-39-3	Barium	µg/g	50	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	390	No
7440-41-7	Beryllium	µg/g	0.54	MW20-3	22-Jan-20	1.5-2.4	0.20	7	15	4	No
7440-69-9	Bismuth	µg/g	(<1.0)	n/a	n/a	n/a	1.0	3	7	n/v	n/a
7440-42-8	Boron	µg/g	8.2	MW20-3	22-Jan-20	1.5-2.4	5.0	7	15	120	No
7440-42-8AVAIL	Boron (Available)	µg/g	0.62	MW20-5	23-Jan-20	0-0.6	n/a	4	8	1.5	No
7440-43-9	Cadmium	µg/g	0.12	MW20-3	22-Jan-20	1.5-2.4	0.10	7	15	1.2	No
7440-70-2	Calcium	µg/g	73000	MW20-8	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7440-47-3	Chromium	µg/g	17	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	160	No
18540-29-9	Chromium (Hexavalent)	µg/g	0.22	TP21-3-1	14-Apr-21	2.4-2.7	0.2	4	8	8	No
7440-48-4	Cobalt	µg/g	12	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	22	No
7440-50-8	Copper	µg/g	41	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	140	No
7439-89-6	Iron	µg/g	15000	MW20-7	03-Apr-20	0.6-1.2	n/a	3	7	n/v	n/v
7439-92-1	Lead	µg/g	20	MW20-5	23-Jan-20	0-0.6	n/a	7	15	120	No
7439-93-2	Lithium	µg/g	5.8	MW20-6	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7439-95-4	Magnesium	µg/g	2100	MW20-8	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7439-96-5	Manganese	µg/g	330	MW20-8	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7439-97-6	Mercury	µg/g	2.4	MW20-5	23-Jan-20	1.8-2.4	0.050	11	21	0.27	Yes
7439-98-7	Molybdenum	µg/g	0.68	MW20-5	23-Jan-20	1.8-2.4	0.50	7	15	6.9	No
7440-02-0	Nickel	µg/g	24	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	100	No
7723-14-0	Phosphorus	µg/g	730	MW20-6	03-Apr-20	0.6-1.2	n/a	3	7	n/v	n/v
7440-09-7	Potassium	µg/g	660	MW20-7	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7782-49-2	Selenium	µg/g	(<0.50)	n/a	n/a	n/a	0.50	7	15	2.4	No
7440-22-4	Silver	µg/g	1.1	MW20-5	23-Jan-20	1.8-2.4	0.20	7	15	20	No
7440-23-5	Sodium	µg/g	250	MW20-7	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7440-24-6	Strontium	µg/g	110	MW20-8	03-Apr-20	1.8-2.4	n/a	3	7	n/v	n/v
7440-28-0	Thallium	µg/g	0.11	MW20-3	22-Jan-20	1.5-2.4	0.050	7	15	1	No
7440-31-5	Tin	µg/g	(<1.0)	n/a	n/a	n/a	1.0	3	7	n/v	n/a
7440-32-6	Titanium	µg/g	290	MW20-6	03-Apr-20	0.6-1.2	n/a	3	7	n/v	n/v
7440-61-1	Uranium	µg/g	0.54	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	23	No
7440-62-2	Vanadium	µg/g	28	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	86	No
7440-66-6	Zinc	µg/g	57	MW20-3	22-Jan-20	1.5-2.4	n/a	7	15	340	No
Polycyclic Aromatic Hydrocarbons											
83-32-9	Acenaphthene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	7.9	No
208-96-8	Acenaphthylene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.15	No
120-12-7	Anthracene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.67	No
56-55-3	Benzo(a)anthracene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.5	No
50-32-8	Benzo(a)pyrene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.3	No
205992/205823	Benzo(b/j)fluoranthene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.78	No
191-24-2	Benzo(g,h,i)perylene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	6.6	No
207-08-9	Benzo(k)fluoranthene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.78	No
218-01-9	Chrysene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	7	No
53-70-3	Dibenzo(a,h)anthracene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.1	No
206-44-0	Fluoranthene	µg/g	0.0061	TP21-3-1	14-Apr-21	2.4-2.7	0.0050	4	5	0.69	No
86-73-7	Fluorene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	62	No
193-39-5	Indeno(1,2,3-cd)pyrene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.38	No
90120/91576	Methylnaphthalene (Total)	µg/g	(<0.0071)	n/a	n/a	n/a	0.0071	4	5	0.99	No
90-12-0	Methylnaphthalene, 1-	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	n/v	n/a
91-57-6	Methylnaphthalene, 2-	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	n/v	n/a
91-20-3	Naphthalene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	0.6	No
85-01-8	Phenanthrene	µg/g	(<0.0050)	n/a	n/a	n/a	0.0050	4	5	6.2	No
129-00-0	Pyrene	µg/g	0.0064	TP21-3-1	44300	2.4-2.7	0.0050	4	5	78	No
Volatile Organic Compounds											
67-64-1	Acetone	µg/g	(<0.50)	n/a	n/a	n/a	0.50	3	3	16	No
75-27-4	Bromodichloromethane	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	1.5	No
75-25-2	Bromoform (Tribromomethane)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.27	No
74-83-9	Bromomethane (Methyl bromide)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
56-23-5	Carbon Tetrachloride (Tetrachloromethane)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
108-90-7	Chlorobenzene (Monochlorobenzene)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	2.4	No
67-66-3	Chloroform (Trichloromethane)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
124-48-1	Dibromochloromethane	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	2.3	No
95-50-1	Dichlorobenzene, 1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	1.2	No
541-73-1	Dichlorobenzene, 1,3-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	4.8	No
106-46-7	Dichlorobenzene, 1,4-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.083	No
75-71-8	Dichlorodifluoromethane (Freon 12)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	16	No
75-34-3	Dichloroethane, 1,1-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.47	No
107-06-2	Dichloroethane, 1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
75-35-4	Dichloroethene, 1,1-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
156-59-2	Dichloroethene, cis-1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	1.9	No
156-60-5	Dichloroethene, trans-1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.084	No
78-87-5	Dichloropropane, 1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
542-75-6	Dichloropropene, 1,3- (sum of isomers cis + trans)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
10061-01-5	Dichloropropene, cis-1,3-	µg/g	(<0.030)	n/a	n/a	n/a	0.030	3	3	n/v	n/a
10061-02-6	Dichloropropene, trans-1,3-	µg/g	(<0.040)	n/a	n/a	n/a	0.040	3	3	n/v	n/a
106-93-4	Ethylene Dibromide (Dibromoethane, 1,2-)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
110-54-3	Hexane (n-Hexane)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	2.8	No
78-93-3	Methyl Ethyl Ketone (MEK) (2-Butanone)	µg/g	(<0.50)	n/a	n/a	n/a	0.50	3	3	16	No
108-10-1	Methyl Isobutyl Ketone (MIBK)	µg/g	(<0.50)	n/a	n/a	n/a	0.50	3	3	1.7	No
1634-04-4	Methyl tert-butyl ether (MTBE)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.75	No
75-09-2	Methylene Chloride (Dichloromethane)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.1	No
100-42-5	Styrene	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.7	No
630-20-6	Tetrachloroethane, 1,1,1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.058	No
79-34-5	Tetrachloroethane, 1,1,2,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
127-18-4	Tetrachloroethene (PCE)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.28	No
71-55-6	Trichloroethane, 1,1,1-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.38	No
79-00-5	Trichloroethane, 1,1,2-	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.05	No
79-01-6	Trichloroethene (TCE)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	0.061	No
75-69-4	Trichlorofluoromethane (Freon 11)	µg/g	(<0.050)	n/a	n/a	n/a	0.050	3	3	4	No
75-01-4	Vinyl Chloride	µg/g	(<0.020)	n/a	n/a	n/a	0.020	3	3	0.02	No

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
Table 2	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
n/a	Not applicable
n/v	No standard/guideline value.
BTEX	Benzene, toluene, ethylbenzene, xylenes.
PHC F1 - F4	Petroleum hydrocarbon fractions 1 to 4
(<0.050)	The analyte was never detected above the laboratory reporting limit, the maximum reporting limit is displayed
0.023 (<0.040)	The analyte was detected, but there was a non-detect with a higher laboratory reporting limit
*	Due to parameter's association with winter maintenance activities, not considered to be a CoC

Table 6
Summary of Ground Water Maximum Concentrations
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

CAS	Parameter	Unit of Measure	Maximum Concentration	Location of Maximum Concentration	Date of Maximum Concentration	Maximum Reporting Limit for Non-Detects	Number of Sample Locations	Number of Samples Analyzed	Ontario SCS Table 2	Exceed Table 2
General Chemistry										
16887-00-6	Chloride	mg/L	1200	MW20-3	30-Jan-20	n/a	3	4	790	No**
57-12-5FREE	Cyanide (Free)	µg/L	(<1)	n/a	n/a	1	3	4	66	No
BTEX and Petroleum Hydrocarbons										
71-43-2	Benzene	µg/L	(<0.20)	n/a	n/a	0.20	7	8	5	No
108-88-3	Toluene	µg/L	(<0.20)	n/a	n/a	0.20	7	8	24	No
100-41-4	Ethylbenzene	µg/L	(<0.20)	n/a	n/a	0.20	7	8	2.4	No
1330-20-7	Xylenes, Total	µg/L	(<0.40)	n/a	n/a	0.40	7	8	300	No
PHC_F1-BTEX	PHC F1 (C6-C10 range) minus BTEX	µg/L	(<25)	n/a	n/a	25	7	8	750	No
PHC_F2	PHC F2 (>C10-C16 range)	µg/L	(<100)	n/a	n/a	100	7	8	150	No
PHC_F3	PHC F3 (>C16-C34 range)	µg/L	(<200)	n/a	n/a	200	7	8	500	No
PHC_F4	PHC F4 (>C34-C50 range)	µg/L	(<200)	n/a	n/a	200	7	8	500	No
Metals										
7440-36-0	Antimony	µg/L	(<0.50)	n/a	n/a	0.50	6	9	6	No
7440-38-2	Arsenic	µg/L	1.4	MW20-3	30-Jan-20	1.0	6	9	25	No
7440-39-3	Barium	µg/L	120	MW20-3	30-Jan-20	n/a	6	9	1000	No
7440-41-7	Beryllium	µg/L	(<0.50)	n/a	n/a	0.50	6	9	4	No
7440-42-8	Boron	µg/L	110	MW20-3	30-Jan-20	n/a	6	9	5000	No
7440-43-9	Cadmium	µg/L	0.12	MW20-7	16-Apr-20	0.10	6	9	2.7	No
7440-47-3	Chromium	µg/L	(<5.0)	n/a	n/a	5.0	6	9	50	No
18540-29-9	Chromium (Hexavalent)	µg/L	0.78	MW20-8	16-Apr-20	0.50	6	9	25	No
7440-48-4	Cobalt	µg/L	2.7	MW20-3	30-Jan-20	0.50	6	9	3.8	No
7440-50-8	Copper	µg/L	7.4	MW20-5	30-Jan-20	n/a	6	9	87	No
7439-92-1	Lead	µg/L	(<0.50)	n/a	n/a	0.50	6	9	10	No
7439-97-6	Mercury	µg/L	1.4*	MW20-5	30-Jan-20	0.10	6	14	0.29	Yes
7439-98-7	Molybdenum	µg/L	8.0	MW20-3	30-Jan-20	0.50	6	9	70	No
7440-02-0	Nickel	µg/L	2.8	MW20-3	30-Jan-20	1.0	6	9	100	No
7782-49-2	Selenium	µg/L	(<2.0)	n/a	n/a	2.0	6	9	10	No
7440-22-4	Silver	µg/L	0.47	MW20-5	30-Jan-20	0.10	6	9	1.5	No
7440-23-5	Sodium	µg/L	790000	MW20-3	30-Jan-20	n/a	6	9	490000	No**
7440-28-0	Thallium	µg/L	(<0.050)	n/a	n/a	0.050	6	9	2	No
7440-61-1	Uranium	µg/L	1.7	MW20-3	30-Jan-20	n/a	6	9	20	No
7440-62-2	Vanadium	µg/L	(<0.50)	n/a	n/a	0.50	6	9	6.2	No
7440-66-6	Zinc	µg/L	5.4	MW20-5	30-Jan-20	5.0	6	9	1100	No
Polycyclic Aromatic Hydrocarbons										
83-32-9	Acenaphthene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	4.1	No
208-96-8	Acenaphthylene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	1	No
120-12-7	Anthracene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	2.4	No
56-55-3	Benzo(a)anthracene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	1	No
50-32-8	Benzo(a)pyrene	µg/L	(<0.010)	n/a	n/a	0.010	3	4	0.01	No
205992/205823	Benzo(b/j)fluoranthene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.1	No
191-24-2	Benzo(g,h,i)perylene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.2	No
207-08-9	Benzo(k)fluoranthene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.1	No
218-01-9	Chrysene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.1	No
53-70-3	Dibenzo(a,h)anthracene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.2	No
206-44-0	Fluoranthene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.41	No
86-73-7	Fluorene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	120	No
193-39-5	Indeno(1,2,3-cd)pyrene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	0.2	No
90120/91576	Methylnaphthalene (Total)	µg/L	(<0.071)	n/a	n/a	0.071	3	4	3.2	No
90-12-0	Methylnaphthalene, 1-	µg/L	(<0.050)	n/a	n/a	0.050	3	4	n/v	n/a
91-57-6	Methylnaphthalene, 2-	µg/L	(<0.050)	n/a	n/a	0.050	3	4	n/v	n/a
91-20-3	Naphthalene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	11	No
85-01-8	Phenanthrene	µg/L	(<0.030)	n/a	n/a	0.030	3	4	1	No
129-00-0	Pyrene	µg/L	(<0.050)	n/a	n/a	0.050	3	4	4.1	No

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
Table 2	Table 2 - All Types of Property Use - Coarse Textured Soils
n/a	Not applicable
n/v	No standard/guideline value.
BTEX	Benzene, toluene, ethylbenzene, xylenes.
PHC F1 - F4	Petroleum hydrocarbon fractions 1 to 4
(<0.050)	The analyte was never detected above the laboratory reporting limit, the maximum reporting limit is displayed
0.023 (<0.040)	The analyte was detected, but there was a non-detect with a higher laboratory reporting limit
*	Result considered anomolous due to insufficient recovery of ground water prior to sampling.
**	Due to parameter's association with winter maintenance activities, not considered to be a CoC

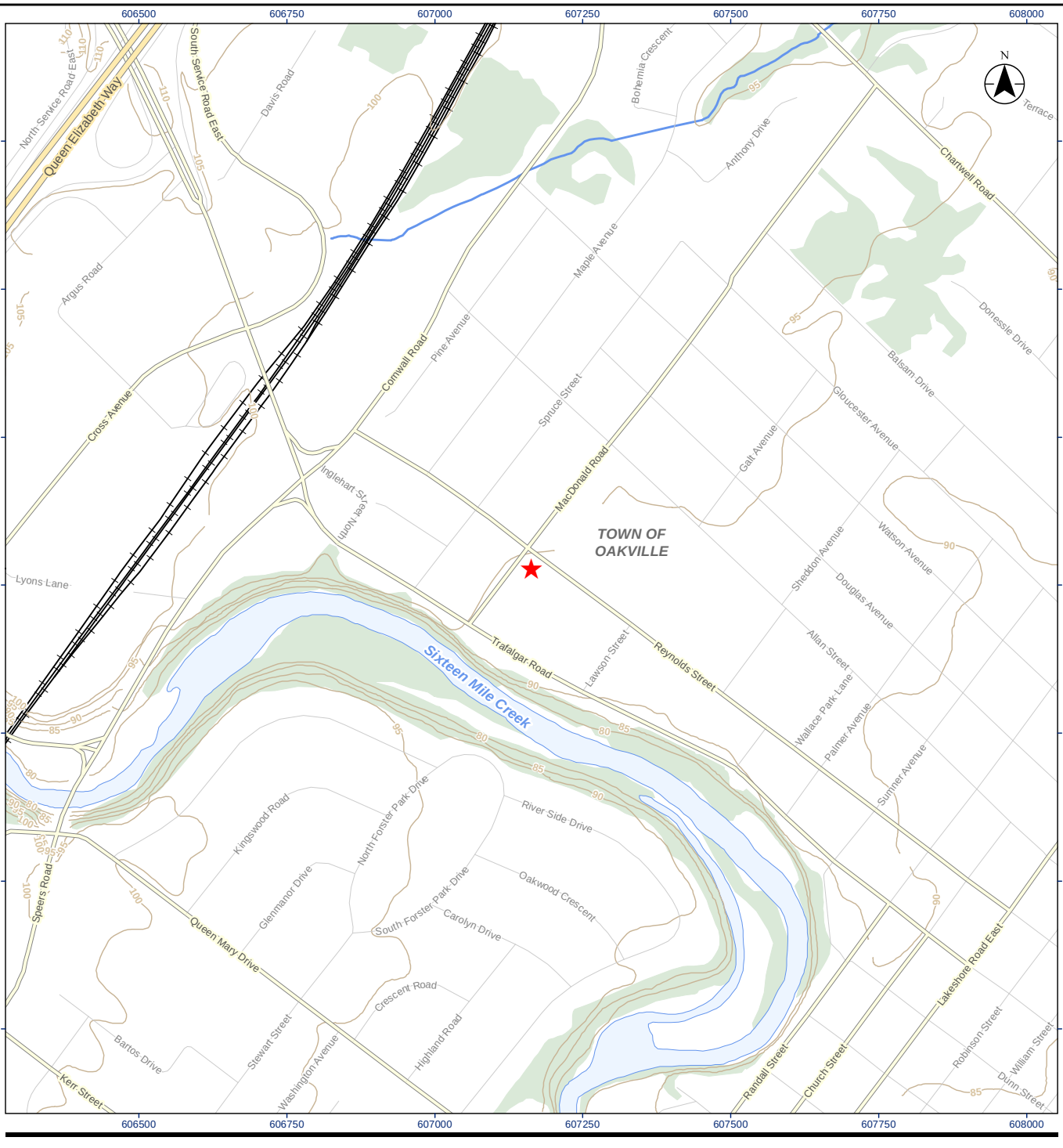
Table 7
Summary of Waste Characterization Analytical Results
358 Reynolds Street, Oakville, Ontario
Transmetro Limited

Sample Location	Units	O.Reg. 347 Sch 4 & 362	TCLP
Sample Date			23-Jan-20
Sample ID			TCLP
Sampling Company			STANTEC
Laboratory			BV
Laboratory Work Order			C022748
Laboratory Sample ID			LWF105
General Chemistry - TCLP			
Cyanide (Free)	mg/L	20[A]	<0.010
Fluoride	mg/L	150[A]	0.35
Moisture Content	%	n/v	13
Nitrate (as N)	mg/L	n/v	<1.0
Nitrate + Nitrite (as N)	mg/L	1,000[A]	<1.0
Nitrite (as N)	mg/L	n/v	<0.10
Leachate Preparation			
Amount Extracted (Wet Weight)	g	n/v	25
Extraction Fluid	none	n/v	FLUID 1
pH Final	S.U.	n/v	6.28
pH Initial	S.U.	n/v	9.13
Total Solids	%	n/v	100
Ignitability			
Ignitability	none	n/v	NF/NI
Metals - TCLP			
Arsenic	mg/L	2.5[A]	<0.2
Barium	mg/L	100[A]	0.3
Boron	mg/L	500[A]	0.2
Cadmium	mg/L	0.5[A]	<0.05
Chromium	mg/L	5[A]	<0.1
Lead	mg/L	5[A]	<0.1
Mercury	mg/L	0.1[A]	<0.001
Selenium	mg/L	1[A]	<0.1
Silver	mg/L	5[A]	<0.01
Uranium	mg/L	10[A]	<0.01
Polychlorinated Biphenyls - TCLP			
Aroclor 1016	µg/g	n/v	<0.010
Aroclor 1221	µg/g	n/v	<0.010
Aroclor 1232	µg/g	n/v	<0.010
Aroclor 1242	µg/g	n/v	<0.010
Aroclor 1248	µg/g	n/v	<0.010
Aroclor 1254	µg/g	n/v	<0.010
Aroclor 1260	µg/g	n/v	<0.010
Aroclor 1262	µg/g	n/v	<0.010
Aroclor 1268	µg/g	n/v	<0.010
Polychlorinated Biphenyls (PCBs)	µg/g	50[B]	<0.010
Polycyclic Aromatic Hydrocarbons - TCLP			
Benzo(a)pyrene	µg/L	1[A]	<0.10
Volatile Organic Compounds - TCLP			
Benzene	mg/L	0.5[A]	<0.020
Carbon Tetrachloride (Tetrachloromethane)	mg/L	0.5[A]	<0.020
Chlorobenzene (Monochlorobenzene)	mg/L	8[A]	<0.020
Chloroform (Trichloromethane)	mg/L	10[A]	<0.020
Dichlorobenzene, 1,2-	mg/L	20[A]	<0.050
Dichlorobenzene, 1,4-	mg/L	0.5[A]	<0.050
Dichloroethane, 1,2-	mg/L	0.5[A]	<0.050
Dichloroethene, 1,1-	mg/L	1.4[A]	<0.020
Methyl Ethyl Ketone (MEK) (2-Butanone)	mg/L	200[A]	<1.0
Methylene Chloride (Dichloromethane)	mg/L	5[A]	<0.20
Tetrachloroethene (PCE)	mg/L	3[A]	<0.020
Trichloroethene (TCE)	mg/L	5[A]	<0.020
Vinyl Chloride	mg/L	0.2[A]	<0.020

Notes:

O.Reg. 347 Sch 4	Ontario Ministry of the Environment
[A]	MOE O.Reg. 347 of R.R.O. 1990 - Schedule 4 – Leachate Quality Criteria
O.Reg 362	R.R.O. 1990, Regulation 362, Waste Management - PCBs
[B]	MOE O.Reg. 362 of R.R.O. 1990
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
NF/NI	Non-flammable and non-ignitable.

FIGURES



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4. m AMSL - metres Above Mean Sea Level

- Site Location
- Expressway / Highway
- Major Road
- Minor Road
- Topographic Contour (m AMSL)
- Railway - Operational
- Watercourse
- Waterbody
- Wooded Area

0 100 200 metres
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Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 8/10/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
1

Title
Site Location

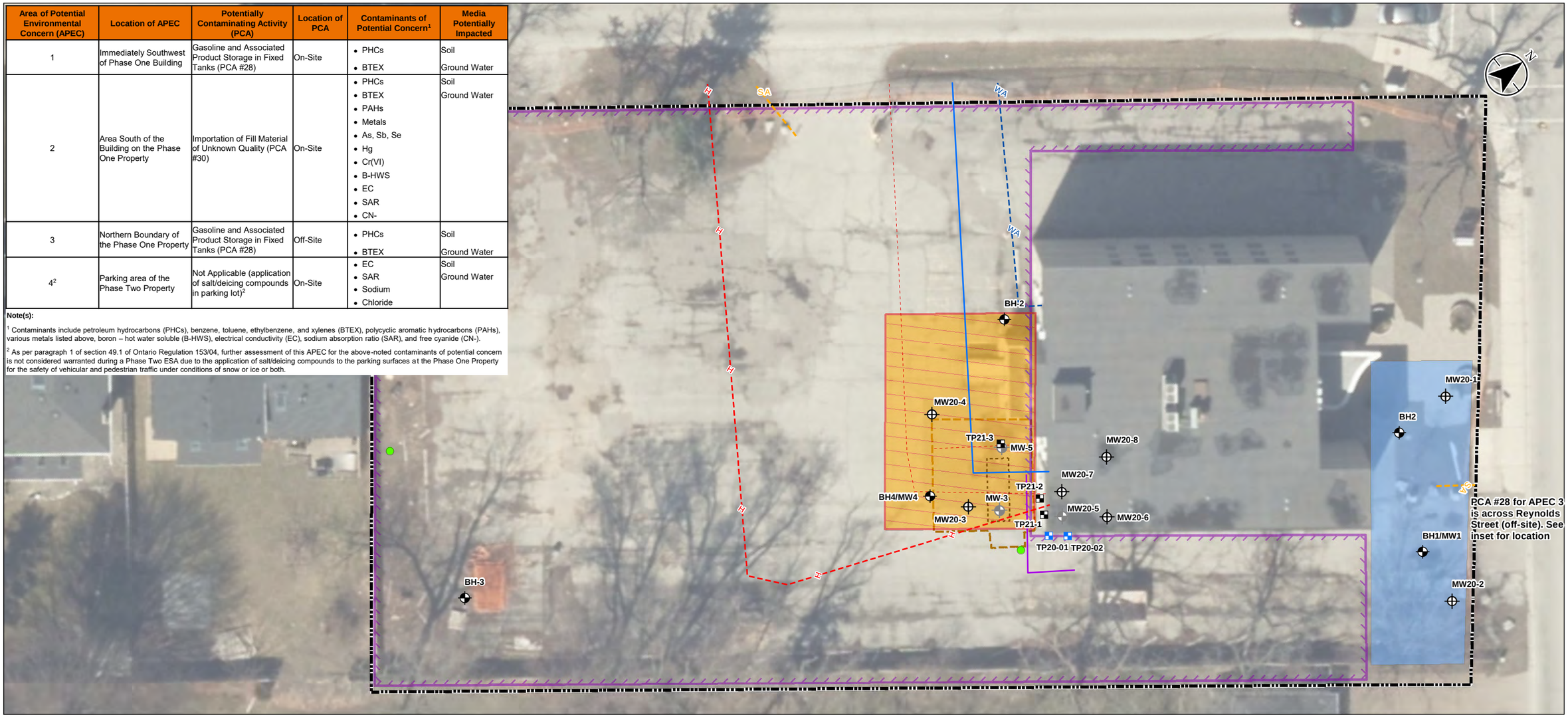
\\ cd1224-f02\ work_group\01221\ active\ 122120345\03_ data\ gis_ cad\ gis\ mxds\ Remediation\ report_ figures\ PhaseIIESA\ 122120345_ PhIIESA_ Fig01_ SiteLocation.mxd Revised: 2021-08-10 By: ipodrug

Area of Potential Environmental Concern (APEC)	Location of APEC	Potentially Contaminating Activity (PCA)	Location of PCA	Contaminants of Potential Concern[1]	Media Potentially Impacted
1	Immediately Southwest of Phase One Building	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	On-Site	• PHCs • BTEX	Soil Ground Water
2	Area South of the Building on the Phase One Property	Importation of Fill Material of Unknown Quality (PCA #30)	On-Site	• PHCs • BTEX • PAHs • Metals • As, Sb, Se • Hg • Cr(VI) • B-HWS • EC • SAR • CN-	Soil Ground Water
3	Northern Boundary of the Phase One Property	Gasoline and Associated Product Storage in Fixed Tanks (PCA #28)	Off-Site	• PHCs • BTEX	Soil Ground Water
4[2]	Parking area of the Phase Two Property	Not Applicable (application of salt/deicing compounds in parking lot)[2]	On-Site	• EC • SAR • Sodium • Chloride	Soil Ground Water

Note(s):

[1] Contaminants include petroleum hydrocarbons (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs), various metals listed above, boron – hot water soluble (B-HWS), electrical conductivity (EC), sodium absorption ratio (SAR), and free cyanide (CN-).

[2] As per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of this APEC for the above-noted contaminants of potential concern is not considered warranted during a Phase Two ESA due to the application of salt/deicing compounds to the parking surfaces at the Phase One Property for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.



0 5 10 metres

1:275 (At original document size of 11x17)

Notes

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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. APEC - Area of Potential Environmental Concern
7. FIP - Fire Insurance Plan
8. UST - Underground Storage Tank

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Two 10,000 gallon Underground Oil Tanks - FIP (1966)
- Approximate Location of Former UST
- Location of Property Boundary
- APEC 1
- APEC 2
- APEC 3
- APEC 4

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-19

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
2

Title
Site Plan Showing APEC and Sampling Locations

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- H — Approximate Location of Hydro
- SA — Approximate Location of Waste Water
- WA — Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Ground Water Contour (m AMSL)
- Inferred Direction of Ground Water Flow
- 97.50 Ground Water Elevation (m AMSL)
- * Ground Water Elevation Not Used in Contour Generation

Notes
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6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. m AMSL - metres above mean sea level

0 5 10 metres
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Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-19

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
3a

Title
Inferred Direction of Ground Water Flow - January 30, 2020

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- H — Approximate Location of Hydro
- SA — Approximate Location of Waste Water
- WA — Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Ground Water Contour (m AMSL)
- Inferred Direction of Ground Water Flow
- 98.31 Ground Water Elevation (m AMSL)

0 5 10 metres

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Notes

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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. m AMSL - metres above mean sea level

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-19

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
3b

Title
Inferred Direction of Ground Water Flow - April 30, 2020

MW20-4	
	3.0 - 3.7 m (01/22/2020)
PHCs	< SCS / < SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PHCs	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
PHCs	< SCS

MW20-2	
	0.4 - 0.8 m (01/22/2020)
PHCs	< SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
PHCs	< SCS

TP21-2	
	2.9 - 3.2 m (04/14/2021)
PHCs	-
PHC F2 (>C10-C16 range)	2,200
PHC F3 (>C16-C34 range)	1,500

MW20-1	
	2.4 - 3.0 m (01/22/2020)
PHCs	< SCS

BH-2
MW20-4
TP21-3
MW-5
MW20-8
TP21-2
MW20-7
BH4/MW4
MW20-5
MW20-3
MW-3
TP21-1
MW20-6
TP20-01
TP20-02
MW20-1
BH2
BH1/MW1
MW20-2
BH-3

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Exceed Regulatory Standards (2011 MECP Table 2 SCS)

Notes
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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
9. m BGS - metres Below Ground Surface
10. PHCs - Petroleum Hydrocarbons

0 5 10 metres
1:275 (At original document size of 11x17)

Sample ID | Depth (m BGS) Date (mm/dd/yyyy)
MW20-3 | 1.5 - 2.4 m (01/22/2020)
PHCs | < SCS
Parameter | Concentration Less Than Table 2 SCS

MECP 2011		
Parameter	Table 2 SCS	Units
PHC F2 (>C10-C16 range)	98	µg/g
PHC F3 (>C16-C34 range)	300	µg/g

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
4a

Title
Summary of Soil Analytical Results - PHCs

MW20-4	
	3.0 - 3.7 m (01/22/2020)
BTEX	< SCS / < SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
BTEX	< SCS

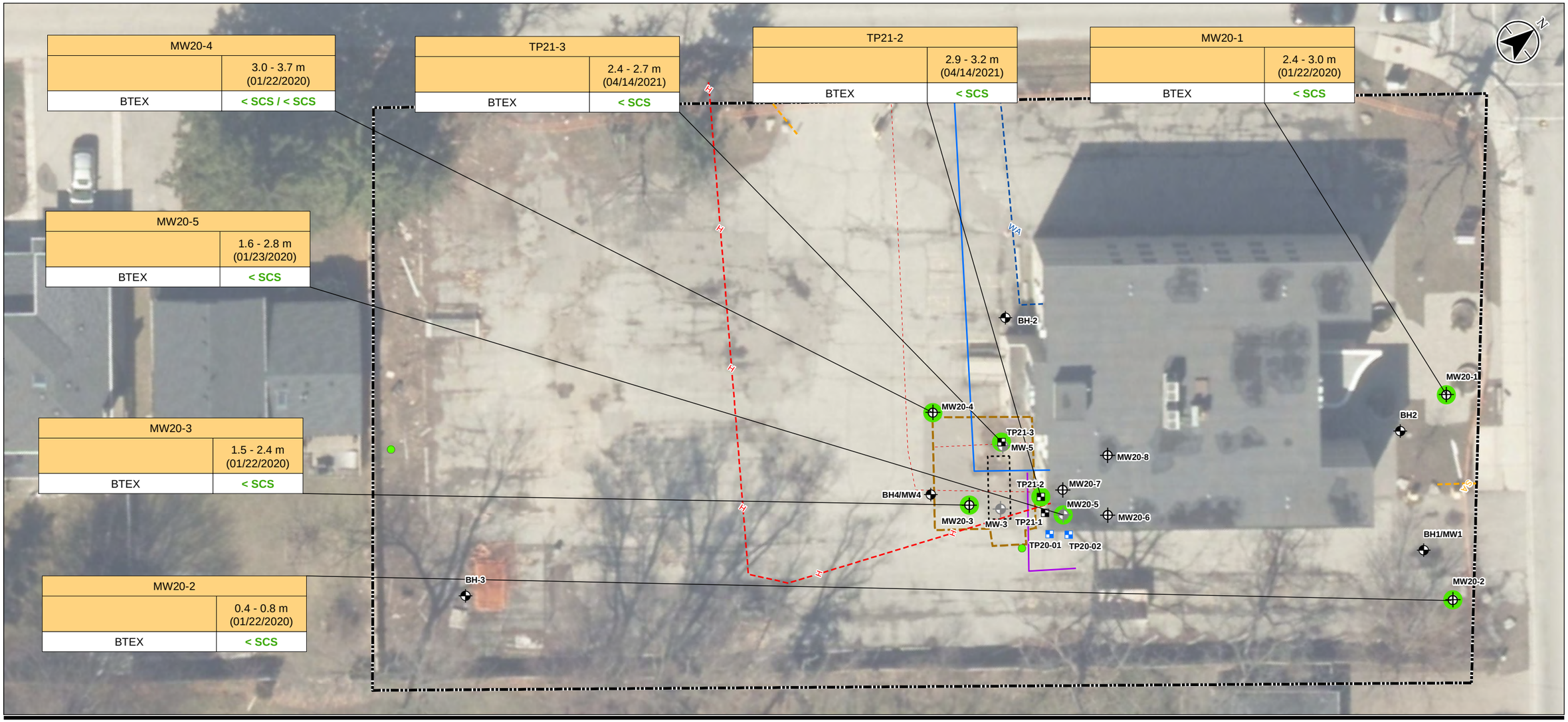
TP21-2	
	2.9 - 3.2 m (04/14/2021)
BTEX	< SCS

MW20-1	
	2.4 - 3.0 m (01/22/2020)
BTEX	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
BTEX	< SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
BTEX	< SCS

MW20-2	
	0.4 - 0.8 m (01/22/2020)
BTEX	< SCS



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6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
9. m BGS - metres Below Ground Surface
10. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
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- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

0 5 10 metres

1:275 (At original document size of 11x17)

Sample ID — Depth (m BGS) Date (mm/dd/yyyy)

MW20-5	
	0.6 - 1.8 m (01/23/2020)
BTEX	< SCS

Parameter — Concentration Less Than Table 2 SCS

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
4b

Title
Summary of Soil Analytical Results - BTEX

TP21-3	
	2.4 - 2.7 m (04/14/2021)
PAHs	< SCS

TP21-2	
	2.9 - 3.2 m (04/14/2021)
PAHs	< SCS

MW20-4	
	3.0 - 3.7 m (01/22/2020)
PAHs	< SCS / < SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PAHs	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
PAHs	< SCS

BH-2
BH-3
MW20-1
BH2
BH1/MW1
MW20-2
MW20-4
TP21-3
MW-5
MW20-8
BH4/MW4
TP21-2
MW20-7
MW20-3
MW-3
TP21-1
MW20-5
MW20-6
TP20-01
TP20-02

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID — Depth (m BGS) Date (mm/dd/yyyy)

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PAHs	< SCS

Parameter — Concentration Less Than Table 2 SCS

0 5 10 metres

1:275 (At original document size of 11x17)

Notes

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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
9. m BGS - metres Below Ground Surface
10. PAH - Polycyclic Aromatic Hydrocarbons

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
4c

Title
Summary of Soil Analytical Results - PAHs

MW20-4	
	3.0 - 3.7 m (01/22/2020)
Metals	< SCS / < SCS
Electrical Conductivity	< SCS / < SCS
Sodium Adsorption Ratio	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Boron, Hot Water Soluble	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

TP21-1		
	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/12/2021)
Mercury	< SCS	< SCS

TP21-2		
	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/12/2021)
Mercury	< SCS	< SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-7		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS / < SCS
Arsenic Selenium Antimony	< SCS	< SCS / < SCS
Mercury	< SCS	< SCS / < SCS

MW20-8		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

MW20-6		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

MW20-5				
	1.0 - 1.6 m (01/23/2020)	1.6 - 2.8 m (01/23/2020)	2.8 - 3.4 m (01/23/2020)	3.4 - 4.0 m (01/23/2020)
Metals	< SCS	< SCS	< SCS	< SCS
Electrical Conductivity	< SCS	< SCS	< SCS	< SCS
Sodium Adsorption Ratio	< SCS	< SCS	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS	< SCS	< SCS
Boron, Hot Water Soluble	< SCS	< SCS	< SCS	< SCS
Chromium, hexavalent	< SCS	< SCS	< SCS	< SCS
Cyanide	< SCS	< SCS	< SCS	< SCS
Mercury	< SCS	1.1	2.4	< SCS

TP20-01		
	0.0 - 1.0 m (10/21/2020)	1.0 - 2.0 m (10/21/2020)
Mercury	< SCS	< SCS

TP20-02	
	1.0 - 2.0 m (10/21/2020)
Mercury	< SCS

BH-3, BH-2, BH4/MW4, BH2, BH1/MW1, MW20-1, MW20-2, MW20-3, MW20-4, MW20-5, MW20-6, MW20-7, MW20-8, MW-3, MW-5, TP21-1, TP21-2, TP21-3, TP20-01, TP20-02, H, SA, WA

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Exceed Regulatory Standards (2011 MECP Table 2 SCS)

0 5 10 metres

1:275 (At original document size of 11x17)

Sample ID — Depth (m BGS) Date (mm/dd/yyyy)

MW20-6		
Date	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

Parameter — Concentration Less Than Table 2 SCS

MECP 2011		
Parameter	Table 2 SCS	Units
Mercury	0.27	µg/g

Notes

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6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
9. m BGS - metres Below Ground Surface
10. EC and SAR concentrations in soil are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under the conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
4d

Title
Summary of Soil Analytical Results - Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, EC, SAR, CN-

MW20-1 (0.9 - 3.7 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

BH-2 (0.6 - 3.6 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

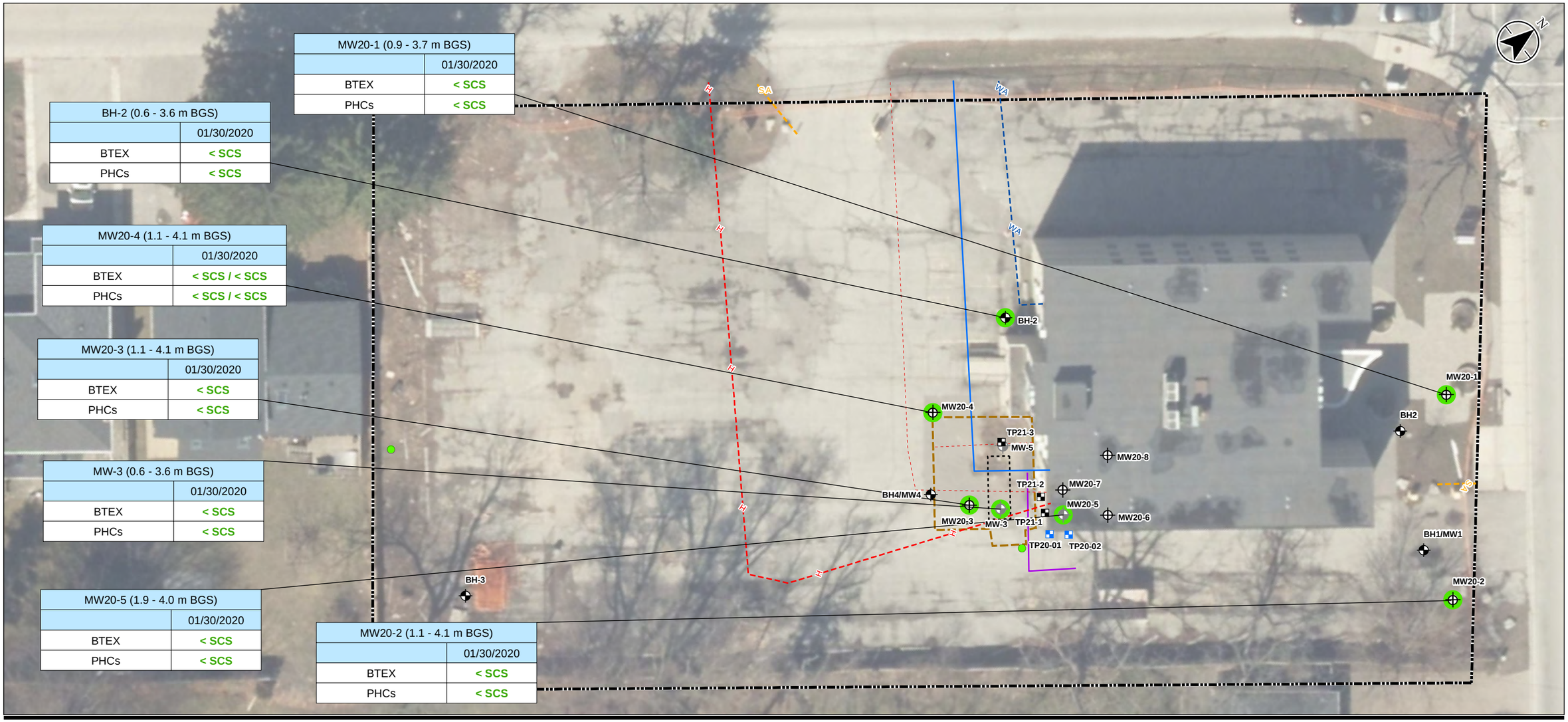
MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS / < SCS
PHCs	< SCS / < SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

MW-3 (0.6 - 3.6 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

MW20-2 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS



Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

0 5 10 metres

1:275 (At original document size of 11x17)

Sample ID	Screen Interval	Date (mm/dd/yyyy)
MW20-3 (1.1 - 4.1 m BGS)		
		01/30/2020
BTEX and PHCs		< SCS
Parameter		Concentration Less Than Table 2 SCS

Notes

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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PHCs - Petroleum Hydrocarbons
10. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
5a

Title
Summary of Ground Water Analytical Results - BTEX and PHCs

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS / < SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
PAHs	< SCS

H
SA
WA
BH-2
MW20-4
TP21-3
MW-5
MW20-8
MW20-1
BH2
BH4/MW4
TP21-2
MW20-7
MW20-5
MW20-3
MW-3
TP21-1
MW20-6
TP20-01
TP20-02
BH1/MW1
BH-3
MW20-2

N

Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

0 5 10 metres

1:275 (At original document size of 11x17)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

Parameter | Concentration Less Than Table 2 SCS

Notes

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6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PAH - Polycyclic Aromatic Hydrocarbons

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
5b

Title
Summary of Ground Water Analytical Results - PAHs

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS / < SCS
Sodium	< SCS / < SCS
Chloride	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

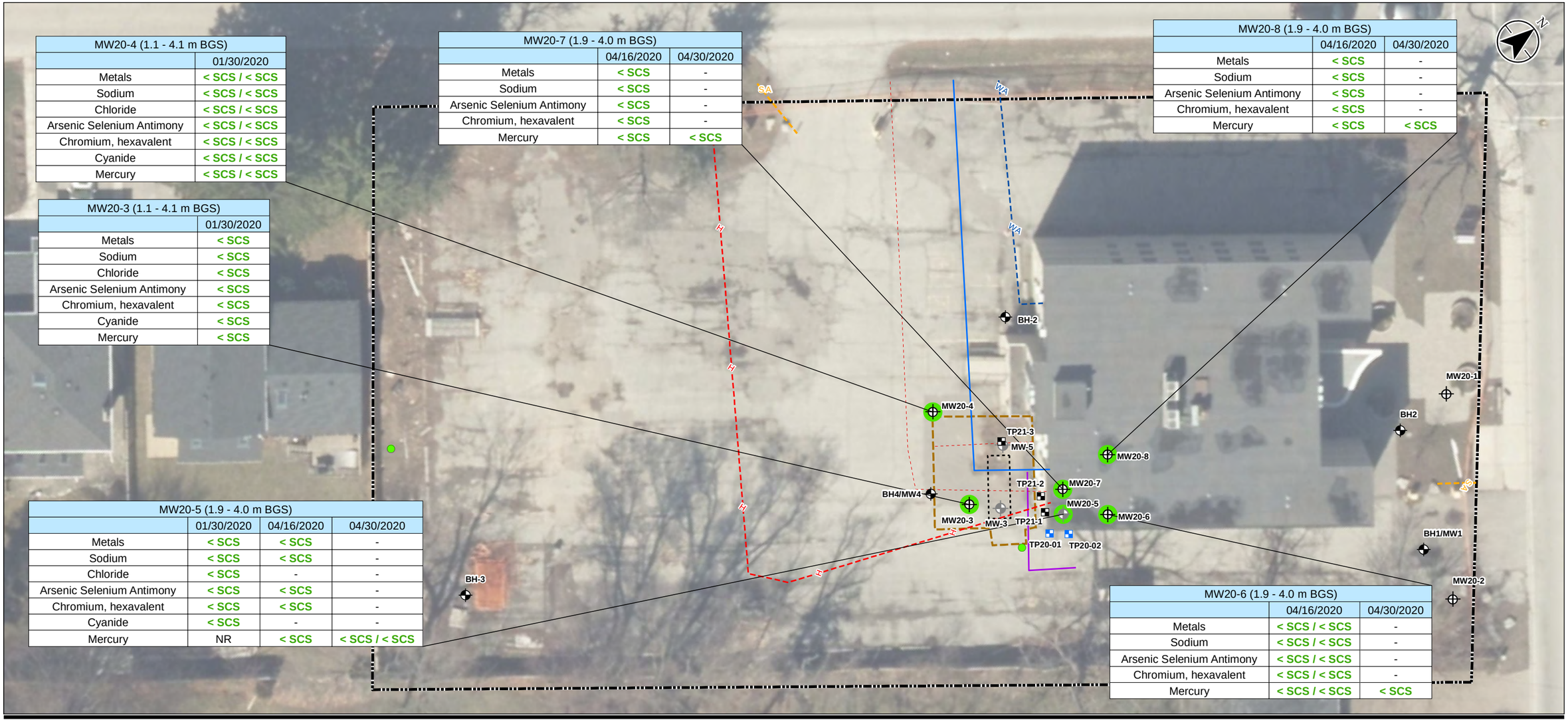
MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-5 (1.9 - 4.0 m BGS)			
	01/30/2020	04/16/2020	04/30/2020
Metals	< SCS	< SCS	-
Sodium	< SCS	< SCS	-
Chloride	< SCS	-	-
Arsenic Selenium Antimony	< SCS	< SCS	-
Chromium, hexavalent	< SCS	< SCS	-
Cyanide	< SCS	-	-
Mercury	NR	< SCS	< SCS / < SCS

MW20-7 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS

MW20-8 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS

MW20-6 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS / < SCS	-
Sodium	< SCS / < SCS	-
Arsenic Selenium Antimony	< SCS / < SCS	-
Chromium, hexavalent	< SCS / < SCS	-
Mercury	< SCS / < SCS	< SCS



Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

0 5 10 metres

1:275 (At original document size of 11x17)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

Parameter | Concentration Does Not Exceed Table 2 SCS

Notes

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6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. Sodium and chloride concentrations in ground water are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act
10. NR - Not Representative

Stantec

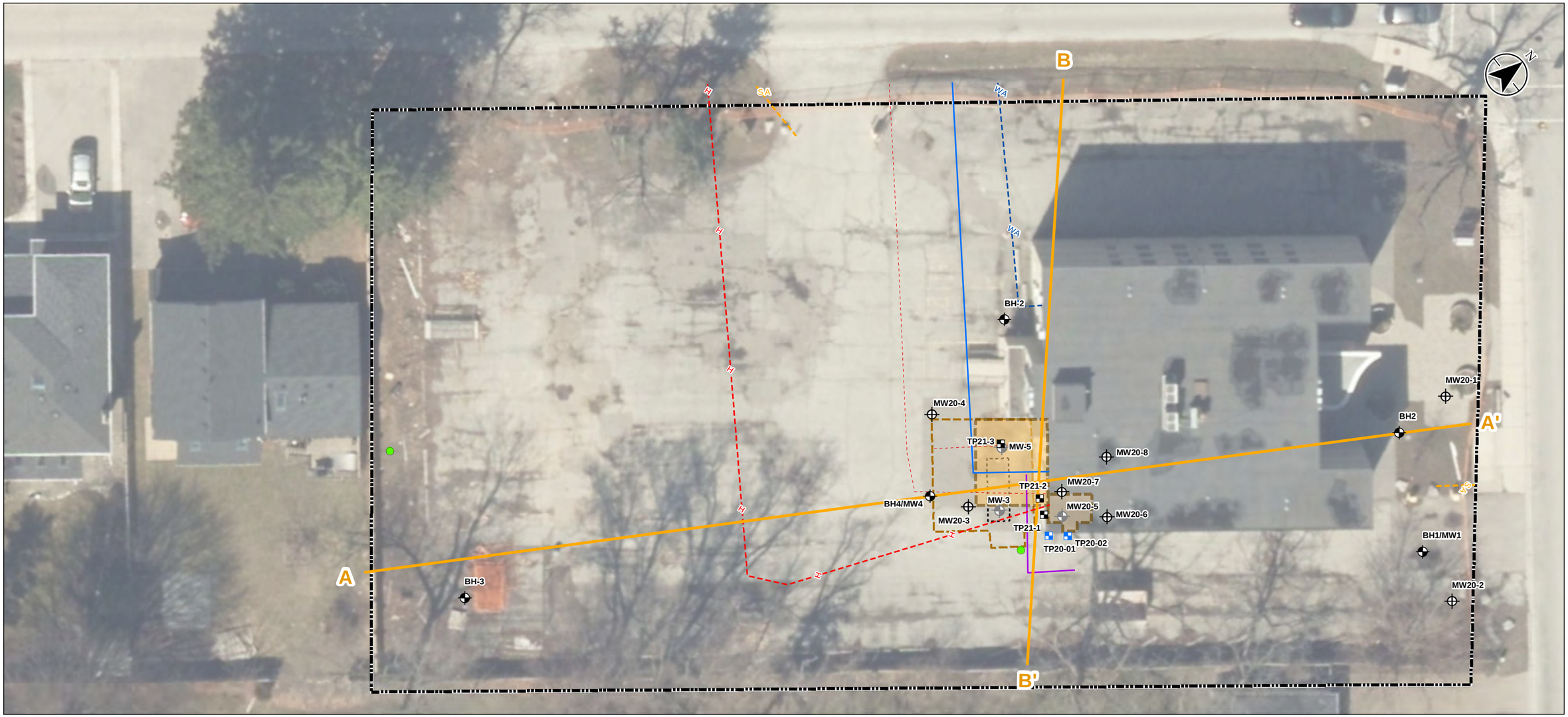
Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-20

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
5c

Title
Summary of Ground Water Analytical Results - Metals, NA, Cl, As, Sb, Se, Hg, Cr(VI), CN-



Legend

- Location of Monitoring Well (Stantec, 2020)
- Location of Monitoring Well (by Others)
- Monitoring Well Decomm (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Damaged Historical Monitoring Well (no data available)
- Approximate Location of Underground Bell Line (Maat, 2017)
- Approximate Location of Underground Gas Line (Maat, 2017)
- Approximate Location of Historical Vent Pipe (Aims, 2013)
- Approximate Location of Hydro
- Approximate Location of Waste Water
- Approximate Location of Water Line
- Cross-Section Location
- Approximate Areal Extent of Interior Excavation (Stantec, October 2020)
- Approximate Areal Extent of Exterior Excavation (Stantec, May/June 2021)
- Approximate Excavation Extents (AiMS Environmental, 2012)
- Approximate Location of Former UST
- Location of Property Boundary

0 5 10 metres

1:275 (At original document size of 11x17)

Notes
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5. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
6. FIP - Fire Insurance Plan
7. UST - Underground Storage Tank

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-10-19

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
6

Title
Site Plan Showing Cross-Section Locations

A
SOUTH

A'
NORTH

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PHCs	< SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
PHCs	< SCS

TP21-2	
	2.9 - 3.2 m (04/14/2021)
PHCs	-
PHC F2 (>C10-C16 range)	2,200
PHC F3 (>C16-C34 range)	1,500

MW20-4	
	3.0 - 3.7 m (01/22/2020)
PHCs	< SCS / < SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
PHCs	< SCS

MW20-2	
	0.4 - 0.8 m (01/22/2020)
PHCs	< SCS

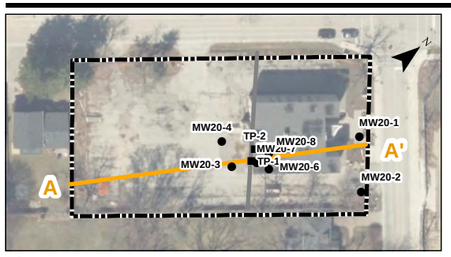
MW20-1	
	2.4 - 3.0 m (01/22/2020)
PHCs	< SCS

Approximately 40 m

MW20-4 (OS 7.10m) | MW20-3 (OS 0.50m) | TP21-3 (OS 3.5m) | TP21-2 (OS 0.50m) | TP21-1 (OS 0.50m) | TP20-01 (OS 1.0m) | MW20-5 (OS 1.12m) | TP20-02 (OS 1.0m) | MW20-7 (OS 0.90m) | MW20-6 (OS 1.57m) | MW20-8 (OS 2.59m) | MW20-2 (OS 12.00m) | MW20-1 (OS 2.09m)

Elevation (m RTD): 101, 100, 99, 98, 97, 96

ASPHALT, SILT, GRAVEL, SAND, SILTY SAND, SILTY GRAVEL, SAND (FILL), CONCRETE, SILT TILL, WOOD, SILTY and SANDY GRAVEL



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils

MW20-7 (OS 0.90m)

Sand

Well ID
(OS - offset)

Stratigraphy

Legend

- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Tested Exceed Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Depth (m BGS) Date (mm/dd/yyyy)

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PHCs	< SCS

Parameter | Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

MECP 2011		
Parameter	Table 2 SCS	Units
PHC F2 (>C10-C16 range)	98	µg/g
PHC F3 (>C16-C34 range)	300	µg/g

Stantec

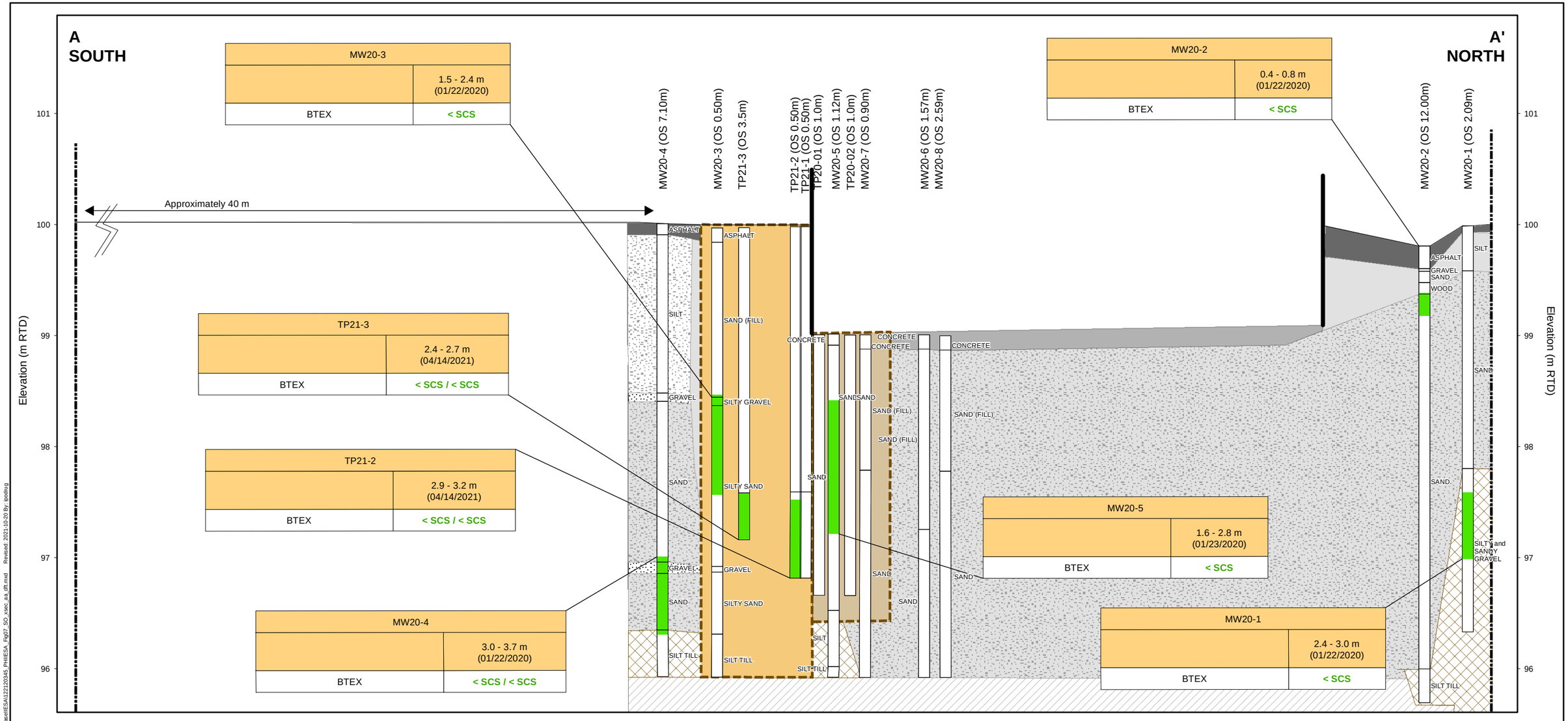
Project Location
Oakville, Ontario

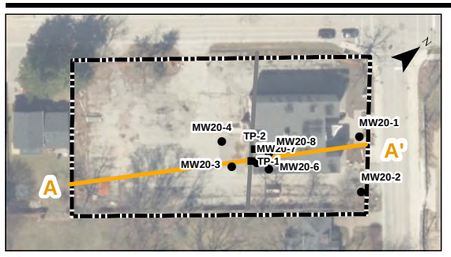
122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
7a

Title
Cross-Section A-A': Summary of Soil Analytical Results - PHCs





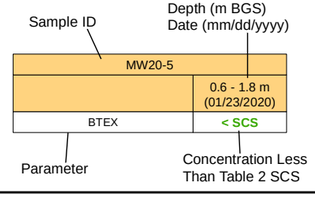
1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

Well ID
(OS - offset)

Stratigraphy

Legend

- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)



5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

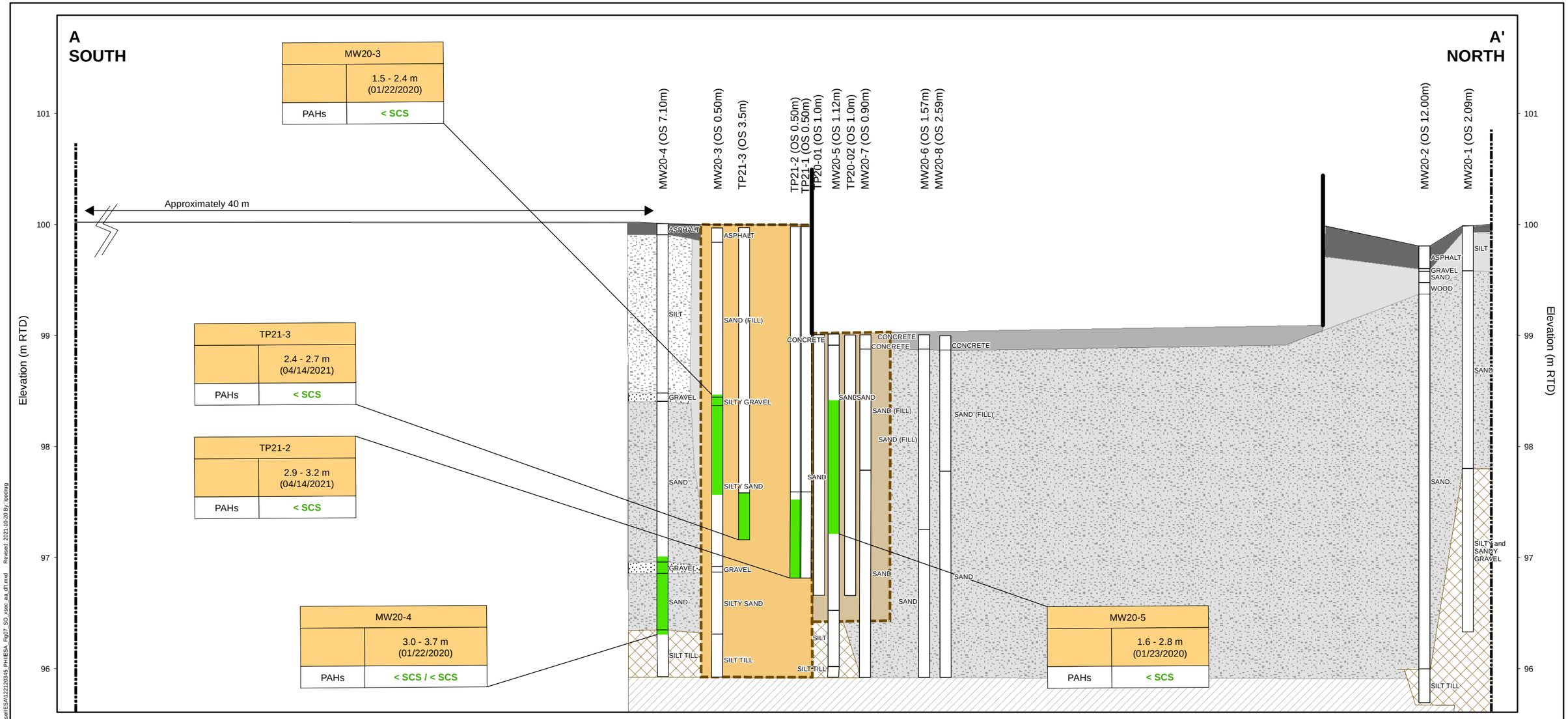
Project Location
Oakville, Ontario

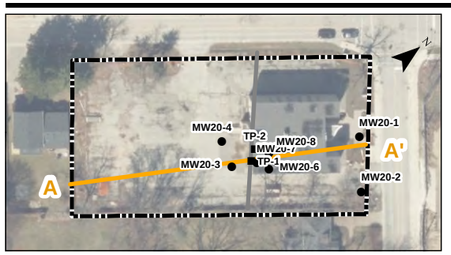
122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
7b

Title
Cross-Section A-A': Summary of Soil Analytical Results - BTEX





1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. PAHs - Polycyclic Aromatic Hydrocarbons

Well ID (OS - offset): MW20-7 (OS 0.90m)

Stratigraphy: Sand

Legend

- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID / Depth (m BGS) Date (mm/dd/yyyy)

MW20-3	1.5 - 2.4 m (01/22/2020)
PAHs	< SCS

Parameter / Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location: Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
7c

Title
Cross-Section A-A': Summary of Soil Analytical Results - PAHs

A **SOUTH**

A' **NORTH**

Elevation (m RTD)

Approximately 40 m

MW20-5	1.0 - 1.6 m (01/23/2020)	1.6 - 2.8 m (01/23/2020)	2.8 - 3.4 m (01/23/2020)	3.4 - 4.0 m (01/23/2020)
Metals	< SCS	< SCS	< SCS	< SCS
Electrical Conductivity	< SCS	< SCS	< SCS	< SCS
Sodium Adsorption Ratio	< SCS	< SCS	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS	< SCS	< SCS
Boron, Hot Water Soluble	< SCS	< SCS	< SCS	< SCS
Chromium, hexavalent	< SCS	< SCS	< SCS	< SCS
Cyanide	< SCS	< SCS	< SCS	< SCS
Mercury	< SCS	1.1	2.4	< SCS

TP21-1	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/14/2021)
Mercury	< SCS	< SCS

TP21-2	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/14/2021)
Mercury	< SCS	< SCS

MW20-3	1.5 - 2.4 m (01/22/2020)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

TP21-3	2.4 - 2.7 m (04/14/2021)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-4	3.0 - 3.7 m (01/22/2020)
Metals	< SCS / < SCS
Electrical Conductivity	< SCS / < SCS
Sodium Adsorption Ratio	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Boron, Hot Water Soluble	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

MW20-4 (OS 7.10m) MW20-3 (OS 0.50m) TP21-3 (OS 3.5m) TP21-2 (OS 0.50m) TP21-1 (OS 0.50m) TP20-01 (OS 1.0m) MW20-5 (OS 1.12m) TP20-02 (OS 1.0m) MW20-7 (OS 0.90m) MW20-6 (OS 1.57m) MW20-8 (OS 2.59m) MW20-2 (OS 12.00m) MW20-1 (OS 2.09m)

MW20-7	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS / < SCS
Arsenic Selenium Antimony	< SCS	< SCS / < SCS
Mercury	< SCS	< SCS / < SCS

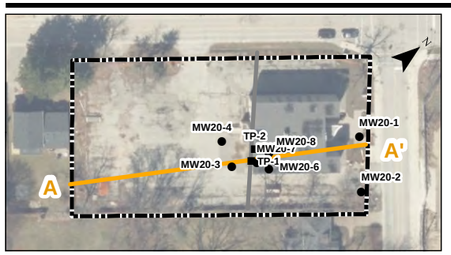
MW20-8	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

TP20-02	1.0 - 2.0 m (10/21/2020)
Mercury	< SCS

TP20-01	0.0 - 1.0 m (10/21/2020)	1.0 - 2.0 m (10/21/2020)
Mercury	< SCS	< SCS

MW20-6	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

ASPHALT, SILT, SAND (FILL), GRAVEL, SILTY GRAVEL, SAND, SILTY SAND, SILT TILL, CONCRETE, SAND (FILL), GRAVEL, SAND, SILTY SAND, SILT TILL, SILT, SAND, SILT TILL, ASPHALT, GRAVEL, SAND, WOOD, SILT, SAND, SILTY and SANDY GRAVEL, SAND, SILT TILL



MW20-7 (OS 0.90m)

Well ID (OS - offset)

Sand

Stratigraphy

1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. EC and SAR concentrations in soil are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act

Legend

- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Tested Exceed Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID — Depth (m BGS) Date (mm/dd/yyyy)

MW20-6	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

Parameter — Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

MECP 2011		
Parameter	Table 2 SCS	Units
Mercury	0.27	µg/g

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
7d

Title
Cross-Section A-A': Summary of Soil Analytical Results - Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, EC, SAR, CN-

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

MW20-4 (OS 8.11m) | TP21-3 (OS 4.00m) | MW20-8 (OS 4.11m) | TP21-2 (OS 1.12m) | MW20-7 (OS 1.13m) | MW20-3 (OS 5.30m) | MW20-6 (OS 4.48m) | TP21-1 (OS 1.12m) | MW20-5 (OS 1.30m) | TP20-01 (OS 1.00m) | TP20-02 (OS 1.40m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SILT TILL
SAND (FILL)
SILTY GRAVEL
SILTY SAND

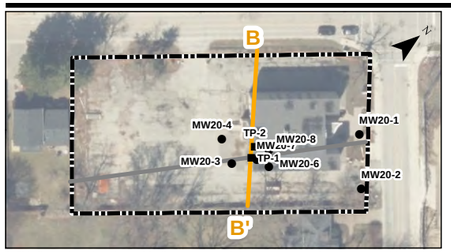
TP21-3	
	2.4 - 2.7 m (04/14/2021)
PHCs	< SCS

TP21-2	
	2.9 - 3.2 m (04/14/2021)
PHCs	-
PHC F2 (>C10-C16 range)	2,200
PHC F3 (>C16-C34 range)	1,500

MW20-4	
	3.0 - 3.7 m (01/22/2020)
PHCs	< SCS / < SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PHCs	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
PHCs	< SCS



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. PHCs - Petroleum Hydrocarbons

MW20-4 (OS 3.55m)

Well ID
(OS - offset)

Sand

Stratigraphy

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Tested Exceed Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Depth (m BGS) Date (mm/dd/yyyy)

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PHCs	< SCS

Parameter | Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

MECP 2011		
Parameter	Table 2 SCS	Units
PHC F2 (>C10-C16 range)	98	µg/g
PHC F3 (>C16-C34 range)	300	µg/g

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
8a

Title
Cross-Section B-B': Summary of Soil Analytical Results - PHCs

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

MW20-4 (OS 8.11m)
TP21-3 (OS 4.00m)
MW20-8 (OS 4.11m)
TP21-2 (OS 1.12m)
MW20-7 (OS 1.13m)
MW20-3 (OS 5.30m)
MW20-6 (OS 4.48m)
TP21-1 (OS 1.12m)
MW20-5 (OS 1.30m)
TP20-01 (OS 1.00m)
TP20-02 (OS 1.40m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SAND (FILL)
SILT TILL
SILTY GRAVEL
SILTY SAND

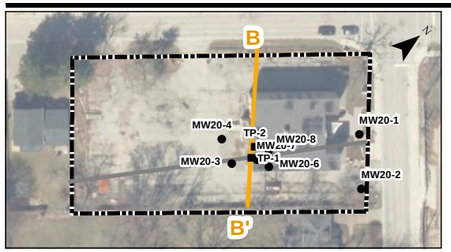
TP21-3	
	2.4 - 2.7 m (04/14/2021)
BTEX	< SCS

MW20-4	
	3.0 - 3.7 m (01/22/2020)
BTEX	< SCS / < SCS

TP21-2	
	2.9 - 3.2 m (04/14/2021)
BTEX	< SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
BTEX	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
BTEX	< SCS



MW20-4 (OS 3.55m)
Sand

Well ID
(OS - offset)

Stratigraphy

1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID
Depth (m BGS)
Date (mm/dd/yyyy)

MW20-5	
	0.6 - 1.8 m (01/23/2020)
BTEX	< SCS

Parameter
Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
8b

Title
Cross-Section B-B': Summary of Soil Analytical Results - BTEX

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

MW20-4 (OS 8.11m) | TP21-3 (OS 4.00m) | MW20-8 (OS 4.11m) | TP21-2 (OS 1.12m) | MW20-7 (OS 1.13m) | MW20-3 (OS 5.30m) | MW20-6 (OS 4.48m) | TP21-1 (OS 1.12m) | MW20-5 (OS 1.30m) | TP20-01 (OS 1.00m) | TP20-02 (OS 1.40m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SAND (FILL)
SILT TILL
SILTY SAND
SILTY GRAVEL

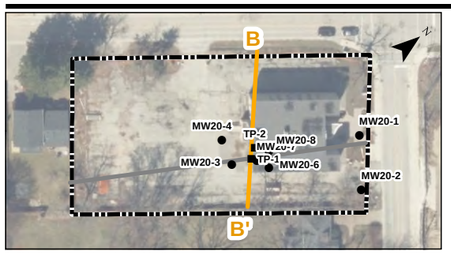
TP21-2	
	2.9 - 3.2 m (04/14/2021)
PAHs	< SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
PAHs	< SCS

MW20-4	
	3.0 - 3.7 m (01/22/2020)
PAHs	< SCS / < SCS

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PAHs	< SCS

MW20-5	
	1.6 - 2.8 m (01/23/2020)
PAHs	< SCS



MW20-4 (OS 3.55m)
Sand

Well ID (OS - offset)

Stratigraphy

1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. PAHs - Polycyclic Aromatic Hydrocarbons

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Depth (m BGS) Date (mm/dd/yyyy)

MW20-3	
	1.5 - 2.4 m (01/22/2020)
PAHs	< SCS

Parameter | Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
8c

Title
Cross-Section B-B': Summary of Soil Analytical Results - PAHs

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

MW20-3	
	1.5 - 2.4 m (01/22/2020)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-8		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

TP21-3	
	2.4 - 2.7 m (04/14/2021)
Metals	< SCS
Electrical Conductivity	< SCS
Sodium Adsorption Ratio	< SCS
Arsenic Selenium Antimony	< SCS
Boron, Hot Water Soluble	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-7		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS / < SCS
Arsenic Selenium Antimony	< SCS	< SCS / < SCS
Mercury	< SCS	< SCS / < SCS

TP21-2		
	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/14/2021)
Mercury	< SCS	< SCS

MW20-4	
	3.0 - 3.7 m (01/22/2020)
Metals	< SCS / < SCS
Electrical Conductivity	< SCS / < SCS
Sodium Adsorption Ratio	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Boron, Hot Water Soluble	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

MW20-4 (OS 8.11m)
TP21-3 (OS 4.00m)
MW20-8 (OS 4.11m)
TP21-2 (OS 1.12m)
MW20-7 (OS 1.13m)
MW20-3 (OS 5.30m)
MW20-6 (OS 4.48m)
TP21-1 (OS 1.12m)
MW20-5 (OS 1.30m)
TP20-01 (OS 1.00m)
TP20-02 (OS 1.40m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SAND (FILL)
SILT TILL
SILTY GRAVEL
SILTY SAND

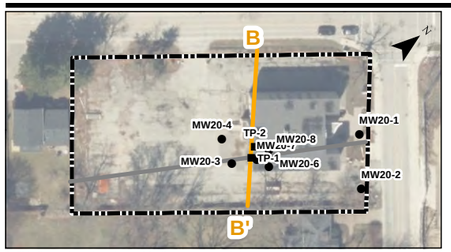
TP20-01		
	0.0 - 1.0 m (10/21/2020)	1.0 - 2.0 m (10/21/2020)
Mercury	< SCS	< SCS

TP21-1		
	2.0 - 2.3 m (04/14/2021)	2.9 - 3.2 m (04/12/2021)
Mercury	< SCS	< SCS

TP20-02	
	0.0 - 1.0 m (10/21/2020)
Mercury	< SCS

MW20-6		
	1.6 - 2.2 m (04/03/2020)	2.8 - 3.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

MW20-5				
	1.0 - 1.6 m (01/23/2020)	1.6 - 2.8 m (01/23/2020)	2.8 - 3.4 m (01/23/2020)	3.4 - 4.0 m (01/23/2020)
Metals	< SCS	< SCS	< SCS	< SCS
Electrical Conductivity	< SCS	< SCS	< SCS	< SCS
Sodium Adsorption Ratio	< SCS	< SCS	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS	< SCS	< SCS
Boron, Hot Water Soluble	< SCS	< SCS	< SCS	< SCS
Chromium, hexavalent	< SCS	< SCS	< SCS	< SCS
Cyanide	< SCS	< SCS	< SCS	< SCS
Mercury	< SCS	1.1	2.4	< SCS



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
8. EC and SAR concentrations in soil are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act

MW20-4 (OS 3.55m)
Well ID (OS - offset)
Sand
Stratigraphy

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

- Soil Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)
- One or More Soil Parameters Tested Exceed Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID
Depth (m BGS)
Date (mm/dd/yyyy)

MW20-6		
Date	0.6 - 1.2 m (04/03/2020)	1.8 - 2.4 m (04/03/2020)
Metals	< SCS	< SCS
Arsenic Selenium Antimony	< SCS	< SCS
Mercury	< SCS	< SCS

Parameter
Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

MECP 2011		
Parameter	Table 2 SCS	Units
Mercury	0.27	µg/g

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/20/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
8d

Title
Cross-Section B-B': Summary of Soil Analytical Results - Metals, As, Sb, Se, Hg, Cr(VI), B-HWS, EC, SAR, CN-

A
SOUTH

A'
NORTH

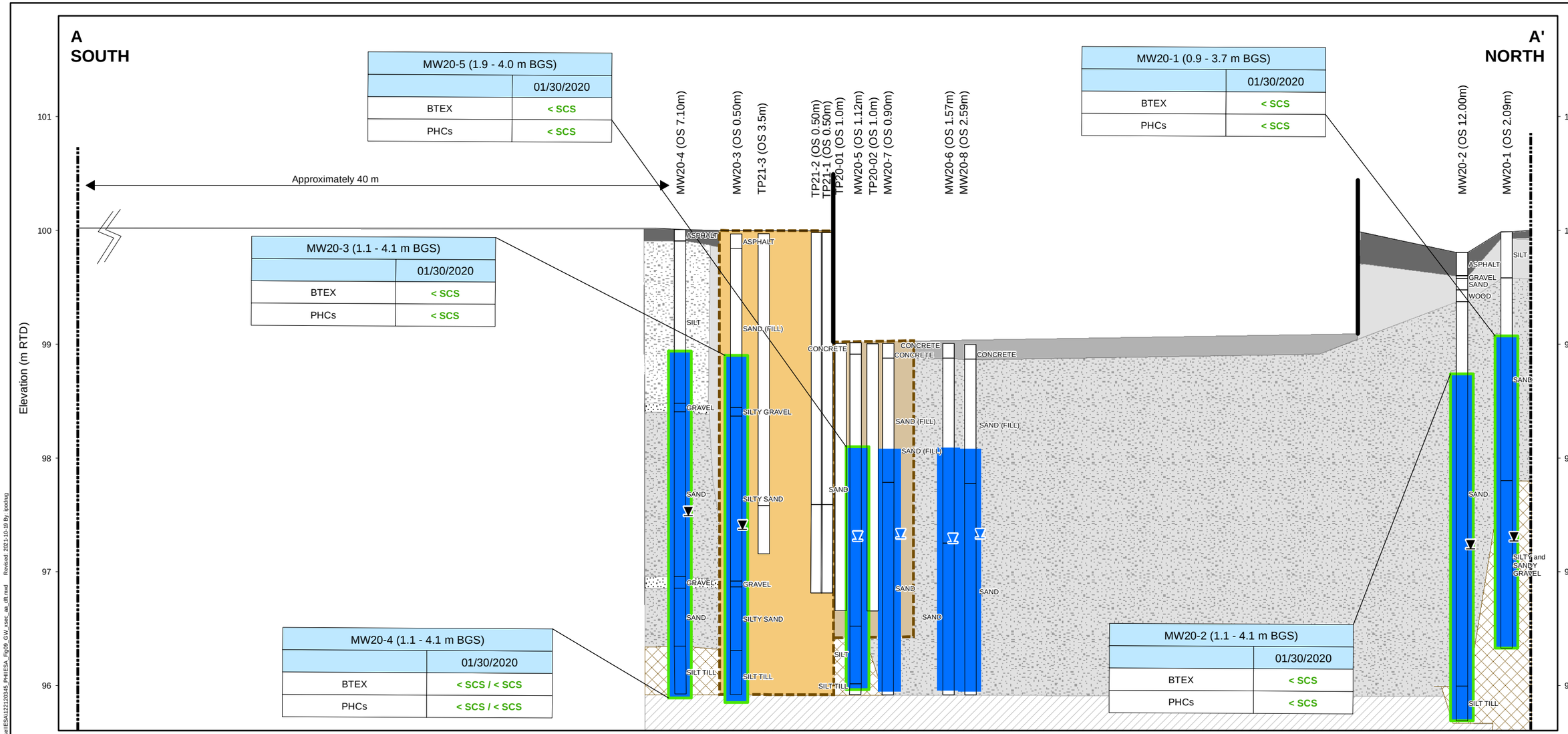
MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

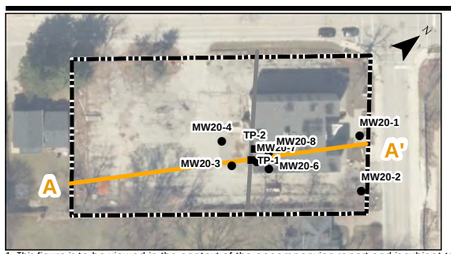
MW20-1 (0.9 - 3.7 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

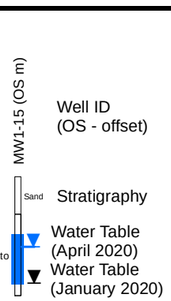
MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS / < SCS
PHCs	< SCS / < SCS

MW20-2 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS



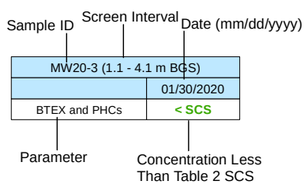


1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PHCs - Petroleum Hydrocarbons
10. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes



Legend

- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)



5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
9a

Title
Cross-Section A-A': Summary of Ground Water Analytical Results - BTEX and PHCs

A
SOUTH

A'
NORTH

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

Approximately 40 m

MW20-4 (OS 7.10m)
MW20-3 (OS 0.50m)
TP21-3 (OS 3.5m)
TP21-2 (OS 0.50m)
TP21-1 (OS 0.50m)
TP20-01 (OS 1.0m)
MW20-5 (OS 1.12m)
TP20-02 (OS 1.0m)
MW20-7 (OS 0.90m)
MW20-6 (OS 1.57m)
MW20-8 (OS 2.59m)
MW20-2 (OS 12.00m)
MW20-1 (OS 2.09m)

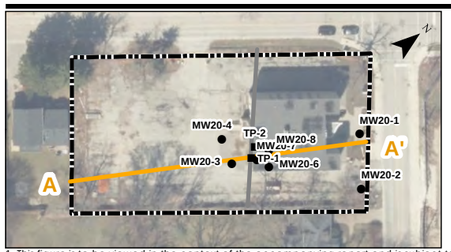
Elevation (m RTD)

101
100
99
98
97
96

ASPHALT
SILT
GRAVEL
SAND
SILT TILL
SAND (FILL)
SILTY GRAVEL
SILTY SAND
CONCRETE
SILT
SAND
WOOD
SILTY and SANDY GRAVEL

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS / < SCS

MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
PAHs	< SCS



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PAHs - Polycyclic Aromatic Hydrocarbons

MW1-15 (OS m)
Well ID (OS - offset)
Sand
Stratigraphy
Water Table (April 2020)
Water Table (January 2020)
Well Screen

Legend
- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

Parameter | Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
9b

Title
Cross-Section A-A': Summary of Ground Water Analytical Results - PAHs

A
SOUTH

A'
NORTH

Approximately 40 m

Elevation (m RTD)

MW20-5 (1.9 - 4.0 m BGS)			
	01/30/2020	04/16/2020	04/30/2020
Metals	< SCS	< SCS	-
Sodium	< SCS	< SCS	-
Chloride	< SCS	-	-
Arsenic Selenium Antimony	< SCS	< SCS	-
Chromium, hexavalent	< SCS	< SCS	-
Cyanide	< SCS	-	-
Mercury	NR	< SCS	< SCS / < SCS

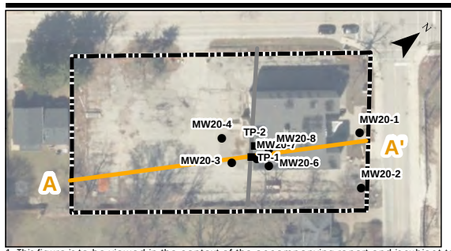
MW20-6 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS / < SCS	-
Sodium	< SCS / < SCS	-
Arsenic Selenium Antimony	< SCS / < SCS	-
Chromium, hexavalent	< SCS / < SCS	-
Mercury	< SCS / < SCS	< SCS

MW20-8 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS / < SCS
Sodium	< SCS / < SCS
Chloride	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

MW20-7 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS



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2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. Sodium and chloride concentrations in ground water are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act

MW1-15 (OS m)
Well ID (OS - offset)
Sand
Stratigraphy
Water Table (April 2020)
Water Table (January 2020)
Well Screen

Legend
- Building Footprint Extents
- Location of Property Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

Parameter
Concentration Does Not Exceed Table 2 SCS

5x Vertical Exaggeration
0 3.5 7 m
1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
9c

Title
Cross-Section A-A': Summary of Ground Water Analytical Results - Metals, Na, Cl, As, Sb, Se, Hg, Cr(VI), CN-

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

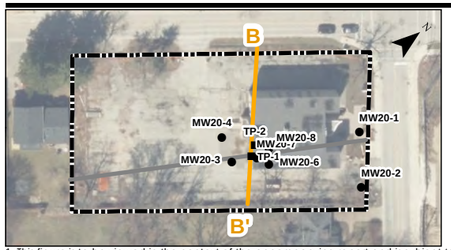
MW20-4 (OS 8.11m)
TP21-3 (OS 4.00m)
MW20-8 (OS 4.11m)
TP21-2 (OS 1.12m)
MW20-7 (OS 1.13m)
MW20-3 (OS 5.30m)
MW20-6 (OS 4.48m)
TP21-1 (OS 1.12m)
MW20-5 (OS 1.30m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SAND (FILL)
SILTY SAND
SILTY GRAVEL
SILT TILL

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS / < SCS
PHCs	< SCS / < SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS

MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
BTEX	< SCS
PHCs	< SCS



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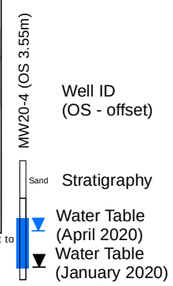
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PHCs - Petroleum Hydrocarbons
10. BTEX - Benzene, Toluene, Ethylbenzene, Xylenes



Well ID
(OS - offset)

Stratigraphy

Water Table
(April 2020)

Water Table
(January 2020)

Well Screen

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
BTEX and PHCs	< SCS

Parameter

Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
10a

Title
Cross-Section B-B': Summary of Ground Water Analytical Results - BTEX and PHCs

\\stt1224-f02\work_group\01221\active\122120345\03_data\gis_cad\gismxds\Remediation\report_figures\PhaseII\ESA\122120345_PHIIESA_Fig10_GW_xsec_bb_dft.mxd Revised: 2021-10-19 By: ipodrug

B
WEST

B'
EAST

Elevation (m RTD)

101
100
99
98
97
96

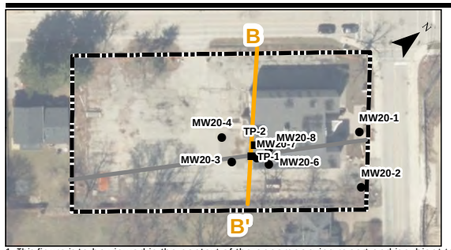
MW20-4 (OS 8.11m) | TP21-3 (OS 4.00m) | MW20-8 (OS 4.11m) | TP21-2 (OS 1.12m) | MW20-7 (OS 1.13m) | MW20-3 (OS 5.30m) | MW20-6 (OS 4.48m) | TP21-1 (OS 1.12m) | MW20-5 (OS 1.30m)

ASPHALT
SILT
CONCRETE
GRAVEL
SAND
SAND (FILL)
SILTY GRAVEL
SILTY SAND
SILT TILL

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS / < SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

MW20-5 (1.9 - 4.0 m BGS)	
	01/30/2020
PAHs	< SCS



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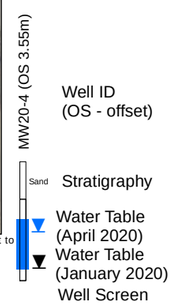
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. PAHs - Polycyclic Aromatic Hydrocarbons



Well ID (OS - offset)
Stratigraphy
Water Table (April 2020)
Water Table (January 2020)
Well Screen

Legend
- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
PAHs	< SCS

Parameter | Concentration Less Than Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
10b

Title
Cross-Section B-B': Summary of Ground Water Analytical Results - PAHs

B
WEST

B'
EAST

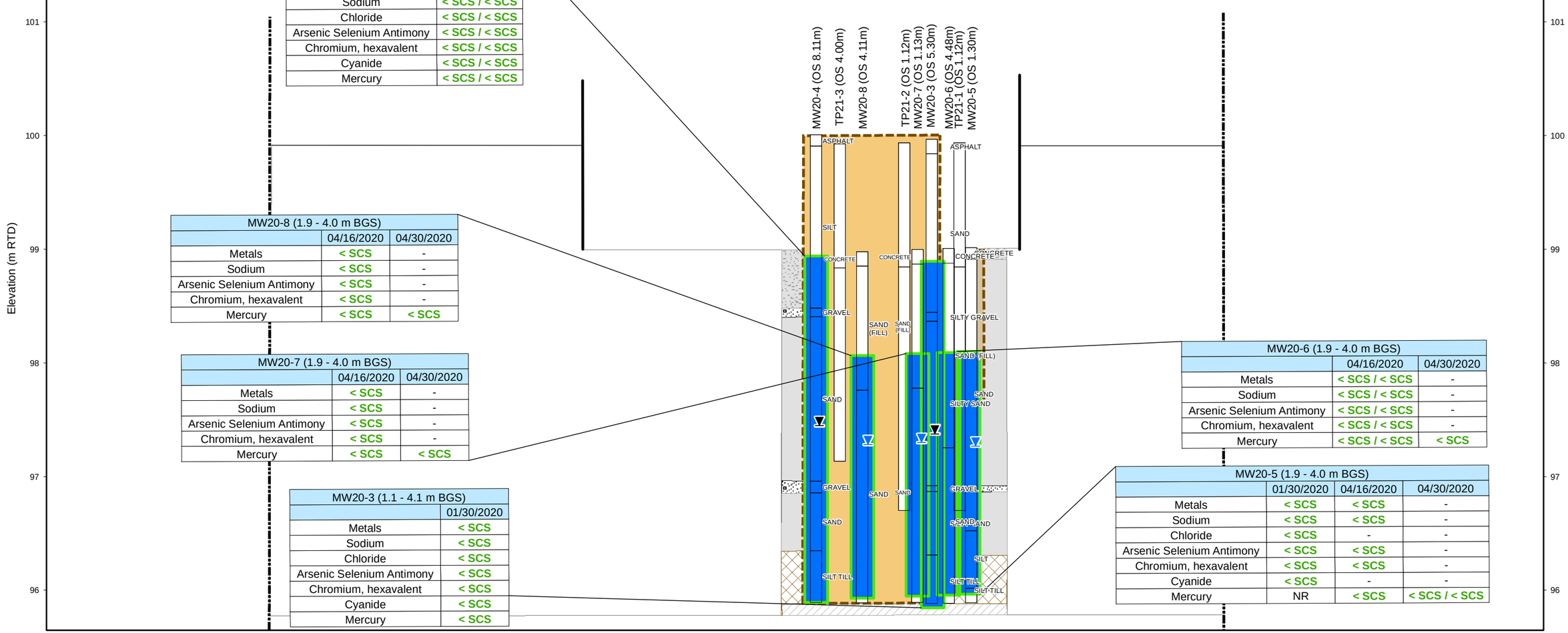
Elevation (m RTD)

MW20-4 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS / < SCS
Sodium	< SCS / < SCS
Chloride	< SCS / < SCS
Arsenic Selenium Antimony	< SCS / < SCS
Chromium, hexavalent	< SCS / < SCS
Cyanide	< SCS / < SCS
Mercury	< SCS / < SCS

MW20-8 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS

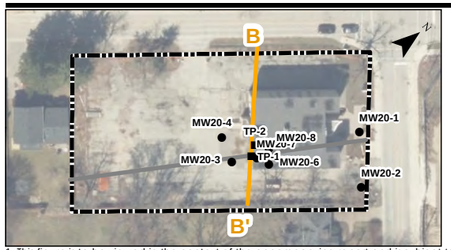
MW20-7 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS	-
Sodium	< SCS	-
Arsenic Selenium Antimony	< SCS	-
Chromium, hexavalent	< SCS	-
Mercury	< SCS	< SCS

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS



MW20-6 (1.9 - 4.0 m BGS)		
	04/16/2020	04/30/2020
Metals	< SCS / < SCS	-
Sodium	< SCS / < SCS	-
Arsenic Selenium Antimony	< SCS / < SCS	-
Chromium, hexavalent	< SCS / < SCS	-
Mercury	< SCS / < SCS	< SCS

MW20-5 (1.9 - 4.0 m BGS)			
	01/30/2020	04/16/2020	04/30/2020
Metals	< SCS	< SCS	-
Sodium	< SCS	< SCS	-
Chloride	< SCS	-	-
Arsenic Selenium Antimony	< SCS	< SCS	-
Chromium, hexavalent	< SCS	< SCS	-
Cyanide	< SCS	-	-
Mercury	NR	< SCS	< SCS / < SCS



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.
7. Water levels in MW20-1 to MW20-4 not monitored in April 2020
8. Table 2 - All Types of Property Use - Coarse Textured Soils
9. Sodium and chloride concentrations in ground water are related to the application of salt to surfaces for the safety of pedestrian and vehicle traffic under conditions of snow and ice. They are deemed not to be exceeded for the purpose of Part XV.1 of the Act

Well ID
(OS - offset)

Stratigraphy

Water Table
(April 2020)

Water Table
(January 2020)

Well Screen

Legend

- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, October 2020)
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock

Ground Water Parameters Tested Met Regulatory Standards (2011 MECP Table 2 SCS)

Sample ID | Screen Interval | Date (mm/dd/yyyy)

MW20-3 (1.1 - 4.1 m BGS)	
	01/30/2020
Metals	< SCS
Sodium	< SCS
Chloride	< SCS
Arsenic Selenium Antimony	< SCS
Chromium, hexavalent	< SCS
Cyanide	< SCS
Mercury	< SCS

Parameter

Concentration Does Not Exceed Table 2 SCS

5x Vertical Exaggeration

0 3.5 7 m

1:175 (At original document size of 11x17)

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 10/19/2021

Client/Project
PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
10c

Title
Cross-Section B-B': Summary of Ground Water Analytical Results - Metals, Na, Cl, As, Sb, Se, Hg, Cr(VI), CN-

BIRD RECEPTORS

SOIL INGESTION / DERMAL CONTACT
FOOD / PREY INGESTION
AIR INHALATION OF VAPOURS

WIND EROSION

ADULT VISITOR / CONSTRUCTION WORKER
DERMAL CONTACT / INGESTION
AIR INHALATION OF PARTICLES
AIR INHALATION OF VAPOURS

SOIL INGESTION / DERMAL CONTACT
FOOD / PREY INGESTION
AIR INHALATION OF VAPOURS

MAMMAL RECEPTORS

ORNAMENTAL PLANTS

SOIL INGESTION / DERMAL CONTACT/ PLANT UPTAKE
PLANT UPTAKE

Unoccupied Building

Building Basement

PHCS IN SOIL

SOIL INVERTEBRATES

SOIL INGESTION / DERMAL CONTACT
PLANT UPTAKE
PLANT INGESTION

LOW CONCENTRATIONS OF MERCURY IN SOIL

NOT TO SCALE

Legend

- Adult Visitor
- Construction Worker
- Groundwater Level
- Excavation

Stantec

Project Location
Oakville, Ontario

122120345 REVA
Prepared by IP on 2021-08-11

Client/Project
PHASET TWO ENVIRONMENTAL SITE ASSESSMENT
358 REYNOLDS STREET
OAKVILLE, ONTARIO

Figure No.
11

Title
Phase Two Conceptual Site Model

APPENDICES

APPENDIX A GENERAL

A.1 SAMPLING AND ANALYSIS PLAN

Sampling and Analysis Plan
358 Reynolds Street
Oakville, Ontario

October 25, 2021

Prepared for:

Transmetro Limited
1240 Bay Street, Suite 306
Toronto ON M5R 2A7

Prepared by:

Stantec Consulting Ltd.
675 Cochrane Drive, Suite 300
Markham ON L3R 0B8

Project No.: 122120345

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LIST OF APPENDICES

1.0 INTRODUCTION

Transmetro Limited (the Client) retained Stantec Consulting Ltd. (Stantec) to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 358 Reynolds Street in Oakville, Ontario, hereinafter referred to as the "Phase One Property", the "Phase Two Property" or the "Site". The Phase Two ESA was conducted to characterize soil and ground water at the areas of potential environmental concern (APECs) identified as part of a Phase One ESA completed by Stantec for the contaminants of concern (COCs) associated with identified potentially contaminating activities (PCAs) and was completed consistent with the requirements of Ontario Regulation (O.Reg.)153/04. Soil and ground water quality were assessed in the context of the applicable Ministry of the Environment, Conservation and Parks (MECP) (MOE, 2011) SCS as referenced by O.Reg.153/04.

This document is the Sampling and Analysis Plan (SAP) for the Phase Two ESA. The preparation and inclusion of a SAP is a requirement of both the Canadian Standards Association Z769-00 Standard for conducting Phase II ESAs and O.Reg.153/04.

The SAP is a planning document and comprises four main parts:

Objectives Setting - The study purpose is defined as are the required quantity and quality of the environmental data to fulfill the study purpose;

Program Design & Planning - The location, type, number and timing of investigation sampling and measurements are developed;

Methods Selection & Specification - The methods used for sampling and measurement are selected and described; and

Quality Assessment - The procedures are specified to continuously confirm the design and mechanical components of the SAP are sufficient to meet the project objectives.

In Ontario, Phase Two ESAs follow a progression of study that requires the following understanding of key definitions, concepts and activities.

1. A "contaminant" is defined in the *Ontario Environmental Protection Act* (R.S.O. 1990) as any solid, liquid, gas, odor, heat, sound, vibration, radiation or combination of any of them resulting directly or indirectly from human activities that causes or may cause an adverse effect.

2. "contaminants of concern" are then defined in the Regulation as follows:

    a. One or more contaminants found on, in or under a property at a concentration that exceeds the applicable site condition standards for the property, or

    b. One or more contaminants found on, in or under a property for which no applicable site condition standard is prescribed under Part IX (Site Condition Standards and Risk Assessment) and which are associated with PCA.

3. A Phase One ESA consists of an historical records review, interviews with persons knowledgeable of a property's past and current use, and a site reconnaissance to identify PCAs on the property or properties within the Phase One Study Area with the potential to result in Areas of Potential Environmental Concern (APECs) on the property. Sample collection is generally not performed as part of a Phase One ESA. For each APEC identified, the Qualified Person (QP_{ESA}) develops a Conceptual Site Model (CSM) that describes the understanding (including inferences) of the type(s) of contaminants released, the release location(s), the media contaminated, and the contaminant fate and transport mechanisms. The CSM forms the "mental picture" of the APECs from which the Phase Two ESA sampling program is developed to characterize the APECs.

4. The Phase Two ESA is conducted to characterize each APEC. The SAP is the planning document that is prepared before field investigations commence. The SAP directs how the field investigations are conducted. As field investigations proceed, the site understanding evolves and thus, the project objectives, the SAP, and the nature of the field investigations evolve in an iterative fashion. The CSM is updated at the conclusion of the Phase Two ESA to document the actual site conditions encountered.

O.Reg.153/04 specifies numerous technical requirements for the planning, implementation and documentation of Phase Two ESAs in Ontario where the proponent plans to obtain an RSC. Many of these regulatory requirements are highlighted throughout this SAP to remind the reader of the importance of their inclusion in the SAP.

O.Reg.153/04 also requires that the SAP and Phase Two ESA be documented in sufficient detail to allow a third party to review the adequacy of the methods used.

2.0 PROJECT BACKGROUND

2.1 PROJECT OVERVIEW

As indicated in Section 1.0, Transmetro Limited (the Client) retained Stantec Consulting Ltd. (Stantec) to conduct a Phase Two Environmental Site Assessment (ESA) for the property located at 358 Reynolds Street in Oakville, Ontario, hereinafter referred to as the "Phase One Property", the “Phase Two Property” or the “Site”. The Phase Two ESA was conducted to characterize soil and ground water in areas of the potential environmental concern (APECs) identified as part of a Phase One ESA completed by Stantec for the contaminants of concern (COCs) associated with identified potentially contaminating activities (PCAs) and was completed consistent with the requirements of O.Reg.153/04. Soil and ground water quality were assessed in the context of the applicable Ministry of the Environment, Conservation and Parks (MECP) (MOE, 2011) SCS as referenced by O.Reg.153/04.

The current land use at the Site, as defined by O.Reg.153/04, is commercial. The Site is currently occupied by a vacant three-storey former Medical Arts building and its associated asphalt parking lot. The property was first used as residential apartments, and later converted to a medical office. Future property use for the Site is planned to be residential.

This SAP describes the planning and methodologies associated with work conducted at the Phase Two Property by Stantec.

2.1 PHYSICAL IMPEDIMENTS

The Regulation requires that the SAP include a description of any physical impediments that interfered with or limited the ability to conduct the sampling and analysis program.

Due to the presence of the current three-storey building on-site, four of the boreholes were placed within the basement of the building to assess the soil and groundwater quality in a limited area of potential environmental concern underneath the site building.

There was no denial of access or other impediment during the Phase Two ESA. The overall objectives of the investigation and assessment of APEC #1, #2, and #3 were reviewed and met. APEC #4 was not formally assessed, as per paragraph 1 of section 49.1 of Ontario Regulation 153/04, further assessment of the parking lots of the Phase Two Property for EC and SAR in soil, and sodium and chloride in ground water, is not considered warranted due to the application of salt/deicing compounds for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

3.0 PROJECT OBJECTIVES AND DATA QUALITY OBJECTIVES

Project objectives are statements of the "bigger picture" questions to be answered or problems to be solved, usually expressed in terms of a statement that is readily understandable to the public (e.g., "Is the property contaminated?").

Data Quality Objectives (DQOs) specify the quantity and quality of the environmental data that is required to support project decisions or conclusions (alternate wording is that DQOs specify the tolerable level of uncertainty in decision-making). In turn, DQOs are used to specify the required quality of the measurements by specifying tolerable limits for the following Data Quality Indicators (DQIs): precision, accuracy, representativeness, comparability, and completeness (the "PARCC" criteria).

DQOs are iterative in nature and evolve as site characterization proceeds. Initially DQOs usually focus on assessing for the presence/absence of contamination at each of the APECs identified in the Phase One ESA. If the presence of contamination is confirmed, the DQOs will evolve to delineation of the lateral and vertical extents of soil contamination, delineation of the limits and plume stability state of ground water contamination, and confirmation of the effectiveness of remedial measures, if implemented.

The following sections present the project objectives and DQOs set for the Site.

3.1 PROJECT OBJECTIVES

The general objectives of the Phase Two ESA are to:

- Adequately assess each APEC identified in the Phase One ESA, or as discovered during the conduct of the Phase Two ESA, where contaminants may be present in land or water on, in or under the property;
- To implement a quality assurance (QA) program designed to reduce errors and bias in sampling and analysis through implementation of assessment and control measures intended to confirm data are useful, appropriate, and accurate in the determination of whether the soil, ground water, and sediment quality at a property meet applicable site condition standards or the standards specified in a risk assessment; and
- Conduct the Phase Two ESA to meet the requirements of the Regulation.

The primary project objective is to obtain an RSC for the Site. The soil and ground water conditions will be assessed to the MECP Table 2 Site Condition Standards (SCS) for residential/parkland/institutional land use in a potable ground water setting with coarse textured soils (MOE, 2011a).

Specific project objectives that have been established to fulfill the primary project objective (i.e., file an RSC) are to:

- Characterize the concentrations of contaminants in the surface (<1.5 m below ground surface [m BGS]) and sub-surface soils (>1.5 m BGS) on the Site.
- Characterize contaminant concentrations in ground water beneath the Site.
- Delineate the lateral and vertical extent of contaminants on and beneath the Site.
- Assess the stability of ground water impacts identified at the Site.
- Determine if soil or ground water impacts identified at the Site have the potential to extend off-site.

3.2 DATA QUALITY OBJECTIVES

For convenience, the DQOs have been organized by the primary PARCC criteria to which Stantec considers specific DQOs relate. Given there can be overlap between project objectives, DQOs, DQIs, and technical specifications, it is recognized that different practitioners may organize the DQOs differently. DQOs and DQIs can be thought of as “rules” that define what is considered acceptable work/results. The standard operating procedure (SOP) for QA/QC, presented herein, provides further description for how each of the PARCC criteria is assessed.

3.2.1 Precision

The following DQOs have been established for precision.

- The relative percent difference (RPD) between parent and field duplicate or laboratory replicate samples will be calculated. The following screening-level acceptance criteria (BV, 2016) will be applied using guidance from BV (BV, 2016):
  - PAHs; RPD ≤ 40% for soil, ≤ 30% for ground water.
  - PHCs; RPD ≤ 30% for soil and ground water.
  - VOCs; RPD ≤ 50% for soil, ≤ 30% for ground water.
  - Metals and Inorganics; RPD ≤ 30% for soil, ≤ 20% for ground water.
  - Available Boron; RPD ≤ 40% for soil.
  - Hexavalent Chromium, chloride and cyanide; RPD ≤ 35% for soil.
  - Electrical Conductivity; RPD ≤ 10% for soil.
- Water level and interface probe measurements will be recorded to the nearest centimetre (typical level of precision for elevation survey).

- Field headspace measurements are typically one-time readings and cannot be repeated to assess precision.

Should a situation arise where attaining these RPDs or precision indicators is challenging, alternate analytical approaches will be assessed from the scientific literature, in consultation with the analytical laboratory.

3.2.2 Accuracy

The following DQOs have been established for accuracy.

- Laboratory analyses for target parameters will have laboratory reported detection limits that are less than the applicable site condition standards, preferably by at least ten times. This is preferred for non-target parameters as well, but not required.
- Laboratory analyses will have surrogate recoveries (%R) that meet the acceptance criteria established by the laboratory.
- Field headspace screening instruments will be calibrated as follows:
  - PID: 0 (ambient air) to 100 parts per million by volume (ppmv) (isobutylene span gas).
  - Combustible vapor detector: 0 ppmv (ambient air) to 400 ppmv (hexane span gas).
- Water Level Meter and Interface Probe: no criterion established for these direct measurements, apart from not using damaged meters (e.g., no use of measuring tapes that may have been stretched, cut, torn, or cracked).
- The reference elevations for monitoring wells (i.e., top of pipe) will be surveyed using a temporary benchmark. Accuracy within approximately 10% of the anticipated water level contouring interval is generally satisfactory, with the need for higher levels of accuracy potentially required for coarse sands and higher permeability aquifers (i.e., soils with low horizontal hydraulic gradients).

3.2.3 Representativeness

The following DQOs have been established for representativeness.

- Each area where a contaminant is confirmed present at concentrations greater than the applicable SCS will be assumed contaminated from that sampling location outward the entire distance to the nearest sampling location that meets the SCS, in both the lateral and vertical dimension.
- Analytical results will not be accepted if the sample was not analyzed within its holding time. The results may be accepted, and qualified as “estimated”, provided the results are deemed by the QP_{ESA} to be well above or well below the applicable SCS, and/or the COCs are considered unlikely to change significantly in concentration in the sample container outside the holding time (e.g., metals, PCBs, etc.).

- Soil samples will be “discrete” in that each sample will be formed from, and represent only, one distinct soil layer.
- Soil samples for volatile organics analysis will be grab samples to reduce the potential for loss of volatiles during sample collection. Reducing the potential for volatile losses comes with the disadvantage that the scale over which the measured concentration applies cannot be estimated.
- Soil samples for analysis of non-volatile parameters will generally be discrete samples.
- Soil sample collection will avoid, to the extent possible, collecting vegetation, insects, worms, and particles larger than small gravel, including natural rock, concrete, brick, glass, wood, asphalt, and other non-soil-like materials (e.g., paper, plastic, rubber, etc.).
- Samples for analysis of volatile COCs will be transferred directly into the sample container as soon as practically possible with as little agitation and exposure to the atmosphere as can be achieved during normal field practices.
- Monitoring wells and piezometers will not be installed with saturated screen lengths greater than 3.1 m.
- Monitoring well screens installed across the water table will be positioned to maintain the water table within the screened portion throughout the year, typically requiring a 3.1 m screen, knowledge of the seasonal water level variation and water level conditions at the time of installation.
- Monitoring well screens will be placed within the geologic formation in which the contaminant is interpreted to be potentially present.
- Monitoring well screens will be positioned to isolate the zones where contaminants may be present (i.e., screens will not extend through less permeable zones, connecting two or more distinct higher permeability zones).
- Ground water level measurement will reflect a static monitoring condition, such that no change in water levels is anticipated at any of the wells monitored from the time the monitoring event started until the time it is finished.
- Ground water level measurements obtained for the purposes of interpreting the ground water flow direction will not be measured until at least 24 hours after the well has been developed.
- The assessment of ground water quality (including the potential for separate-phase liquids) and flow direction will consider the potential influences of temporal variation in ground water levels, including short-term (rainfall events), mid-term (seasonal), and longer-term (multi-year) trends.
- Appropriate sample containers will be provided by the laboratory containing the required preservative, if any, already in the sample bottle.

- Sample containers will be maintained within the acceptable storage temperature range and under chain of custody to reduce the potential for sample quality to diminish before analysis occurs.

3.2.4 Comparability

The following DQOs have been established for comparability.

- Only analytical results presented in signed, final and complete laboratory certificates of analysis from a laboratory accredited according to the requirements of O.Reg.153/04 (i.e., by the Standards Council of Canada (SCC) or Canadian Association for Laboratory Accreditation (CALA)) will be relied upon by Stantec for comparison to applicable regulatory criteria.
- Stantec endeavors to use the same laboratory, field methods, and field technician to obtain results of higher consistency by reducing potential variations that may be introduced when different sample collection methods and laboratories are used.
- The Regulation requires grain-size analyses to be conducted if the fine-medium textured soil standards are to be used. Sufficient samples to represent soil textures at the property will be obtained. Stantec further requires the soils tested to represent the area of potential contamination, or in some cases, contaminant migration pathways.
- The ground water standards apply to dissolved ground water concentrations, and thus, ground water sample results will not be accepted for the following:
  - Samples containing separate-phase liquids.
  - Samples with reported concentrations greater than solubility limits.
  - Sample results greater than the applicable SCS for metals but for which field-filtering of the sample could not be confirmed.
  - Sample results deemed by the QPESA to be anomalously high due to excessive sediment in the sample container.
- Lab filtered results for benzo(a)pyrene are acceptable under the Regulation. Analysis for all other polycyclic aromatic hydrocarbons (PAH) will be completed on unfiltered samples.
- Field measurements will not be compared to the applicable SCS for demonstrating the site conditions have been met, as precluded by the Regulation.

3.2.5 Completeness

The following DQOs have been established for completeness.

- Laboratory analyses will be conducted for the COCs identified in each medium in each APEC during the pre-remediation assessment.

- COC concentrations will be determined for each APEC, with the intent to:
  - Confirm the potential contaminants present.
  - Measure the maximum concentration of the contaminants.
  - Confirm the media contaminated.
  - Delineate the lateral and vertical extents of contamination.
- Sampling will be conducted in areas confirmed contaminated until the highest concentrations are identified and located, to the extent possible. As an exception, areas planned for remediation using methods like soil excavation and off-site disposal do not require as extensive characterization to identify maximum contaminant concentrations, provided the three-dimensional extents of contamination are sufficiently characterized for remediation planning and costing purposes, and sufficient confirmatory sampling is conducted to confirm the post-remediation site conditions meet the applicable site condition standards.
- The ground water level will be measured each time a monitoring well is sampled.
- If separate-phase liquid is suspected of being present in a monitoring well, its presence will be confirmed with a clean single-use bailer and its thickness will be measured using an interface probe.
- Assessment of ground water flow will include the calculation of horizontal and vertical hydraulic gradients where data are available.
- All aquifers and aquitards relevant at the property for determining the location and concentration of contaminants will be identified and investigated.

4.0 SAMPLING PLAN – RATIONALE AND DESIGN

This section presents a summary of the rationale for selection of borehole, monitoring well and sample locations for the Phase Two ESA. In general, the borehole, monitoring well and sample locations were selected to assess data gaps identified during the review of previous investigations and provide additional soil and ground water data for the Site. Deviations from the plan proposed herein, if any, and the rationale for such will be documented in the main text of the Phase Two ESA.

This sampling plan provides details of the sampling elements listed below.

- Sampling system (e.g., judgmental, random, grid sampling, etc.)
- Sampling type (e.g., grab or composite)
- Number of samples
- Sampling frequency
- Sampling depth intervals (including the screened intervals for monitoring wells and piezometers)
- Field-processing of samples
- Samples submitted for laboratory analysis

The proposed sampling locations and analyses are summarized in **Table 1**.

5.0 STANDARD OPERATING PROCEDURES

This section describes the methods followed by Stantec field staff during field investigations. The methods are derived from industry consensus practices published by agencies including the MOE (1996; 2011b), ASTM (2011, 2017), and EPA (1996). SOPs are detailed, stepwise procedures for routinely performed activities, and are intended to improve: 1) data collection quality by following accepted industry standards of practice, and 2) data consistency by following these procedures during each sampling and measurement event.

Field technicians are to follow these SOPs, documenting any deviations and the rationale for the deviation in their field notes. Other than minor deviations, pre-authorization from the supervising QP_{ESA} (e.g., licensed Professional Engineer or Professional Geoscientist) is required, and this discussion documented in the field notes. The Regulation requires the QP_{ESA} to confirm there is a suitable rationale for deviations from the SOPs.

Note, not all field SOPs presented herein are applicable to all investigations.

5.1 UTILITY LOCATES

Stantec contacts Ontario One Call to arrange buried utility clearances before each field mobilization involving intrusive subsurface activities, such as drilling, test-pitting or remedial excavation. On private property, a utility locating company is also retained to provide clearance of private utilities for each planned intrusive investigation/ remediation location.

In general, intrusive investigation locations can usually be adjusted so as not to correspond to a buried utility location without affecting the project objectives. Where intrusive locations need to be within approximately 2 m of a buried utility, increased measures are required by the contractor to protect the buried utility and worker health and safety. These measures may include daylighting the utility using hand digging or a mobile hydrovac excavation system.

The utility locate sheets are present on-site during the intrusive investigation activities. The drilling or excavation contractor is provided with copies of the utility locate sheets for review purposes before the intrusive investigations commence.

5.2 OVERBURDEN DRILLING

Boreholes in overburden are drilled using a licensed well driller. Boreholes are typically advanced using one of the following conventional drilling techniques. No drilling fluids or lubricants are used. Where applicable, the asphalt or concrete surface is removed to expose soil before drilling commences.

The sampler is retrieved, and the process repeated to advance the borehole to the next interval.

Direct Push Sampling – Boreholes are advanced using direct push samplers. Soil cores are collected using a soil core continuous sampler that is advanced with the casing to collect a sample over the drilling interval. The sampler is retrieved, and the process repeated to advance the borehole to the next interval.

Test Pit Sampling – Test pits are advanced using a backhoe with a hydraulic powered steel bucket to excavate a narrow pit in the overburden for the purpose of soil sample collection. Soil samples are scraped and collected from the base or the side of the test pit by the steel bucket at the desired interval (typically every 0.76 m) as the test pit is advanced.

Hand Sampling – Sampling of uncontaminated soil from the Site that was reused as excavation backfill was completed using a hand auger. The depth of sampling was 0.6 m BGS.

Soil sub-samples are collected from the sampler for headspace screening (where sufficient sample quantity is present) and for potential submission to the laboratory. Each sample for field headspace screening is placed into a new, 500 mL sealable freezer bag and stored out of direct sunlight. Bags are one-third to one-half filled with soil to leave sufficient headspace above the sample and then sealed. Soil samples for potential submission to the laboratory are placed directly into the appropriate sample containers supplied by the laboratory, labeled, and stored in a sample cooler containing ice.

5.3 SOIL SUB-SAMPLING

Soil sub-sampling consists of the selection of soil for potential laboratory analyses, the processing of this soil before it is placed into a sample container and documenting key information about each sample.

Sub-samples are collected as “discrete” in that each sample is collected from, and intended to represent only, one distinct soil layer or type at the sampling location. If inadequate sample is available in a soil core to fill sufficient sample containers to perform all planned laboratory analyses, then the analyses are prioritized and fewer analyses are performed. Soil from the adjacent, but different, soil layers is not used as a surrogate to represent the initial target soil layer.

Sub-samples are collected to represent “worst-case” for that particular sampling location and target chemical parameters, in consideration of field indications (e.g., headspace readings or visual-olfactory observations) and potential modes of contaminant release and migration. In some cases, professional judgment is required to select samples for analysis that are more consistent with the potential mode of contaminant release than just relying on analyzing the sample with the maximum field headspace reading. Because contamination extent is defined by the distance (laterally and vertically) to the nearest sample that meets the applicable SCS, samples to determine the “clean line” are still collected to represent “worst-case” (i.e., for that particular soil layer and location).

Grab samples of soil are collected for volatile parameters (VOCs and petroleum hydrocarbon fraction F1) to minimize the potential for loss of constituents during the sample collection process.

Composite samples of soil are preferred for all non-volatile parameters as a means to address the small-scale heterogeneity in soil concentration, as described in MOE (1996). Under the Regulation, composite samples are to consist of equal portions of material (aliquots) from multiple locations from the same soil

layer and depth interval within a 2 m radius “sampling location”. The aliquots of material are placed in a stainless-steel bowl and mixed to homogenize the soil before placing a portion into sample containers. The intent of composite sampling is to provide a reproducible means to measure the average concentration of the soil at that sampling location, recognizing that once a technician is sampling worst-case conditions at a sampling location, it is not possible to differentiate in the field areas of higher or lower concentration. Composite sampling programs generally use between three and 10 aliquots per sample depending on the specific project objectives and effort required to obtain each aliquot.

Vertical compositing is conducted where collecting multiple aliquots of soil layers at depth is cost prohibitive. Where a soil core contains 0.3 m or more of like soil from the same soil layer, a vertical composite sample may be formed over a 0.3 m to 0.6 m interval by taking either discrete segments or a slice along the core length and mixing the sample in a stainless-steel bowl. Filling the sample container using material along a core length is not a composite sample because laboratories do not homogenize soil container contents before extracting the soil that is ultimately analyzed.

Particle sizes larger than small gravel need not be included in sample containers because standard laboratory methods disaggregate soil and sieve, but do not crush/grind. Thus, coarse sand and larger particle sizes are not included in laboratory analysis. In practice, the field technician can remove gravel-size particles from sample containers and soil mixing bowls.

Documentation of soil sub-sampling includes the following:

- Measurements and photographs of the lateral sampling location (taken parallel and perpendicular to fixed, permanent reference points such that returning to that location is possible in the future).
- Description of the soil coring interval (or equivalent, if applicable).
- Measurements of the depth interval for the soil layer being sampled.
- Measurement of the soil sub-sampling interval over which the grab sample or composite sample was obtained.
- Sample recovery for the soil core (if applicable).

5.4 GEOLOGIC LOGGING

Soil cores are classified following the procedures described in the ASTM guidance for the visual-manual description and identification of soils (ASTM, 2017). For each soil core, the field technician logs the relevant descriptions of soil type, texture, colour, structure, consistency, plasticity, and moisture content. Weathering features and secondary mineralization are logged, as are observations of the presence of man-made materials, such as brick, concrete, glass, ash, cinder, slag, asphalt, etc. Field technicians do not intentionally smell the cores; however, obvious odours of septic, solvents, petroleum hydrocarbons, burnt rubber, etc., are noted with a descriptor of weak, moderate, or strong.

Soils from test pits and surficial samplers (e.g., trowel, shovel, hand corer) are logged in a manner similar to soil obtained from soil cores.

A borehole log is prepared for each location containing the detailed geologic descriptions described above. This form of field log includes a scaled, graphical presentation of information. Where a monitoring well and piezometer is installed in the completed borehole, the construction and installation details are added to the borehole log. The field log format also presents the locations where samples were collected for potential laboratory analysis and field headspace readings.

Where recovery in a core is less than 100%, Stantec uses the convention that the material obtained represents the upper portion of the interval sampled, unless evidence indicates otherwise, not counting the uppermost few centimetres of soft sediments that settle in the bottom of the borehole ("slough") that the sampler may be driven through before encountering the undisturbed native materials. In graphically presenting an interval, the last encountered geologic unit is assumed to extend from the bottom of sample recovery, through the zone of no recovery to the top of the next sample interval.

5.5 SOIL HEADSPACE SCREENING

Soil headspace screening is conducted on soil samples to monitor for the presence of total organic vapours (TOV) and combustible vapour concentrations (CVC) using a dual instrument device which includes both a photoionization detector (PID) and combustible gas detector (i.e., RKI Eagle 2). The PID generally detects VOCs, including chlorinated solvents and lighter-end PHCs (gasoline). The combustible gas detector generally detects petroleum hydrocarbons in the diesel-range or at explosive levels. The use of the dual instrument device facilitates screening of both chlorinated solvents and diesel-range or explosive levels of petroleum hydrocarbons.

The RKI Eagle 2 PID is typically equipped with a 10.6 eV lamp, which is capable of measuring many of the most common chlorinated solvents of interest to environmental investigations. Of note, an 11.7 eV lamp is required to detect 1,1,1-TCA. The PID displays the TOV in parts per million by volume (ppm_v). The PID is calibrated to 100 ppm_v isobutylene span gas following the manufacturer's instructions. The PID calibration is checked each day and re-calibrated if the PID readings appear contradictory to other field indicators (e.g., odours and staining).

The combustible gas detector (e.g., RKI Eagle O_2, CO, H_2S and LEL gas monitor) is calibrated to 15% lower explosive limit (LEL) hexane in the same manner as that followed for the PID. The combustible gas detector displays the combustible soil vapour (CSV) concentration reading in ppm_v for low concentrations and %LEL for higher concentrations.

The calibration of the dual instrument device is checked each day and re-calibrated if the readings appear contradictory to other field indicators (e.g. odours and staining).

Headspace measurements are performed after allowing the samples to warm to approximately room temperature, normally within 15 to 30 minutes after sample collection. The bags are gently kneaded and shaken to enhance gas equilibration between the soil and the headspace. The probe is then inserted into the soil bag, taking care not to contact any solids or liquids or the side of the bag. The highest reading is recorded.

5.6 MONITORING WELL INSTALLATION

One monitoring well is installed in each select borehole after borehole advancement is completed to the desired depth. Each well is constructed of 51 mm ID, Schedule 40, polyvinyl chloride (PVC) materials with a 0.25-mm slot ("10-slot"), PVC well screen. The well materials are not removed from the protective plastic wrapping until required. The PVC screen and piping are flush-threaded and contain O-rings to provide watertight joints. Well screens are 3 m in length and are generally positioned to intercept the water table. By installing monitoring wells with the water table at mid-screen at the time of installation, the water table can fluctuate approximately 1 m seasonally up or down with the well still being considered a water table well (containing sufficient water column to permit sampling).

To install a well, the well screen and riser are assembled, a threaded end plug installed, and the well materials lowered into the borehole. As the augers are removed (if used), silica sand is placed around the well screen and extended to a minimum of 0.6 m above the well screen. A bentonite seal is then placed to a minimum thickness of 0.6 m above the silica sand to hydraulically isolate the well screen. Municipal tap water is added to hydrate the bentonite if it is placed above the water table but is not required for wells installed below the water table.

The well is completed at ground surface with either a flush-mount or an above-grade protective cover set in a concrete pad. Wells are capped with either a locking J-plug or a PVC slip-cap. A lock may be installed on wells equipped with a j-plug (typically those with flush-mount covers) and on the lid of the above-grade cover. The well drilling contractor applies a well tag and files a well record with MECP as required by O.Reg.903.

Monitoring wells are not developed, purged, or sampled for a minimum of 24 hours after installation to permit the well seal to hydrate and the concrete pad to cure.

The well construction details are presented on the borehole logs prepared for each borehole and monitoring well installation.

5.7 MONITORING WELL DEVELOPMENT, PURGING AND SAMPLING

The monitoring wells are developed and purged before first sampling. Wells are developed to remove fine-grained material from the well screen and filter-pack. Wells are purged to remove stagnant water from the well casing. The development and purging activities are performed using an inertial pumping system (consisting of dedicated polyethylene tubing and foot valve), an automated pumping system (e.g., using peristaltic or down hole pump and polyethylene tubing dedicated to each well), or a "clean" single-use bailer.

To develop and purge the well concurrently, approximately ten casing volumes of water are removed. The depth to water in the well and observations of the physical appearance of the purge water are noted (odour, colour, clarity, sediment load) after the removal of each casing volume of water, including the observed presence of any film, sheen or separate-phase product. Measurement of water quality parameters is also performed as described in the next section. Wells are developed before the first time

they are sampled, and thereafter only require purging of approximately three to six casing volumes. Six casing volumes are usually purged from smaller diameter wells or from wells having short water columns because of the small corresponding casing volume. If water is used to control heaving conditions during drilling, a corresponding volume of water is removed during well development in addition to the six to ten casing volumes.

During well development, purging, and sampling, care is taken to control the degree of drawdown in the well and to limit induced water turbidity during successive activities:

- The target flow rate during sampling is up to 1 litre per minute (LPM), with target flow rates for purging and development set at two and four times the well sampling rate, respectively (i.e., 2 and 4 LPM). In concept, well sampling should not re-suspend excessive fine materials in the well at 1 LPM if such did not occur during purging and development at the higher flow rates.
- During development and purging, the pump intake starts at the bottom of the well and is moved progressively up the water column to approximately the mid-point of the saturated well screen length. Continual pumping of the well bottom tends to induce water turbidity.
- Pumping rates are generally adjusted during development, purging and sampling to maintain the saturated well-screen configuration:
  - Where the starting water level is above the top of the well screen, it is not lowered into the well screen during pumping;
  - Where the starting water is below but near the top of the well screen, the water level is not lowered below the middle of the well screen during pumping;
  - Where the starting water is near or below the middle of the well screen, the water level is not lowered by more than 25% of the height of the water column in the well during pumping; and
  - If the well is deemed low-yielding (requiring more than one hour to purge three casing volumes following the above method), return visits to the well are made to remove at least three casing volumes of water, with the need for further well purging assessed on a case-by-case basis, usually depending on the degree of suspended sediment in the water samples, target analytical parameters, and existing water quality results, etc. Full well development is not expected for low-yielding wells because the ability to remove fine-grained material is limited by the inability of the well to produce water.
- The depth to water, observations of water turbidity, pump intake depth, and pumping rate are documented and used to adjust the water removal activities, as well as providing an indication of the sustainable well yield and hydraulic conductivity of the screened interval.

Well purging is considered complete upon successive measurement of water quality parameters that have stabilized to within 10%, provided a minimum of three casing volumes have been purged. The rationale for concluding well purging for low-yielding wells is established and documented on a case-by-case basis and is usually set by logistical and/or time constraints.

Ground water samples are collected directly into the appropriate sample containers. The sample containers are supplied by the laboratory and are pre-preserved, if and as appropriate, for the planned laboratory analyses.

Sample containers are filled, labeled, and then stored in a sample cooler containing ice as quickly as practical to minimize the time that samples are subject to potential damage and ambient conditions, like sunlight and hot temperatures.

Samples for metals analysis are first field-filtered using a new, single-use, 0.45 micron, in-line filter. At least two filter volumes are purged through the filter before starting to fill the sample container.

Samples for PAH analysis are not field filtered. If necessary, a separate sample is collected for laboratory filtration prior to analysis for benzo(a)pyrene.

The field notes document the well development, purging and sampling times (start/stop time for each activity), the initial depth of the water level relative to the well-screen (i.e., well development and purging approach), observations of water quality, water level, pump intake and cumulative water removed, as well as the field measurements of water quality parameters (discussed below) and any sampling information (sample identifier, bottles filled, and any corresponding field duplicate samples). The rationale for concluding the development and purging activities, and the equipment used is also documented.

5.8 ORDER OF SAMPLE COLLECTION

Ground water samples are typically collected in order from sample locations where contaminant concentrations are lowest to locations where contaminant concentrations are highest to reduce the potential for cross-contamination of samples.

Where a ground water sampling location is planned for multiple laboratory analyses, some practitioners use a hierarchy to specify the order in which sample containers are filled. Stantec does not follow a prescribed order. Instead, where sample volume is limited, sample containers are filled first for the primary contaminants of interest, then for secondary contaminants of interest, field headspace screening, quality control (QC) samples and lastly for physical analysis (e.g., grain size distribution curves). If analyses are planned for volatile parameters, these sample containers are filled first so that there is sufficient sample volume to fill the sample containers without leaving headspace, and so that the potential for volatile losses during sampling is reduced.

5.9 FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

Field measurement of the water quality parameters is conducted after each casing volume of water is removed. The temperature, pH, and specific conductivity of the water are measured using an appropriate field instrument(s) and a flow-through cell (if sufficient flow is available). Alternatively, water is pumped into a beaker, the beaker rinsed and then half-filled with purge water from which the measurements are taken directly. Measurements are made as soon as the readings stabilize to reduce the exposure time of the purged water to atmospheric conditions. Care is taken during reading the specific conductivity

measurement to note the units of measurement because many meters auto-scale, and thus, the units of measurement can automatically change between or during readings.

The meter is calibrated, used, and stored following the manufacturer's instructions. At the start of each field day, the meter calibration is checked in the calibration solutions, and the calibration adjusted if required. The pH probe is typically calibrated to two points using pH 4 and pH 10 calibration solutions. The specific conductivity probe is typically calibrated in a solution having specific conductance of 1413 µS/m. The temperature probe does not require field calibration.

5.10 SAMPLE LOCATION AND IDENTIFICATION

All investigation locations are assigned a unique identification code for that location. In addition, each sample collected is assigned a unique identification code. Identification codes are selected to be unique such that they cannot be inadvertently repeated.

Numerous systems have been developed for selecting identification codes. The specific system used is a project-specific decision. Sometimes it is preferable to use the system previously used at a project site for continuity. It is also sometimes easier to maintain continuity of the units of measurement (metric or imperial). Imperial units are often used where drilling is involved because drilling equipment and well supplies are sized in imperial units. Spaces and apostrophes are not used in sample identification codes.

Blind identification systems or sequential numbering systems are rarely used where field decisions are required in real-time. Instead, informative identification systems are used because the sample identifier contains key information about each sample collected.

Sample Depth Interval

Indicate the top and bottom of the depth interval over which the sample was collected for filling the sample container (e.g., "0.7-1.1") in metres.

QC Samples

Field duplicate and field blank samples are submitted "blind" to the laboratory. A fictitious sample identifier and sample collection time is used so that the laboratory cannot identify the sample as a QC sample.

5.11 SAMPLE CONTAINERS, LABELING, HANDLING AND CUSTODY

The analytical laboratory provides sample containers and preservative. Bureau Veritas Laboratories (BV) of Mississauga, Ontario is the laboratory for this assignment. BV is a CALA-accredited laboratory. The table in **Appendix B** of this SAP was provided by BV, the laboratory selected for this project. The table presents, for each medium analyzed, the matrix of analytical parameters, sample container description (bottle type and number of bottles to fill), holding time, and preservation requirements (chemical and physical). BV provided all sample containers.

Samples for laboratory analyses are packed carefully into sample coolers to prevent damage to the sample containers. Samples are maintained at a temperature between 4 and 10ºC by including ice in sample coolers during on-site storage and transport to the laboratory. A chain of custody form is completed and included in each sample cooler. A custody seal is affixed to each cooler once packed and sealed. Samples are hand-delivered to the analytical laboratory, shipped by overnight courier, or picked up by the laboratory's courier service. The field technician maintains custody of the samples until custody is transferred to either laboratory reception or the delivery service.

5.12 LIQUID LEVEL MEASUREMENTS

Water levels are measured to the nearest 0.01 m using a battery-operated, water level or interface-probe. Measurements are obtained by lowering the electrode, attached to the graduated polyethylene tape, slowly into the well until a tone sounds. If light phase-separated liquid is detected, as indicated by an intermittent tone, the depth is read from the tape and recorded. If there is no phase-separated liquid present (or it has already been detected by an intermittent tone) the electrode continues to be lowered into the well until a solid tone sounds indicating water. The depth-to-water from the reference point on the well is then read from the tape and recorded. Duplicate measurements are performed at each location to attain 0.01 m repeatability. The highest point of the well casing is used as the reference point. If the presence of dense phase-separated liquid is suspected, the probe continues to be lowered to the bottom of the well, with an intermittent tone indicating the depth at which the probe transitions from water to dense phase-separated liquid.

In general, an interface probe is not used unless phase-separated liquids are suspected to be present from initial borehole drilling and ground water sampling results.

When monitoring multiple wells at a site, monitoring proceeds from least contaminated to most contaminated areas to reduce the potential for cross-contamination from the water level or interface probe.

5.13 ANALYTICAL TESTING

As noted previously, the analytical laboratory provides sample containers and preservative. BV of Mississauga, Ontario is the laboratory for this project. BV is a CALA accredited laboratory.

5.14 EQUIPMENT CLEANING

All non-dedicated sampling and monitoring equipment is cleaned before initial use and following each use.

Drilling and field equipment is cleaned following common equipment cleaning procedures (MOE, 1996; ASTM, 2015). The samplers are cleaned by manually scrubbing using a brush and a phosphate-free soap solution, and rinsing with distilled or tap water. Equipment that may be damaged by immersion in water is wiped clean using a sponge, rinsed in phosphate-free soap solution, and then rinsed with tap water. The probe of the interface probe or water-level meter is cleaned by rinsing in a phosphate-free soap solution

followed by distilled or tap water. In addition, a new pair of nitrile gloves was used to remove the soil samples from the split spoon sampler when environmental samples were being collected.

A solvent rinse using reagent-grade, laboratory-supplied methanol is used (ASTM, 2015) when investigating areas of higher suspected VOC concentrations.

5.15 LOCATION AND ELEVATION SURVEYS

Measurements are recorded and photographs taken to document each sampling location laterally. Measurements and photographs are taken parallel and perpendicular to fixed, permanent reference points to allow returning to that sampling location in the future, if required.

The Stantec technician will survey the elevation of monitoring wells. The technician will also measure the lateral locations of boreholes, and wells, if appropriate, at large properties or at properties lacking permanent nearby reference points.

5.16 RESIDUE MANAGEMENT

Soil cuttings, purge fluids, and cleaning fluids are typically placed into drums. Classification and disposal of drummed wastes are the client's responsibility. To facilitate the process, Stantec collects representative samples for waste classification purposes under O.Reg.347.

Drums are labeled and the contents added to each drum documented for tracking purposes. Drums are stored at a location designated by the property owner pending analysis and off-site disposal.

5.17 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC)

QA/QC procedures are implemented in the field and laboratory to demonstrate that the data generated are of a level of quality suitable for its intended purposes. Field QA/QC procedures include use of new sampling equipment, equipment cleaning procedures, blind duplicate and blind field blank sample submittal, and adherence to published standards for field methodology. Laboratory QA/QC procedures include following internal protocols and analysis of laboratory blank samples and laboratory reference standards.

The electronic data received from the laboratory are imported into Stantec's data management system. The data are output into report ready spreadsheets. After checking the spreadsheet, the compiled data are reviewed to confirm that the data are of satisfactory quality. Sample chain-of-custody, holding times, dilution factors, surrogate recoveries, replicate analyses, analytical quantitation limits, and blank analyses are reviewed and compared to applicable QC acceptance criteria.

A data review process, often referred to as "data validation", is conducted to assess whether the DQOs were satisfied. Stantec establishes data validation criteria that require the analytical data to have an acceptable level of precision, accuracy, representativeness, comparability, and completeness ("PARCC" criteria). The data validation process is described below.

5.17.1 Precision

The analytical results of the investigation samples and their associated field duplicates (or laboratory replicates) are presented in the data tables. Data precision is evaluated by calculating the RPD between the investigation sample results and their duplicate or replicate results. The RPD is calculated as follows:

$$RPD = 2 \text{ x } \frac{(|C_1 - C_2|)}{(C_1 + C_2)} \text{ x } 100$$

where: C_1 = parent sample concentration

C_2 = duplicate sample concentration

RPDs are calculated where both C1 and C2 are above the analytical reporting limit (RL). Stantec set a screening-level RPD acceptance criterion as presented in Section 3.2 using guidance from BV (Maxxam, 2016). Where the reported concentrations are less than 10 times the RL, lower precision is expected and the screening-level criterion does not apply. Reported concentrations greater than 10 times the RL and having an RPD greater than the screening-level criteria are considered to have failed the initial precision assessment; however, both sample results are accepted as suitably precise if both are considered many times above or below the applicable regulatory criterion or guideline value. A sample concentration and its duplicate result are concluded to have lowered precision if the reported concentrations are near the applicable regulatory criterion or guideline value being used or concentrations are less than 10 times the RL and RPD greater than the screening-level criterion, such that the interpretation might change depending on the reported concentration used. In this case, the data are considered an estimated value and corrective actions taken, such as further sample collection and analysis.

5.17.2 Accuracy

The accuracy of the analytical results is assessed by confirming that the reported laboratory surrogate recoveries and spike samples are within the acceptance criteria established by the laboratory as reported on the laboratory certificates of analysis. The surrogate recoveries and spike samples consist of known concentrations of chemicals that the laboratory adds to the investigation samples. The laboratory measures the amount detected, and then calculates the Percent Recovery (%R) to confirm the reported value is within reasonable agreement with the known value. The typical acceptance criterion requires %R to be within 70% and 130% (i.e., accuracy of approximately ±30%).

5.17.3 Representativeness

The representativeness of the analytical results is assessed by reviewing several factors of a qualitative nature, including the following:

- Field procedures and laboratory methods followed industry consensus practices (including sample collection methods; laboratory analytical methods; sample containers, preservative(s), holding times; and chain-of-custody documentation).

- Sampling design was appropriate to characterize the depth intervals of interest in the areas of potential environmental concern.
- Sample results were consistent with visual/olfactory observations, previous investigation results at nearby locations and/or the conceptual site model for the potential release of chemicals to the environment.
- The number of samples analyzed and parameters for which analyses were performed were considered by the Qualified Person to be sufficient for the purpose of the Phase Two ESA.
- Corrective actions were taken, as deemed appropriate, to resolve data anomalies or other quality issues that arose during the site investigation, including qualifying any data (as estimated or unreliable), sample re-analysis, or conducting additional sample collection, analysis and interpretation.

5.17.4 Comparability

Data comparability is assessed qualitatively by confirming that the sampling locations, sampling depths, field methods and laboratory methods were the same, or as close as practical to the methods used in previous investigations.

5.17.5 Completeness

Data completeness is assessed qualitatively by confirming that the analytical results were obtained for all the samples submitted and all the analytical parameters requested, including the supporting laboratory documentation and chain-of-custody documentation. Consideration is given to the significance of any data that were rejected based on poor data quality. The frequency of inclusion of QC samples is also considered.

5.17.6 Other Assessment

Other data collection activities, such as water level monitoring and field headspace screening, undergo QC checks confirm they meet the DQOs. Deviations that occur during the field investigations, if any, are documented in the main text of the Phase Two ESA report.

5.17.7 Frequency of QC Sample Analysis and Calibration Checks

QC sample requirements for the number, type, and frequency of QC sample collection and laboratory analysis are summarized below. Slight departures may occur on a case-by-case basis depending on project-specific situations (e.g., insufficient sample volume) and their potential significance will be addressed as they occur.

Minimum QC Sample Analysis Frequency

Medium	Soil	Ground water
Trip Blank	Trip blanks are generally not submitted for soil.	One per sample shipment for VOC analysis.
Field Blank	Field blanks are generally not submitted for soil.	One per sample shipment for VOC analysis.
Field Duplicate	One for every 10 investigation samples submitted for analysis.	One for every 10 investigation samples submitted for analysis.

Calibration checks on field instruments are performed at the following frequencies.

- The water quality meter (pH, specific conductance, temperature) is calibrated once per day, generally at the start or end of each field day, and typically consists of a calibration check followed by minor calibration adjustments, if required.
- The calibration of the dual instrument device (which measured TOV and CVC) is checked each day and re-calibrated if the readings appear contradictory to other field indicators (e.g. odours and staining)

6.0 REFERENCES

American Society for Testing and Materials (ASTM), 2017. D2488-17e1 *Standard Practice for Description and Identification of Soils (Visual-Manual Procedure)*.

American Society for Testing and Materials (ASTM), 2015. D5088-15a *Standard Practice for Decontamination of Field Equipment Used at Nonradioactive Sites.*

American Society for Testing and Materials (ASTM), 2011. E1903-11 *ASTM Standards Related to the phase II Environmnetal Site Assessment Process.*

United States Environmental Protection Agency, 1996. Environmental Protection Act (EPA). *Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures.*

Maxxam Analytics International Corporation (Maxxam) (now Bureau Veritas Canada), 2016. Ontario QA/QC Interpretation Guide-Environmental Services.

Ontario Ministry of the Environment (MOE), 1996, *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. Version 1.1.* Ministry of Environment and Energy. December 1996.

Ontario Ministry of the Environment (MOE), 2011a. *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act.* April 15, 2011.

Ontario Ministry of the Environment (MOE), 2011b. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act.* March 9, 2004, amended as of July 1, 2011.

Stantec Consulting Ltd. (Stantec), 2021. *Final Phase One Environmetal Site Assessment, 358 Reynolds Street, Oakville, Ontario*, prepared for Transmetro Limited, report dated August 10, 2021.

APPENDICES

Appendix A TABLE

Table 1: Phase Two ESA Sampling and Analysis Plan

Borehole/ Monitoring Identification	Location	Investigation Rationale	Soil Analysis	Ground Water Analysis
MW20-1	Northeastern portion, along the northern boundary of the Phase Two Property, adjacent to 327 Reynolds Street (exterior)	Assess soil and ground water conditions based on APEC #3 associated COCs identified in Phase One ESA.	BTEX, PHCs	BTEX, PHCs
MW20-2	Northeastern portion, along the northern boundary of the Phase Two Property, adjacent to 327 Reynolds Street (exterior)	Assess soil and ground water conditions based on APEC #3 associated COCs identified in Phase One ESA.	BTEX, PHCs	BTEX, PHCs
MW20-3	Central portion of the Phase Two Property, southwest of the site building, within the footprint of the former UST excavation (exterior)	Assess soil and ground water conditions based on APEC #1 and 2 associated COCs identified in Phase One ESA.	BTEX, PHCs, PAHs, metals and inorganics	BTEX, PHCs, PAHs, metals and inorganics
MW20-4	Central portion of the Phase Two Property, southwest of the site building, west adjacent to the former UST excavation (exterior)	Assess soil and ground water conditions based on APEC #1 and #2 associated COCs identified in Phase One ESA.	BTEX, PHCs, PAHs, metals and inorganics	BTEX, PHCs, PAHs, metals and inorganics

Borehole/ Monitoring Identification	Location	Investigation Rationale	Soil Analysis	Ground Water Analysis
MW20-5	Within the southern portion of the site building (interior), adjacent to the former UST	Assess soil and ground water conditions based on APEC #1 associated COCs identified in Phase One ESA.	BTEX, PHCs, PAHs, metals and inorganics	BTEX, PHCs, PAHs, metals and inorganics
MW20-6	Within the southern portion of the site building (interior)	Assess soil and ground water conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Metals and inorganics	Metals and inorganics
MW20-7	Within the southern portion of the site building (interior)	Assess soil and ground water conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Metals and inorganics	Metals and inorganics
MW20-8	Within the southern portion of the site building (interior)	Assess soil and ground water conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Metals and inorganics	Metals and inorganics
BH-2	Central portion of the Phase Two Property, southwest of the site building, northwest of the former UST excavation (exterior)	Assess ground water conditions based on APEC #2 associated COCs identified in Phase One ESA.	N/A – Existing historical monitoring well	BTEX, PHCs
MW-3	Central portion of the Phase Two Property, southwest of the site building, within the footprint of the former UST excavation (exterior)	Assess ground water conditions based on APEC #1 and #2 associated COCs identified in Phase One ESA.	N/A – Existing historical monitoring well	BTEX, PHCs
TP20-01	Outside the east building wall adjacent to the Table 2 SCS Mercury exceedance at MW20-5.	Assess soil conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Mercury	N/A – no monitoring well installed

Borehole/ Monitoring Identification	Location	Investigation Rationale	Soil Analysis	Ground Water Analysis
TP20-02	Outside the east building wall adjacent to the Table 2 SCS Mercury exceedance at MW20-5.	Assess soil conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Mercury	N/A – no monitoring well installed
TP21-1	Outside the south building wall adjacent to the Table 2 SCS Mercury exceedance at MW20-5.	Assess soil conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Mercury	N/A – no monitoring well installed
TP21-2	Outside the south building wall adjacent to the Table 2 SCS Mercury exceedance at MW20-5.	Assess soil conditions in the vicinity of the Table 2 SCS Mercury exceedance at MW20-5.	Mercury	N/A – no monitoring well installed
TP21-3	Central portion of the Phase Two Property, southwest of the site building, within the footprint of the former UST excavation (exterior)	Assess soil and ground water conditions based on APEC #1 and 2 associated COCs identified in Phase One ESA.	BTEX, PHCs, PAHs, metals and inorganics	N/A – no monitoring well installed
GS21-01, GS21-02, GS21-03	Central portion of the Phase Two Property, southwest of the site building, within the footprint of the PHC remedial excavation (exterior)	Confirm that soil from the site reused as excavation backfill has concentrations of COCs that are less than the Table 2 SCS.	BTEX, PHCs, metals, mercury	N/A – no monitoring well installed

Note(s):
N/A – Not Applicable

Appendix B BV SAMPLING REQUIREMENTS

Sample Container, Preservation, and Hold Time Information

Hold Times and Container Types Do Not Apply to Drinking Water Samples

WATER

Inorganic Parameters	Recommended Sample Container	Preservation	Hold Time*
Alkalinity	500 mL plastic	None	14 days
Anions (Br, Cl, F, NO3, NO2, PO4, SO4)	500 mL plastic	None	3/28 Days
Biochemical Oxygen Demand (BOD)	120 mL plastic	None	**4 days**
Carbon, Total Organic (TOC)	250 mL plastic	H_2SO_4 (pH < 2)	10 days
Carbon, Dissolved Organic (DOC)	120 mL plastic	None	3 days
Chemical Oxygen Demand (COD)	250 mL plastic	H_2SO_4 (pH < 2)	30 days
Chlorine, Residual (Cl)	40 mL glass vial w/septum cap**	None	**Immediate**
Chromium VI - **FIELD FILTER GW (Reg. 153)**	125 mL plastic	$(NH_4)_2SO_4/NH_4OH$/NaOH	28 days
Conductivity	500 mL plastic	None	28 days
Cyanide (CN)	125 mL plastic	NaOH (pH > 12)	14 days
Dissolved ICPMS, ICP Metals - **FIELD FILTER GW**	120 mL plastic	HNO_3 (pH < 2)	60 days
Total ICPMS, ICP Metals - **NOT FILTERED**	120 mL plastic	HNO_3 (pH < 2)	30 days
Mercury - **FIELD FILTER GW (Reg. 153) / SW (PWQO)**	100 mL clear glass	HCl (pH < 2)	28 days
Methyl Mercury (*Subcontracted*)	250 mL plastic jars (Teflon Lined)	HCl (pH < 2)	28 days
Nitrogen - Ammonia (NH_3-N) / Total Kjeldahl Nitrogen (TKN)	250 mL plastic	H_2SO_4 (pH < 2)	10 days
Phenolics - Total	120 mL amber glass	H_2SO_4 (pH < 2)	30 days
Solids - (TS, TSS, TDS)	500 mL plastic	None	7 days
Sulphide (S^{2-})	125 mL plastic	NaOH / ZnOAc (pH > 9)	7 days
Total Phosphorus	250 mL plastic	H_2SO_4 (pH < 2)	30 days
Microbiological - Sewer	300 mL plastic - Sterilized	$Na_2S_2O_3$	**24 hours**
Microbiological - All Other	300 mL plastic - Sterilized	$Na_2S_2O_3$	**48 hours**

Organic Parameters	Recommended Sample Container	Preservation	Hold Time*
ABNs (Acid & Base Neutral Extractables) or SVOCs (Semi-Volatiles)	2 x 1L amber glass	None	14 days
Fatty and Resin Acids	2 x 1L amber glass	None	7 days
Herbicides	2 x 1L amber glass	None	14 days
Dioxins and Furans	2 x 1L amber glass	None	30 days/Indefinite
Chlorophenols	2 x 1L amber glass	None	14 days
PAHs	2 x 250 mL amber glass	$NaHSO_4$ (pH < 2)	14 days
Pesticides / PCBs / Ocs	2 x 500 mL amber glass	None	14 days
Oil & Grease / Heavy Oils	1 x 1L amber glass	HCl (pH < 2)	30 days
F4 Gravimetric	1 x 250 mL amber glass	$NaHSO_4$ (pH < 2)	40 days
CCME PHCs F2-F4 / Extractable Hydrocarbons	2 x 250 mL amber glass	$NaHSO_4$ (pH < 2)	40 days
CCME PHCs F1 / BTEX	2 x 40 mL clear glass septum vial**	$NaHSO_4$ (pH < 2)	14 days
THMs / VOC's	3 x 40 mL clear glass septum vial**	$NaHSO_4$ (pH < 2)	14 days
1,4 Dioxane - processed as a VOC	3 x 40 mL clear glass septum vial**	$NaHSO_4$ (pH < 2)	14 days
1,4 Dioxane - processed as an ABN	2 x 1L amber glass	None	14 days

SOIL

Inorganic Parameters	Recommended Sample Container	Preservation	Hold Time*
Anions (Br, F, NO3, NO2, PO4, SO4)	250 mL glass jar	None	None Specified
Anions (Chloride)	250 mL glass jar	None	30 days
Carbon, Total or Fraction of Organic (TOC/FOC)	250 mL glass jar, teflon lined lid	None	28 days
Conductivity	250 mL glass jar	None	30 days
Cyanide, Free	250 mL glass jar, teflon lined lid***	None	14 days
Chromium VI	250 mL glass jar	None	30 days
Metals (incl. Hydrides, SAR, HWS Boron, Ca, Mg, Na)	250 mL glass jar	None	180 days
Mercury	250 mL glass jar	None	28 days
Methyl Mercury (*Subcontracted*)	250 mL glass jar	None	28 days
Nitrogen - Ammonia (NH_3-N) / Total Kjeldahl Nitrogen (TKN)	250 mL glass jar	None	None Specified
pH	250 mL glass jar	None	30 days
Phenolics - Total	250 mL glass jar	None	None Specified
Regulation 558 - TCLP - Inorganics & Organics	250 mL glass jar	None	14-180 days
Regulation 558 - TCLP (Zero Headspace Extraction) - Volatiles	120 mL glass jar, teflon lined lid	None	14 days

Organic Parameters	Recommended Sample Container	Preservation	Hold Time*
BTEX, PHCs (F1), THMs, VOCs for Reg 153 - RSC work	40ml glass vial (plus 60ml jar for moisture)	10 mL methanol	14 days
BTEX, PHCs (F1), THMs, VOCs for Reg 153 - RSC work	Hermetic Sampler (plus 60ml jar for moisture)	Stabilize with Methanol within 48 hrs of sampling	
PHCs (F2-F4) and Moisture	120 mL glass jar, teflon lined lid	None	14 days
Herbicides, OP Pesticides	120 mL glass jar, teflon lined lid	None	14 days
Dioxins and Furans, PCBs	120 mL glass jar, teflon lined lid	None	Indefinite storage time
Oil & Grease, Heavy Oils	120 mL glass jar, teflon lined lid	None	30 days
ABNs, Chlorophenols, OC Pesticides, PAHs	120 mL glass jar, teflon lined lid	None	60 days
1,4-Dioxane - processed as a VOC	40ml glass vial (plus 60ml jar for moisture)	10 mL methanol	14 days
1,4 Dioxane - processed as an ABN	120 mL glass jar, teflon lined lid	None	14 days

*Based upon Reg. 153 analytical protocols and MISA (Municipal and Industrial Strategy for Abatement)
**No headspace or air bubbles in the container.
***Protect from light

Reg 153 Metals and Inorganics Packages		
Reg 153 ICPMS Metals	**Reg 153 Metals Package (Soil)**	**Reg 153 Metals Package (Water)**
Antimony	***Reg 153 ICPMS Metals with***	***Reg 153 ICPMS Metals with***
Arsenic	Chromium VI	Chromium VI
Barium	HWS Boron	Mercury
Beryllium	Mercury	
Boron (total)		
Cadmium		
Chromium (total)		
Cobalt	**Reg 153 Metals & Inorganics Package (Soil)**	**Reg 153 Metals & Inorganics Package (Water)**
Copper		
Lead	***Reg 153 Metals Package with..***	***Reg 153 Metals Package with…***
Molybdenum	Electrical Conductivity	Chloride
Nickel	Free Cyanide	Free Cyanide
Selenium	pH	
Silver	Sodium Absorption Ratio	
Sodium *(water only)*		
Thallium		
Uranium		
Vanadium		
Zinc		

Bureau Veritas Laboratories Water Quality Packages		
RCAP - Comprehensive ICP/MS Metals - Dissolved	**RCAP - Routine ICP Metals - Dissolved**	**RCAP - Surface Water ICP/MS Metals - Total**
Alkalinity $CaCO_3$	Alkalinity $CaCO_3$	Alkalinity $CaCO_3$
Ammonia as N	Ammonia as N	Ammonia as N
Carbon, Dissolved Org. as C	Carbon, Dissolved Org. as C	Carbon, Total Org. As C
Chloride	Chloride	Chloride
Conductivity	Conductivity	Conductivity
Nitrate as Nitrogen	Nitrate as Nitrogen	Nitrate as Nitrogen
Nitrite as Nitrogen	Nitrite as Nitrogen	Nitrite as Nitrogen
pH	pH	pH
Phosphate as o-PO_4	Phosphate as o-PO_4	Phosphate as o-PO_4
Sulphate as SO_4	Sulphate as SO_4	Sulphate as SO_4
		Total Phosphorus (colorimetric)
		Turbidity
CALCULATIONS:	**CALCULATIONS:**	**CALCULATIONS:**
TDS Calculated	TDS Calculated	TDS Calculated
Bicarbonate Alkalinity	Bicarbonate Alkalinity	Bicarbonate Alkalinity
Carbonate Alkalinity	Carbonate Alkalinity	Carbonate Alkalinity
Anion Sum	Anion Sum	Hardness
Cation Sum	Cation Sum	Langelier Index @5C
Hardness	Hardness	Langelier Index @20C
Ion Balance	Ion Balance	Saturation pH @5C
Langelier Index @5C	Langelier Index @5C	Saturation pH @20C
Langelier Index @20C	Langelier Index @20C	
Saturation pH @5C	Saturation pH @5C	
Saturation pH @20C	Saturation pH @20C	

Note: Samples are to be kept cool (less than 10°C) post collection; however, samples arriving at Bureau Veritas Laboratories the same day as they were collected, with an attempt made to cool, are not considered compromised at greater than 10°C.

Bureau Veritas Laboratories has provided a summary of holding times for convenience purposes only and is to be used only as a guide. Holding times may differ depending on required protocol.
Please consult the official regulations to ensure the appropriate holding times are followed. Please ensure samples are transported as quickly as possible to ensure hold times can be met.
Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of our terms available at http://www.bvlabs.com/terms-and-conditions

A.2 FINALIZED FIELD LOGS

Monitoring Well: MW20-1

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 7822DT (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	22-Jan-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.98 m RTD
Number:	122120345	**Top of casing elevation:**	99.82 m RTD
Field investigator:	J. Hale	**Easting:**	607174.9
Contractor:	Strata Drilling Group	**Northing:**	4812040

SUBSURFACE PROFILE				SAMPLE DETAILS					INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	%LEL Comb▲ 20 40 60 80 ppm OTOV ● Comb 200 400 600 800	Diagram	Description
			Ground Surface	99.98							
			SILT dark brown, some sand and organics, trace clay, moist	0.00							Flushmount protective cover with concrete seal
				99.57							
2			SAND brown/orange, trace silt, moist	0.41	1	DP	20" 33%		<5 ● ○ 1.0		50 mm ID PVC pipe backfilled with bentonite
4	1		- very moist								
6	2				2				<5 ● ○ 1.0		
				97.79							
8			SILTY and SANDY GRAVEL brown, wet	2.19		DP	42" 70%				50 mm ID slotted PVC pipe backfilled with silica sand
					3			VOC, PHC F1 to F4	<5 ● ○ 1.0		Groundwater Level: 2.64 m BGS 23-Jan-20
10	3										
					4	DP	8" 33%		<5 ● ○ 1.0		
12				96.32							
			Direct Push Refusal at 3.66 m BGS. End of Borehole	3.66							
14	4										

Screen Interval: 0.91 - 3.66 m BGS
Sand Pack Interval: 0.61 - 3.66 m BGS
Well Seal Interval: 0.23 - 0.61 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

STANTEC BOREHOLE AND WELL V2 122120345_BHLOGS.GPJ STANTEC - DATA TEMPLATE.GDT 12/22/20 RCUMARASWAMY

Monitoring Well: MW20-2

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 7822DT (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	22-Jan-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.81 m RTD
Number:	122120345	**Top of casing elevation:**	99.66 m RTD
Field investigator:	J. Hale	**Easting:**	607186.4
Contractor:	Strata Drilling Group	**Northing:**	4812031

SUBSURFACE PROFILE				SAMPLE DETAILS					INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	%LEL Comb▲ 20 40 60 80 / ppm OTOV ● Comb 200 400 600 800	Diagram / Description
			Ground Surface	99.81						
			ASPHALT	0.00 99.61						Flushmount protective cover with concrete seal
			GRAVEL	0.20 99.58						
			SAND brown, moist	0.23 99.48						
			WOOD decomposed	0.33 99.38						50 mm ID PVC pipe backfilled with bentonite
2			SAND brown to orange, moist	0.43	1	DP	20" 33%	VOC, PHC F1 to F4, pH	<5 ● ○ 2.0	
	1									
4										
			- brown							
6					2	DP	18" 30%		<5 ● ○ 1.0	
	2									
8			- trace silt, wet							Groundwater Level: 2.55 m BGS 23-Jan-20
										50 mm ID slotted PVC pipe backfilled with silica sand
10	3				3	DP	41" 98%		<5 ● ○ 1.0	
12				96.00						
			SILT TILL grey, stiff, moist	3.81	4				<5 ● ○ 1.0	
	4									
				95.70						
14			End of Borehole	4.11						

Screen Interval: 1.07 - 4.11 m BGS
Sand Pack Interval: 0.76 - 4.11 m BGS
Well Seal Interval: 0.23 - 0.76 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

Monitoring Well: MW20-3

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 7822DT (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	22-Jan-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.97 m RTD
Number:	122120345	**Top of casing elevation:**	99.82 m RTD
Field investigator:	J. Hale	**Easting:**	607159.2
Contractor:	Strata Drilling Group	**Northing:**	4812010

Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) / Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	%LEL / ppm (OTOV, Comb)	Diagram	Description
			Ground Surface	99.97							
			ASPHALT crushed	0.00 99.84							Flushmount protective cover with concrete seal
			SAND (FILL) brown, trace to some silt, trace gravel, moist	0.13							50 mm ID PVC pipe backfilled with bentonite
2	1				1	DP	20" 33%		<5 1.0		
4				98.45							
			SILTY GRAVEL (FILL) moist	1.52 98.37							
			SILTY SAND (FILL) brown, with red, grey and orange variations throughout, trace gravel, very moist to wet	1.60							
6	2				2	DP	20" 33%	BTEX, PHC F1 to F4, PAH, Metals, Inorganics, pH	<5 2.0		
8											50 mm ID slotted PVC pipe backfilled with silica sand
10	3			96.92							Groundwater Level: 2.60 m BGS 23-Jan-20
			GRAVEL (FILL) crushed	3.05 96.87							
			SILTY SAND (FILL) brown, wet	3.10	3	DP	44" 105%		<5 1.0		
12				96.31							
			SILT TILL grey, stiff, moist	3.66							
	4				4				<5 1.0		
				95.86							
			End of Borehole	4.11							
14											

Screen Interval: 1.07 - 4.11 m BGS
Sand Pack Interval: 0.76 - 4.11 m BGS
Well Seal Interval: 0.23 - 0.76 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

Monitoring Well: MW20-4

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 7822DT (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	22-Jan-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	100.01 m RTD
Number:	122120345	**Top of casing elevation:**	99.87 m RTD
Field investigator:	J. Hale	**Easting:**	607152.6
Contractor:	Strata Drilling Group	**Northing:**	4812011

Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	%LEL Comb▲ 20 40 60 80 / ppm OTOV ● Comb 200 400 600 800	Diagram	Description
			Ground Surface	100.01							
			ASPHALT	0.00 99.91							
			SILT (FILL) dark brown, some sand and organics, trace clay, moist	0.10							
2	1				1	DP	12" 20%		<5 ● ○ 4.0		Flushmount protective cover with concrete seal 50 mm ID PVC pipe backfilled with bentonite
				98.49							
			GRAVEL (FILL) crushed, moist	1.52 98.41							
			SAND (FILL) brown, trace silt, moist - trace gravel, wet	1.60							
6	2				2	DP	19" 32%		<5 ● ○ 2.0		Groundwater Level: 2.47 m BGS 23-Jan-20 50 mm ID slotted PVC pipe backfilled with silica sand
				96.96							
10	3		GRAVEL (FILL) wet	3.05 96.86							
			SAND (FILL) brown, trace silt, wet	3.15	3	DP	40" 95%	BTEX, PHC F1 to F4, PAH, Metals, Inorganics, pH	<5 ● ○ 4.0		
				96.35							
12	4		SILT TILL grey, stiff, moist	3.66	4				<5 ● ○ 3.0		
				95.90							
14			End of Borehole	4.11							

SUBSURFACE PROFILE | SAMPLE DETAILS | INSTALLATION DETAILS

Screen Interval: 1.07 - 4.11 m BGS
Sand Pack Interval: 0.76 - 4.11 m BGS
Well Seal Interval: 0.23 - 0.76 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

STANTEC BOREHOLE AND WELL V2 122120345_BHLOGS.GPJ STANTEC - DATA TEMPLATE.GDT 12/22/20 RCUMARASWAMY

Monitoring Well: MW20-5

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 420M (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	23-Jan-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.01 m RTD
Number:	122120345	**Top of casing elevation:**	98.93 m RTD
Field investigator:	J. Hale	**Easting:**	607163.8
Contractor:	Strata Drilling Group	**Northing:**	4812014

Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) / Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	%LEL (Comb) / ppm (OTOV, Comb)	Diagram	Description
			Ground Surface	99.01							
			BASEMENT	0.00							
				98.02							
	1		CONCRETE	0.99							Flushmount protective cover with concrete seal
			crushed	97.92							
			SAND brown, trace silt, moist	1.09	1	DP	24" 100%	Metals	<5 2.0		50 mm ID PVC pipe backfilled with bentonite
			- trace gravel								
	2		- brown and orange, moist to very moist		2	DP	24" 50%	BTEX, PHC F1 to F4, Inorganics, PAH	<5 3.0		Groundwater Level: 2.62 m BGS 30-Jan-20
			- brown, no gravel, wet		3	DP	48" 100%	Metals	<5 1.0		50 mm ID slotted PVC pipe backfilled with silica sand
				95.53							
			SILT brown, some same, very moist	3.48	4			Metals	<5 <0.02		
				95.02							
	4		TILL grey, stiff, moist	3.99 94.97							
			End of Borehole	4.04							

Screen Interval: 1.91 - 4.04 m BGS
Sand Pack Interval: 1.60 - 4.04 m BGS
Well Seal Interval: 1.22 - 1.60 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

Monitoring Well: MW20-6

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 420M (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	03-Apr-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.01 m RTD
Number:	122120345	**Top of casing elevation:**	98.92 m RTD
Field investigator:	J. Hale	**Easting:**	607165.7
Contractor:	Strata Drilling Group	**Northing:**	4812017

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	Diagram / Description
			Ground Surface	99.01					
			BASEMENT	0.00					
	1		CONCRETE	0.99 97.89					Flushmount protective cover with concrete seal
			SAND (FILL) orange-brown, trace silt and gravel, moist	1.12	1	DP	41" 85%		50 mm ID PVC pipe backfilled with bentonite
	2				2			Metals	
				96.27	3				Groundwater Level: 2.69 m BGS 16-Apr-20
			SAND grey-brown, some gravel, trace silt, wet	2.74		DP	48" 100%		50 mm ID slotted PVC pipe backfilled with silica sand
	3				4			Metals	
					5	DP	24" 100%		
	4			94.97					
			End of Borehole	4.04					

Screen Interval: 1.91 - 4.04 m BGS
Sand Pack Interval: 1.60 - 4.04 m BGS
Well Seal Interval: 1.22 - 1.60 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: M. Ford / S. Brown

Monitoring Well: MW20-7

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 420M (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	03-Apr-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	99.00 m RTD
Number:	122120345	**Top of casing elevation:**	98.97 m RTD
Field investigator:	J. Hale	**Easting:**	607162.1
Contractor:	Strata Drilling Group	**Northing:**	4812015

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	Diagram / Description
			Ground Surface	99.00					
			BASEMENT	0.00					
	1		CONCRETE	98.01 0.99 97.88					Flushmount protective cover with concrete seal
			SAND (FILL) orange-brown, trace silt and gravel, moist	1.12	1	DP	40" 83%		50 mm ID PVC pipe backfilled with bentonite
	2				2			Metals	
				96.79					
			SAND brown, some gravel, trace silt, moist to wet	2.21	3	DP	48" 100%		Groundwater Level: 2.65 m BGS 16-Apr-20
	3		- wet		4			Metals	50 mm ID slotted PVC pipe backfilled with silica sand
			- trace gravel		5	DP	24" 100%		
	4			94.96					
			End of Borehole	4.04					

Screen Interval: 1.91 - 4.04 m BGS
Sand Pack Interval: 1.60 - 4.04 m BGS
Well Seal Interval: 1.22 - 1.60 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: M. Ford / S. Brown

Monitoring Well: MW20-8

Project:	Phase II Environmental Site Assessment	**Method:**	Geoprobe 420M (Direct Push)
Client:	Transmetro Limited	**Date started/completed:**	03-Apr-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	98.98 m RTD
Number:	122120345	**Top of casing elevation:**	98.89 m RTD
Field investigator:	J. Hale	**Easting:**	607162.4
Contractor:	Strata Drilling Group	**Northing:**	4812019

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Elevation (m RTD) Depth (m BGS)	Sample Number	Sample Type	Recovery	Lab Analyses	Diagram / Description
			Ground Surface	98.98					
			BASEMENT	0.00					
2									
				97.99					
	1		CONCRETE	0.99					Flushmount protective cover with concrete seal
				97.86					
4			SAND (FILL) brown, trace silt and gravel, moist	1.12	1	DP	40" 83%		50 mm ID PVC pipe backfilled with bentonite
6					2			Metals	
	2			96.77					
8			SAND grey-brown, trace silt and gravel, moist to wet	2.21	3	DP	42" 88%		Groundwater Level: 2.62 m BGS 16-Apr-20
10	3		- wet		4			Metals	50 mm ID slotted PVC pipe backfilled with silica sand
12					5	DP	24" 100%		
	4			94.94					
14			End of Borehole	4.04					

Screen Interval: 1.91 - 4.04 m BGS
Sand Pack Interval: 1.60 - 4.04 m BGS
Well Seal Interval: 1.22 - 1.60 m BGS

Notes:
m BGS - metres below ground surface
DP - direct push sample
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: M. Ford / S. Brown

Test Pit: TP20-01

Project:	Phase II Environmental Site Assessment	**Method:**	Excavator
Client:	Transmetro Limited	**Date started/completed:**	21-Oct-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	n/a
Number:	122120345	**Top of casing elevation:**	n/a
Field investigator:	J. Hale	**Easting:**	607162.6
Contractor:	iTech	**Northing:**	4812014

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Depth (m BGS)	Sample Number	Sample Type	Recovery	%LEL (Comb▲ 20 40 60 80) ppm (OTOV / Comb ● 200 400 600 800)	Diagram / Description
			Ground Surface						
			ASPHALT	0.00					
			SANDY GRAVEL	0.08					
			gray, moist	0.15					
			SAND brown, trace silt and gravel, moist						
2	1		- clay pipe at 0.6 m BGS		1	GS			
4							n/a		Backfilled with excavated material and nominally compacted
6	2				2	GS			
8			End of Test Pit	2.50					
10	3								
12	4								
14									

Notes:
m BGS - metres below ground surface
GS - grab sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
Metals - Metals and Inorganics

Stantec

Drawn By/Checked By: M. Ford / S. Brown

Test Pit: TP20-02

Project:	Phase II Environmental Site Assessment	**Method:**	Excavator
Client:	Transmetro Limited	**Date started/completed:**	21-Oct-2020
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	n/a
Number:	122120345	**Top of casing elevation:**	n/a
Field investigator:	J. Hale	**Easting:**	607160.8
Contractor:	iTech	**Northing:**	4812016

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Stratigraphic Description	Depth (m BGS)	Sample Number	Sample Type	Recovery	%LEL Comb▲ 20 40 60 80 / ppm OTOV ● Comb 200 400 600 800	Diagram / Description
			Ground Surface						
			ASPHALT	0.00					
			SANDY GRAVEL	0.08					
			gray, moist	0.15					
			SAND brown, trace silt and gravel, moist						
2	1		- clay pipe at 0.6 m BGS		1	GS			
4							n/a		Backfilled with excavated material and nominally compacted
6	2				2	GS			
8			End of Test Pit	2.50					
10	3								
12	4								
14									

Notes:
m BGS - metres below ground surface
GS - grab sample
ppm - parts per million by volume
%LEL - percent lower explosive limit
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds
Metals - Metals and Inorganics

Stantec

Drawn By/Checked By: M. Ford / S. Brown

Test Pit: TP21-1

Project:	Limited Phase II Environmental Site Assessment	**Drilling method:**	Small Track Mounted Excavator
Client:	Transmetro Limited	**Date started/completed:**	14-Apr-2021
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	n/a
Number:	122120345	**Top of casing elevation:**	n/a
Field investigator:	S. Duncan	**Easting:**	n/a
Contractor:	iTech Environmental Services	**Northing:**	n/a

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb / ppm TOV / Comb	Diagram	Description
			Ground Surface							
			Imported sand and gravel (FILL), No soil samples obtained	0.00						
2	1									
4										
6	2		SILTY SAND some gravel, medium, brown	1.98	1	GS	Metals			Backfilled with excavated material and nominally compacted
8			No soil sample recovered	2.29						
10	3		SILTY SAND some gravel, medium, brown	2.90	2	GS	Metals			
12										
	4		End of Test Pit	3.81						
14										

Notes:
m BGS - metres below ground surface
GS - grab sample
ppm - parts per million by volume
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

STANTEC BOREHOLE AND WELL V2 122120345_BHLOGS.GPJ STANTEC - DATA TEMPLATE.GDT 7/9/21 SMCCUTCHEON

Test Pit: TP21-2

Project:	Limited Phase II Environmental Site Assessment	**Drilling method:**	Small Track Mounted Excavator
Client:	Transmetro Limited	**Date started/completed:**	14-Apr-2021
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	n/a
Number:	122120345	**Top of casing elevation:**	n/a
Field investigator:	S. Duncan	**Easting:**	n/a
Contractor:	iTech Environmental Services	**Northing:**	n/a

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL Comb 20 40 60 80 / ppm TOV Comb 200 400 600 800	Diagram / Description
			Ground Surface						
			Imported sand and gravel (FILL), No soil samples obtained	0.00					
2	1								
4									
6	2		SILTY SAND some gravel, medium, brown	1.98	1	GS	Metals		Backfilled with excavated material and nominally compacted
8			No soil sample recovered	2.29					
10	3		SAND medium, brown, petroleum hydrocarbons odour (PHC) and black PHC staining observed between 2.9 m to 3.2 m BGS	2.90	2	GS	BTEX, PHC F1-F4, Metals		
			End of Test Pit	3.20					
12	4								
14									

Notes:
m BGS - metres below ground surface
GS - grab sample
ppm - parts per million by volume
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

Test Pit: TP21-3

Project:	Limited Phase II Environmental Site Assessment	**Drilling method:**	Small Track Mounted Excavator
Client:	Transmetro Limited	**Date started/completed:**	14-Apr-2021
Location:	358 Reynolds Street, Oakville	**Ground surface elevation:**	n/a
Number:	122120345	**Top of casing elevation:**	n/a
Field investigator:	S. Duncan	**Easting:**	n/a
Contractor:	iTech Environmental Services	**Northing:**	n/a

SUBSURFACE PROFILE				SAMPLE DETAILS				INSTALLATION DETAILS	
Depth (ft)	Depth (m)	Graphic Log	Lithologic Description	Depth (m BGS)	Sample Number	Sample Type	Lab Analyses	%LEL / ppm	Diagram / Description
			Ground Surface						
			Imported sand and gravel (FILL), No soil samples obtained	0.00					Backfilled with excavated material and nominally compacted
			SILTY SAND (FILL) some gravel, medium, brown, wet	2.44	1	GS	Metals & Inorganics, VOC, PHC F1-F4, PAH	<5 / <0.02	
			End of Test Pit	2.74					

%LEL: Comb ▲ 20 40 60 80; ppm: TOV ○ 200 400 600 800, Comb ●

Notes:
m BGS - metres below ground surface
GS - grab sample
ppm - parts per million by volume
n/a - not available

BTEX - Benzene, Toluene, Ethylbenzene, Xylenes
PHC F1 to F4 - Petroleum Hydrocarbon Fractions 1 to 4
PAH - Polycyclic Aromatic Hydrocarbons
VOC - Volatile Organic Compounds

Stantec

Drawn By/Checked By: S. McCutcheon / S. Brown

Grain Size Analysis Report

Client Sample ID: GRAIN SIZE 1 (LWF074)
Maxxam Sample ID: XH7235-01
Maxxam Job #: C006675

Tot. Sample Wt (g)*: 14.31
> 2 mm Sample Wt (g)*: 0.05
* Dry mass based on Sieve Aliquot

Batch # (Sieve): 9755065
Batch # (Hydro): 9754595

Analysis Date (Sieve): 2020/02/05
Analysis Date (Hydro): 2020/02/04

	Description	Particle Size (mm)	Percent Passing
Sieve	Sieve 4	4.750	99.9
	Sieve 10	2.000	99.7
	Sieve 20	0.850	99.4
	Sieve 40	0.425	97.1
	Sieve 100	0.150	13.3
	Sieve 200	0.075	2.0
Hydrometer	R1min	0.0518	2.3
	R3min	0.0301	1.7
	R10min	0.0165	1.1
	R30min	0.0095	0.6
	R90min	0.0055	0.6
	R270min	0.0032	0.6
	R1080min	0.0016	0.6

Grain Size Proportion (%)**:

	Min (mm)	Max (mm)	Percentage
Sand	0.050	2.000	97.8
Silt	0.002	0.050	1.7
Clay	-	0.002	0.6

** Calculations based only on sub 2 mm fraction.
Compatible with USDA and Canadian Soil Triangles

Soil Classification***:

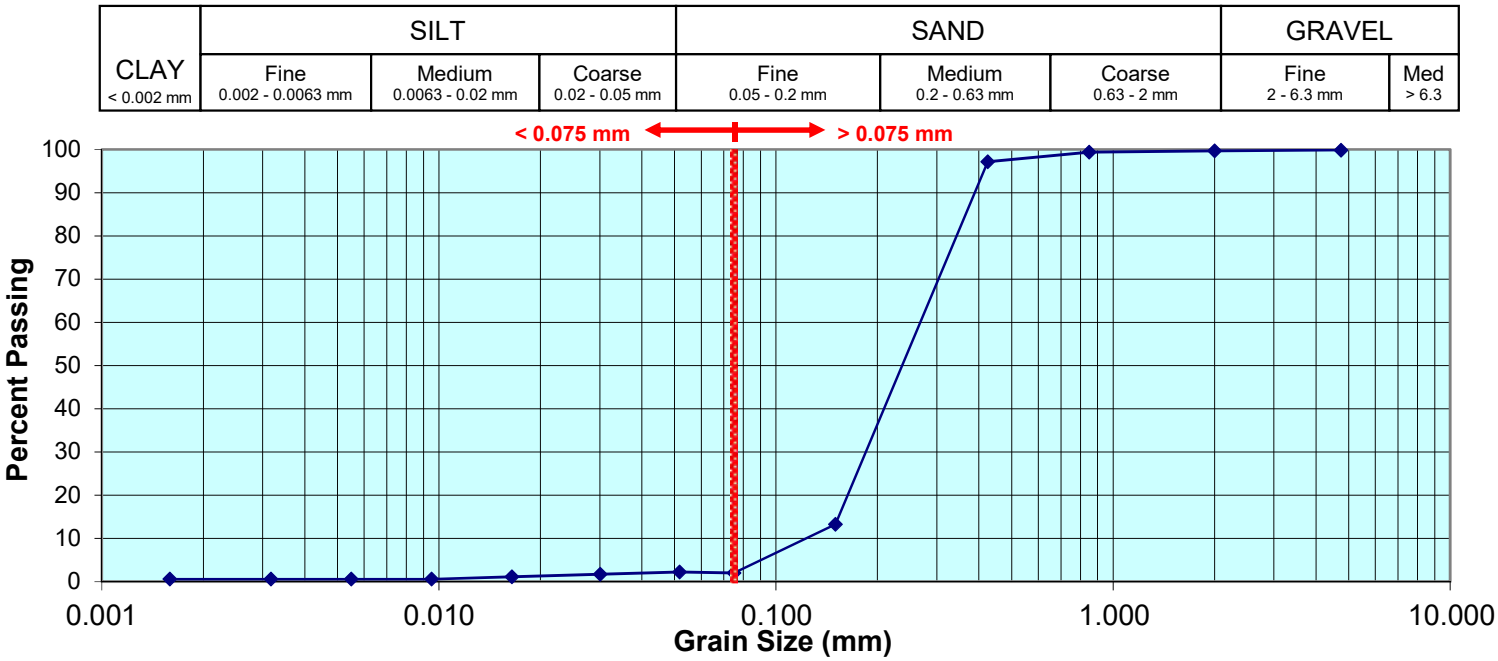
Based on the entire sample

Percentage (by mass) less than 0.075 mm = 2.0
Classification = Coarse Textured Soil

Based on the < 2 mm fraction **

Percentage (by mass) less than 0.075 mm = 2.0
Classification = Coarse Textured Soil

**** Grain size analysis performed to classify the soil material according to the criteria prescribed in Section 42.2 of Ontario Regulation 153/04 as amended by Ontario Regulation 511/09, and conducted in accordance with test procedures outlined in ASTM D422.



*** ON Regulation 153/04 requires coarse:fine determination on the < 2 mm fraction. Other jurisdictions may require the entire sample, thus both classifications are provided

Note: Clay/Silt/Sand/Gravel Graphic above Graph: Sand | Silt | Clay fractions in accordance with USDA and Canadian System of Soil Classification. Sub fractions in accordance with the British (BSI) system for information purposes.

Grain Size Analysis Report (QA-SRM)

Sieve Batch #: 9755065

Hydrometer Batch #: 9754595

Standard Reference Material

			Acceptance Limits	
	Fraction	% Recovery	Minimum	Maximum
Sieve	> 0.075 mm	99	75	125
	< 0.075 mm	100	75	125
Hydrometer	Sand	98	87	113
	Silt	109	90	110
	Clay	83	79	121

A.3 CERTIFICATES OF ANALYSIS OR ANALYTICAL REPORTS FROM LABORATORIES

Your Project #: 122120345
Your C.O.C. #: 756407-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/05
Report #: R6063497
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C028186
Received: 2020/01/31, 14:54

Sample Matrix: Water
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2020/02/05	CAM SOP-00301	EPA 8270D m
Chloride by Automated Colourimetry	4	N/A	2020/02/03	CAM SOP-00463	SM 23 4500-Cl E m
Chromium (VI) in Water	4	N/A	2020/02/04	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	4	N/A	2020/02/04	CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	10	N/A	2020/02/03	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	10	2020/02/04	2020/02/05	CAM SOP-00316	CCME PHC-CWS m
Mercury	4	2020/02/03	2020/02/03	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	4	N/A	2020/02/03	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM)	4	2020/02/04	2020/02/05	CAM SOP-00318	EPA 8270D m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

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 Laboratories 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

Your Project #: 122120345
Your C.O.C. #: 756407-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/05
Report #: R6063497
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C028186
Received: 2020/01/31, 14:54

September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C028186
Report Date: 2020/02/05

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

O.REG 153 METALS & INORGANICS PKG (WTR)

BV Labs ID		LXI730			LXI730			LXI731	LXI732		
Sampling Date		2020/01/30 11:20			2020/01/30 11:20			2020/01/30 12:00	2020/01/30		
COC Number		756407-01-01			756407-01-01			756407-01-01	756407-01-01		
	UNITS	MW20-3	RDL	QC Batch	MW20-3 Lab-Dup	RDL	QC Batch	MW20-4	QC-01	RDL	QC Batch
Inorganics											
WAD Cyanide (Free)	ug/L	<1	1	6570004				<1	<1	1	6570004
Dissolved Chloride (Cl-)	mg/L	1200	15	6568389				460	460	5.0	6568389
Metals											
Chromium (VI)	ug/L	<0.50	0.50	6571177				0.63	0.58	0.50	6571177
Mercury (Hg)	ug/L	<0.1	0.1	6569254				<0.1	<0.1	0.1	6569254
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	6568526	<0.50	0.50	6568526	<0.50	<0.50	0.50	6566690
Dissolved Arsenic (As)	ug/L	1.4	1.0	6568526	1.4	1.0	6568526	<1.0	<1.0	1.0	6566690
Dissolved Barium (Ba)	ug/L	120	2.0	6568526	120	2.0	6568526	34	33	2.0	6566690
Dissolved Beryllium (Be)	ug/L	<0.50	0.50	6568526	<0.50	0.50	6568526	<0.50	<0.50	0.50	6566690
Dissolved Boron (B)	ug/L	110	10	6568526	110	10	6568526	29	29	10	6566690
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	6568526	<0.10	0.10	6568526	<0.10	<0.10	0.10	6566690
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	6568526	<5.0	5.0	6568526	<5.0	<5.0	5.0	6566690
Dissolved Cobalt (Co)	ug/L	2.7	0.50	6568526	2.7	0.50	6568526	<0.50	<0.50	0.50	6566690
Dissolved Copper (Cu)	ug/L	1.0	1.0	6568526	1.0	1.0	6568526	1.3	1.3	1.0	6566690
Dissolved Lead (Pb)	ug/L	<0.50	0.50	6568526	<0.50	0.50	6568526	<0.50	<0.50	0.50	6566690
Dissolved Molybdenum (Mo)	ug/L	8.0	0.50	6568526	7.8	0.50	6568526	0.64	0.59	0.50	6566690
Dissolved Nickel (Ni)	ug/L	2.8	1.0	6568526	2.5	1.0	6568526	<1.0	<1.0	1.0	6566690
Dissolved Selenium (Se)	ug/L	<2.0	2.0	6568526	<2.0	2.0	6568526	<2.0	<2.0	2.0	6566690
Dissolved Silver (Ag)	ug/L	<0.10	0.10	6568526	<0.10	0.10	6568526	<0.10	<0.10	0.10	6566690
Dissolved Sodium (Na)	ug/L	790000	500	6568526	780000	500	6568526	330000	330000	100	6566690
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	6568526	<0.050	0.050	6568526	<0.050	<0.050	0.050	6566690
Dissolved Uranium (U)	ug/L	1.7	0.10	6568526	1.8	0.10	6568526	1.6	1.6	0.10	6566690
Dissolved Vanadium (V)	ug/L	<0.50	0.50	6568526	<0.50	0.50	6568526	<0.50	<0.50	0.50	6566690
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	6568526	<5.0	5.0	6568526	<5.0	<5.0	5.0	6566690

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

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

O.REG 153 METALS & INORGANICS PKG (WTR)

BV Labs ID		LXI733		
Sampling Date		2020/01/30 12:40		
COC Number		756407-01-01		
	UNITS	MW20-5	RDL	QC Batch
Inorganics				
WAD Cyanide (Free)	ug/L	<1	1	6570004
Dissolved Chloride (Cl-)	mg/L	730	10	6568389
Metals				
Chromium (VI)	ug/L	<0.50	0.50	6571177
Mercury (Hg)	ug/L	1.4	0.1	6569254
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	6568526
Dissolved Arsenic (As)	ug/L	<1.0	1.0	6568526
Dissolved Barium (Ba)	ug/L	80	2.0	6568526
Dissolved Beryllium (Be)	ug/L	<0.50	0.50	6568526
Dissolved Boron (B)	ug/L	65	10	6568526
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	6568526
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	6568526
Dissolved Cobalt (Co)	ug/L	1.3	0.50	6568526
Dissolved Copper (Cu)	ug/L	7.4	1.0	6568526
Dissolved Lead (Pb)	ug/L	<0.50	0.50	6568526
Dissolved Molybdenum (Mo)	ug/L	4.6	0.50	6568526
Dissolved Nickel (Ni)	ug/L	2.5	1.0	6568526
Dissolved Selenium (Se)	ug/L	<2.0	2.0	6568526
Dissolved Silver (Ag)	ug/L	0.47	0.10	6568526
Dissolved Sodium (Na)	ug/L	450000	100	6568526
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	6568526
Dissolved Uranium (U)	ug/L	1.5	0.10	6568526
Dissolved Vanadium (V)	ug/L	<0.50	0.50	6568526
Dissolved Zinc (Zn)	ug/L	5.4	5.0	6568526

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

O.REG 153 PAHS (WATER)

BV Labs ID		LXI730	LXI731	LXI732	LXI733		
Sampling Date		2020/01/30 11:20	2020/01/30 12:00	2020/01/30	2020/01/30 12:40		
COC Number		756407-01-01	756407-01-01	756407-01-01	756407-01-01		
	UNITS	MW20-3	MW20-4	QC-01	MW20-5	RDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	<0.071	0.071	6566339
Polyaromatic Hydrocarbons							
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Benzo(a)pyrene	ug/L	<0.010	<0.010	<0.010	<0.010	0.010	6572896
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Naphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Phenanthrene	ug/L	<0.030	<0.030	<0.030	<0.030	0.030	6572896
Pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6572896
Surrogate Recovery (%)							
D10-Anthracene	%	104	99	110	115		6572896
D14-Terphenyl (FS)	%	101	89	96	122		6572896
D8-Acenaphthylene	%	100	94	103	104		6572896

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C028186
Report Date: 2020/02/05

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

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

BV Labs ID		LXI728	LXI729		LXI730	LXI731	LXI732		
Sampling Date		2020/01/30 10:00	2020/01/30 10:40		2020/01/30 11:20	2020/01/30 12:00	2020/01/30		
COC Number		756407-01-01	756407-01-01		756407-01-01	756407-01-01	756407-01-01		
	UNITS	MW20-1	MW20-2	QC Batch	MW20-3	MW20-4	QC-01	RDL	QC Batch
BTEX & F1 Hydrocarbons									
Benzene	ug/L	<0.20	<0.20	6569743	<0.20	<0.20	<0.20	0.20	6569743
Toluene	ug/L	<0.20	<0.20	6569743	<0.20	<0.20	<0.20	0.20	6569743
Ethylbenzene	ug/L	<0.20	<0.20	6569743	<0.20	<0.20	<0.20	0.20	6569743
o-Xylene	ug/L	<0.20	<0.20	6569743	<0.20	<0.20	<0.20	0.20	6569743
p+m-Xylene	ug/L	<0.40	<0.40	6569743	<0.40	<0.40	<0.40	0.40	6569743
Total Xylenes	ug/L	<0.40	<0.40	6569743	<0.40	<0.40	<0.40	0.40	6569743
F1 (C6-C10)	ug/L	<25	<25	6569743	<25	<25	<25	25	6569743
F1 (C6-C10) - BTEX	ug/L	<25	<25	6569743	<25	<25	<25	25	6569743
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	6572496	<100	<100	<100	100	6572888
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	6572496	<200	<200	<200	200	6572888
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	6572496	<200	<200	<200	200	6572888
Reached Baseline at C50	ug/L	Yes	Yes	6572496	Yes	Yes	Yes		6572888
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	101	101	6569743	100	102	99		6569743
4-Bromofluorobenzene	%	103	101	6569743	101	103	100		6569743
D10-Ethylbenzene	%	114	113	6569743	113	113	111		6569743
D4-1,2-Dichloroethane	%	104	103	6569743	102	107	104		6569743
o-Terphenyl	%	108	108	6572496	112	119	121		6572888

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C028186
Report Date: 2020/02/05

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

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

BV Labs ID		LXI733		LXI734	LXI735	LXI736	LXI737		
Sampling Date		2020/01/30 12:40		2020/01/30 13:20	2020/01/30 14:00	2020/01/30	2020/01/30		
COC Number		756407-01-01		756407-01-01	756407-01-01	756407-01-01	756407-01-01		
	UNITS	MW20-5	QC Batch	BH-2	MW-3	QC-02	TRIP BLANK	RDL	QC Batch
BTEX & F1 Hydrocarbons									
Benzene	ug/L	<0.20	6569743	<0.20	<0.20	<0.20	<0.20	0.20	6569743
Toluene	ug/L	<0.20	6569743	<0.20	<0.20	<0.20	<0.20	0.20	6569743
Ethylbenzene	ug/L	<0.20	6569743	<0.20	<0.20	<0.20	<0.20	0.20	6569743
o-Xylene	ug/L	<0.20	6569743	<0.20	<0.20	<0.20	<0.20	0.20	6569743
p+m-Xylene	ug/L	<0.40	6569743	<0.40	<0.40	<0.40	<0.40	0.40	6569743
Total Xylenes	ug/L	<0.40	6569743	<0.40	<0.40	<0.40	<0.40	0.40	6569743
F1 (C6-C10)	ug/L	<25	6569743	<25	<25	<25	<25	25	6569743
F1 (C6-C10) - BTEX	ug/L	<25	6569743	<25	<25	<25	<25	25	6569743
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	<100	6572888	<100	<100	<100	<100	100	6572496
F3 (C16-C34 Hydrocarbons)	ug/L	<200	6572888	<200	<200	<200	<200	200	6572496
F4 (C34-C50 Hydrocarbons)	ug/L	<200	6572888	<200	<200	<200	<200	200	6572496
Reached Baseline at C50	ug/L	Yes	6572888	Yes	Yes	Yes	Yes		6572496
Surrogate Recovery (%)									
1,4-Difluorobenzene	%	102	6569743	101	102	103	98		6569743
4-Bromofluorobenzene	%	102	6569743	100	101	101	99		6569743
D10-Ethylbenzene	%	112	6569743	111	113	115	112		6569743
D4-1,2-Dichloroethane	%	107	6569743	105	107	106	105		6569743
o-Terphenyl	%	129	6572888	108	108	102	99		6572496

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

BV Labs ID: LXI728 **Collected:** 2020/01/30
Sample ID: MW20-1 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

BV Labs ID: LXI729 **Collected:** 2020/01/30
Sample ID: MW20-2 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

BV Labs ID: LXI730 **Collected:** 2020/01/30
Sample ID: MW20-3 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6566339	N/A	2020/02/05	Automated Statchk
Chloride by Automated Colourimetry	KONE	6568389	N/A	2020/02/03	Deonarine Ramnarine
Chromium (VI) in Water	IC	6571177	N/A	2020/02/04	Rupinder Sihota
Free (WAD) Cyanide	SKAL/CN	6570004	N/A	2020/02/04	Gnana Thomas
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572888	2020/02/04	2020/02/05	Prabhjot Gulati
Mercury	CV/AA	6569254	2020/02/03	2020/02/03	Medhat Nasr
Dissolved Metals by ICPMS	ICP/MS	6568526	N/A	2020/02/03	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	6572896	2020/02/04	2020/02/05	Jett Wu

BV Labs ID: LXI730 Dup **Collected:** 2020/01/30
Sample ID: MW20-3 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Dissolved Metals by ICPMS	ICP/MS	6568526	N/A	2020/02/03	Arefa Dabhad

BV Labs ID: LXI731 **Collected:** 2020/01/30
Sample ID: MW20-4 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6566339	N/A	2020/02/05	Automated Statchk
Chloride by Automated Colourimetry	KONE	6568389	N/A	2020/02/03	Deonarine Ramnarine
Chromium (VI) in Water	IC	6571177	N/A	2020/02/04	Rupinder Sihota
Free (WAD) Cyanide	SKAL/CN	6570004	N/A	2020/02/04	Gnana Thomas
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572888	2020/02/04	2020/02/05	Prabhjot Gulati
Mercury	CV/AA	6569254	2020/02/03	2020/02/03	Medhat Nasr
Dissolved Metals by ICPMS	ICP/MS	6566690	N/A	2020/02/03	Arefa Dabhad

TEST SUMMARY

BV Labs ID: LXI731 **Collected:** 2020/01/30
Sample ID: MW20-4 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Water by GC/MS (SIM)	GC/MS	6572896	2020/02/04	2020/02/05	Jett Wu

BV Labs ID: LXI732 **Collected:** 2020/01/30
Sample ID: QC-01 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6566339	N/A	2020/02/05	Automated Statchk
Chloride by Automated Colourimetry	KONE	6568389	N/A	2020/02/03	Deonarine Ramnarine
Chromium (VI) in Water	IC	6571177	N/A	2020/02/04	Rupinder Sihota
Free (WAD) Cyanide	SKAL/CN	6570004	N/A	2020/02/04	Gnana Thomas
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572888	2020/02/04	2020/02/05	Prabhjot Gulati
Mercury	CV/AA	6569254	2020/02/03	2020/02/03	Medhat Nasr
Dissolved Metals by ICPMS	ICP/MS	6566690	N/A	2020/02/03	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	6572896	2020/02/04	2020/02/05	Jett Wu

BV Labs ID: LXI733 **Collected:** 2020/01/30
Sample ID: MW20-5 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6566339	N/A	2020/02/05	Automated Statchk
Chloride by Automated Colourimetry	KONE	6568389	N/A	2020/02/03	Deonarine Ramnarine
Chromium (VI) in Water	IC	6571177	N/A	2020/02/04	Rupinder Sihota
Free (WAD) Cyanide	SKAL/CN	6570004	N/A	2020/02/04	Gnana Thomas
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572888	2020/02/04	2020/02/05	Prabhjot Gulati
Mercury	CV/AA	6569254	2020/02/03	2020/02/03	Medhat Nasr
Dissolved Metals by ICPMS	ICP/MS	6568526	N/A	2020/02/03	Arefa Dabhad
PAH Compounds in Water by GC/MS (SIM)	GC/MS	6572896	2020/02/04	2020/02/05	Jett Wu

BV Labs ID: LXI734 **Collected:** 2020/01/30
Sample ID: BH-2 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

BV Labs ID: LXI735 **Collected:** 2020/01/30
Sample ID: MW-3 **Shipped:**
Matrix: Water **Received:** 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu

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BV Labs Job #: C028186
Report Date: 2020/02/05

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: LXI735
Sample ID: MW-3
Matrix: Water

Collected: 2020/01/30
Shipped:
Received: 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

BV Labs ID: LXI736
Sample ID: QC-02
Matrix: Water

Collected: 2020/01/30
Shipped:
Received: 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

BV Labs ID: LXI737
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2020/01/30
Shipped:
Received: 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	6569743	N/A	2020/02/03	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	6572496	2020/02/04	2020/02/05	Prabhjot Gulati

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GENERAL COMMENTS

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

Package 1	0.7°C
Package 2	1.3°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6566690	ADA	Matrix Spike	Dissolved Antimony (Sb)	2020/02/03		101	%	80 - 120
			Dissolved Arsenic (As)	2020/02/03		100	%	80 - 120
			Dissolved Barium (Ba)	2020/02/03		99	%	80 - 120
			Dissolved Beryllium (Be)	2020/02/03		100	%	80 - 120
			Dissolved Boron (B)	2020/02/03		97	%	80 - 120
			Dissolved Cadmium (Cd)	2020/02/03		99	%	80 - 120
			Dissolved Chromium (Cr)	2020/02/03		93	%	80 - 120
			Dissolved Cobalt (Co)	2020/02/03		98	%	80 - 120
			Dissolved Copper (Cu)	2020/02/03		101	%	80 - 120
			Dissolved Lead (Pb)	2020/02/03		99	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/02/03		102	%	80 - 120
			Dissolved Nickel (Ni)	2020/02/03		95	%	80 - 120
			Dissolved Selenium (Se)	2020/02/03		101	%	80 - 120
			Dissolved Silver (Ag)	2020/02/03		95	%	80 - 120
			Dissolved Sodium (Na)	2020/02/03		98	%	80 - 120
			Dissolved Thallium (Tl)	2020/02/03		101	%	80 - 120
			Dissolved Uranium (U)	2020/02/03		99	%	80 - 120
			Dissolved Vanadium (V)	2020/02/03		98	%	80 - 120
			Dissolved Zinc (Zn)	2020/02/03		97	%	80 - 120
6566690	ADA	Spiked Blank	Dissolved Antimony (Sb)	2020/02/03		99	%	80 - 120
			Dissolved Arsenic (As)	2020/02/03		98	%	80 - 120
			Dissolved Barium (Ba)	2020/02/03		99	%	80 - 120
			Dissolved Beryllium (Be)	2020/02/03		99	%	80 - 120
			Dissolved Boron (B)	2020/02/03		97	%	80 - 120
			Dissolved Cadmium (Cd)	2020/02/03		98	%	80 - 120
			Dissolved Chromium (Cr)	2020/02/03		91	%	80 - 120
			Dissolved Cobalt (Co)	2020/02/03		96	%	80 - 120
			Dissolved Copper (Cu)	2020/02/03		102	%	80 - 120
			Dissolved Lead (Pb)	2020/02/03		97	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/02/03		97	%	80 - 120
			Dissolved Nickel (Ni)	2020/02/03		95	%	80 - 120
			Dissolved Selenium (Se)	2020/02/03		98	%	80 - 120
			Dissolved Silver (Ag)	2020/02/03		94	%	80 - 120
			Dissolved Sodium (Na)	2020/02/03		98	%	80 - 120
			Dissolved Thallium (Tl)	2020/02/03		100	%	80 - 120
			Dissolved Uranium (U)	2020/02/03		96	%	80 - 120
			Dissolved Vanadium (V)	2020/02/03		95	%	80 - 120
			Dissolved Zinc (Zn)	2020/02/03		95	%	80 - 120
6566690	ADA	Method Blank	Dissolved Antimony (Sb)	2020/02/03	<0.50		ug/L	
			Dissolved Arsenic (As)	2020/02/03	<1.0		ug/L	
			Dissolved Barium (Ba)	2020/02/03	<2.0		ug/L	
			Dissolved Beryllium (Be)	2020/02/03	<0.50		ug/L	
			Dissolved Boron (B)	2020/02/03	<10		ug/L	
			Dissolved Cadmium (Cd)	2020/02/03	<0.10		ug/L	
			Dissolved Chromium (Cr)	2020/02/03	<5.0		ug/L	
			Dissolved Cobalt (Co)	2020/02/03	<0.50		ug/L	
			Dissolved Copper (Cu)	2020/02/03	<1.0		ug/L	
			Dissolved Lead (Pb)	2020/02/03	<0.50		ug/L	
			Dissolved Molybdenum (Mo)	2020/02/03	<0.50		ug/L	
			Dissolved Nickel (Ni)	2020/02/03	<1.0		ug/L	
			Dissolved Selenium (Se)	2020/02/03	<2.0		ug/L	
			Dissolved Silver (Ag)	2020/02/03	<0.10		ug/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Sodium (Na)	2020/02/03	<100		ug/L	
			Dissolved Thallium (Tl)	2020/02/03	<0.050		ug/L	
			Dissolved Uranium (U)	2020/02/03	<0.10		ug/L	
			Dissolved Vanadium (V)	2020/02/03	<0.50		ug/L	
			Dissolved Zinc (Zn)	2020/02/03	<5.0		ug/L	
6566690	ADA	RPD	Dissolved Lead (Pb)	2020/02/03	NC		%	20
6568389	DRM	Matrix Spike	Dissolved Chloride (Cl-)	2020/02/03		111	%	80 - 120
6568389	DRM	Spiked Blank	Dissolved Chloride (Cl-)	2020/02/03		102	%	80 - 120
6568389	DRM	Method Blank	Dissolved Chloride (Cl-)	2020/02/03	<1.0		mg/L	
6568389	DRM	RPD	Dissolved Chloride (Cl-)	2020/02/03	0.77		%	20
6568526	ADA	Matrix Spike [LXI730-08]	Dissolved Antimony (Sb)	2020/02/03		104	%	80 - 120
			Dissolved Arsenic (As)	2020/02/03		100	%	80 - 120
			Dissolved Barium (Ba)	2020/02/03		102	%	80 - 120
			Dissolved Beryllium (Be)	2020/02/03		101	%	80 - 120
			Dissolved Boron (B)	2020/02/03		95	%	80 - 120
			Dissolved Cadmium (Cd)	2020/02/03		99	%	80 - 120
			Dissolved Chromium (Cr)	2020/02/03		93	%	80 - 120
			Dissolved Cobalt (Co)	2020/02/03		98	%	80 - 120
			Dissolved Copper (Cu)	2020/02/03		103	%	80 - 120
			Dissolved Lead (Pb)	2020/02/03		94	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/02/03		105	%	80 - 120
			Dissolved Nickel (Ni)	2020/02/03		93	%	80 - 120
			Dissolved Selenium (Se)	2020/02/03		97	%	80 - 120
			Dissolved Silver (Ag)	2020/02/03		92	%	80 - 120
			Dissolved Sodium (Na)	2020/02/03		NC	%	80 - 120
			Dissolved Thallium (Tl)	2020/02/03		95	%	80 - 120
			Dissolved Uranium (U)	2020/02/03		97	%	80 - 120
			Dissolved Vanadium (V)	2020/02/03		100	%	80 - 120
			Dissolved Zinc (Zn)	2020/02/03		94	%	80 - 120
6568526	ADA	Spiked Blank	Dissolved Antimony (Sb)	2020/02/03		98	%	80 - 120
			Dissolved Arsenic (As)	2020/02/03		97	%	80 - 120
			Dissolved Barium (Ba)	2020/02/03		97	%	80 - 120
			Dissolved Beryllium (Be)	2020/02/03		96	%	80 - 120
			Dissolved Boron (B)	2020/02/03		94	%	80 - 120
			Dissolved Cadmium (Cd)	2020/02/03		96	%	80 - 120
			Dissolved Chromium (Cr)	2020/02/03		91	%	80 - 120
			Dissolved Cobalt (Co)	2020/02/03		94	%	80 - 120
			Dissolved Copper (Cu)	2020/02/03		99	%	80 - 120
			Dissolved Lead (Pb)	2020/02/03		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/02/03		96	%	80 - 120
			Dissolved Nickel (Ni)	2020/02/03		94	%	80 - 120
			Dissolved Selenium (Se)	2020/02/03		98	%	80 - 120
			Dissolved Silver (Ag)	2020/02/03		92	%	80 - 120
			Dissolved Sodium (Na)	2020/02/03		99	%	80 - 120
			Dissolved Thallium (Tl)	2020/02/03		103	%	80 - 120
			Dissolved Uranium (U)	2020/02/03		99	%	80 - 120
			Dissolved Vanadium (V)	2020/02/03		94	%	80 - 120
			Dissolved Zinc (Zn)	2020/02/03		95	%	80 - 120
6568526	ADA	Method Blank	Dissolved Antimony (Sb)	2020/02/03	<0.50		ug/L	
			Dissolved Arsenic (As)	2020/02/03	<1.0		ug/L	
			Dissolved Barium (Ba)	2020/02/03	<2.0		ug/L	
			Dissolved Beryllium (Be)	2020/02/03	<0.50		ug/L	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Boron (B)	2020/02/03	<10		ug/L	
			Dissolved Cadmium (Cd)	2020/02/03	<0.10		ug/L	
			Dissolved Chromium (Cr)	2020/02/03	<5.0		ug/L	
			Dissolved Cobalt (Co)	2020/02/03	<0.50		ug/L	
			Dissolved Copper (Cu)	2020/02/03	<1.0		ug/L	
			Dissolved Lead (Pb)	2020/02/03	<0.50		ug/L	
			Dissolved Molybdenum (Mo)	2020/02/03	<0.50		ug/L	
			Dissolved Nickel (Ni)	2020/02/03	<1.0		ug/L	
			Dissolved Selenium (Se)	2020/02/03	<2.0		ug/L	
			Dissolved Silver (Ag)	2020/02/03	<0.10		ug/L	
			Dissolved Sodium (Na)	2020/02/03	<100		ug/L	
			Dissolved Thallium (Tl)	2020/02/03	<0.050		ug/L	
			Dissolved Uranium (U)	2020/02/03	<0.10		ug/L	
			Dissolved Vanadium (V)	2020/02/03	<0.50		ug/L	
			Dissolved Zinc (Zn)	2020/02/03	<5.0		ug/L	
6568526	ADA	RPD [LXI730-08]	Dissolved Antimony (Sb)	2020/02/03	NC		%	20
			Dissolved Arsenic (As)	2020/02/03	0.15		%	20
			Dissolved Barium (Ba)	2020/02/03	0.022		%	20
			Dissolved Beryllium (Be)	2020/02/03	NC		%	20
			Dissolved Boron (B)	2020/02/03	0.44		%	20
			Dissolved Cadmium (Cd)	2020/02/03	NC		%	20
			Dissolved Chromium (Cr)	2020/02/03	NC		%	20
			Dissolved Cobalt (Co)	2020/02/03	1.3		%	20
			Dissolved Copper (Cu)	2020/02/03	1.6		%	20
			Dissolved Lead (Pb)	2020/02/03	NC		%	20
			Dissolved Molybdenum (Mo)	2020/02/03	2.0		%	20
			Dissolved Nickel (Ni)	2020/02/03	11		%	20
			Dissolved Selenium (Se)	2020/02/03	NC		%	20
			Dissolved Silver (Ag)	2020/02/03	NC		%	20
			Dissolved Sodium (Na)	2020/02/03	0.54		%	20
			Dissolved Thallium (Tl)	2020/02/03	NC		%	20
			Dissolved Uranium (U)	2020/02/03	3.1		%	20
			Dissolved Vanadium (V)	2020/02/03	NC		%	20
			Dissolved Zinc (Zn)	2020/02/03	NC		%	20
6569254	MEN	Matrix Spike	Mercury (Hg)	2020/02/03		94	%	75 - 125
6569254	MEN	Spiked Blank	Mercury (Hg)	2020/02/03		94	%	80 - 120
6569254	MEN	Method Blank	Mercury (Hg)	2020/02/03	<0.1		ug/L	
6569254	MEN	RPD	Mercury (Hg)	2020/02/03	NC		%	20
6569743	DAN	Matrix Spike	1,4-Difluorobenzene	2020/02/03		99	%	70 - 130
			4-Bromofluorobenzene	2020/02/03		102	%	70 - 130
			D10-Ethylbenzene	2020/02/03		102	%	70 - 130
			D4-1,2-Dichloroethane	2020/02/03		105	%	70 - 130
			Benzene	2020/02/03		103	%	70 - 130
			Toluene	2020/02/03		101	%	70 - 130
			Ethylbenzene	2020/02/03		107	%	70 - 130
			o-Xylene	2020/02/03		106	%	70 - 130
			p+m-Xylene	2020/02/03		109	%	70 - 130
			F1 (C6-C10)	2020/02/03		101	%	70 - 130
6569743	DAN	Spiked Blank	1,4-Difluorobenzene	2020/02/03		103	%	70 - 130
			4-Bromofluorobenzene	2020/02/03		99	%	70 - 130
			D10-Ethylbenzene	2020/02/03		96	%	70 - 130
			D4-1,2-Dichloroethane	2020/02/03		103	%	70 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzene	2020/02/03		106	%	70 - 130
			Toluene	2020/02/03		102	%	70 - 130
			Ethylbenzene	2020/02/03		106	%	70 - 130
			o-Xylene	2020/02/03		104	%	70 - 130
			p+m-Xylene	2020/02/03		106	%	70 - 130
			F1 (C6-C10)	2020/02/03		102	%	70 - 130
6569743	DAN	Method Blank	1,4-Difluorobenzene	2020/02/03		102	%	70 - 130
			4-Bromofluorobenzene	2020/02/03		99	%	70 - 130
			D10-Ethylbenzene	2020/02/03		109	%	70 - 130
			D4-1,2-Dichloroethane	2020/02/03		104	%	70 - 130
			Benzene	2020/02/03	<0.20		ug/L	
			Toluene	2020/02/03	<0.20		ug/L	
			Ethylbenzene	2020/02/03	<0.20		ug/L	
			o-Xylene	2020/02/03	<0.20		ug/L	
			p+m-Xylene	2020/02/03	<0.40		ug/L	
			Total Xylenes	2020/02/03	<0.40		ug/L	
			F1 (C6-C10)	2020/02/03	<25		ug/L	
			F1 (C6-C10) - BTEX	2020/02/03	<25		ug/L	
6569743	DAN	RPD	Benzene	2020/02/03	NC		%	30
			Toluene	2020/02/03	NC		%	30
			Ethylbenzene	2020/02/03	NC		%	30
			o-Xylene	2020/02/03	NC		%	30
			p+m-Xylene	2020/02/03	NC		%	30
			Total Xylenes	2020/02/03	NC		%	30
			F1 (C6-C10)	2020/02/03	NC		%	30
			F1 (C6-C10) - BTEX	2020/02/03	NC		%	30
6570004	GTO	Matrix Spike	WAD Cyanide (Free)	2020/02/04		95	%	80 - 120
6570004	GTO	Spiked Blank	WAD Cyanide (Free)	2020/02/04		98	%	80 - 120
6570004	GTO	Method Blank	WAD Cyanide (Free)	2020/02/04	<1		ug/L	
6570004	GTO	RPD	WAD Cyanide (Free)	2020/02/04	0		%	20
6571177	RSU	Matrix Spike	Chromium (VI)	2020/02/04		102	%	80 - 120
6571177	RSU	Spiked Blank	Chromium (VI)	2020/02/04		102	%	80 - 120
6571177	RSU	Method Blank	Chromium (VI)	2020/02/04	<0.50		ug/L	
6571177	RSU	RPD	Chromium (VI)	2020/02/04	6.1		%	20
6572496	GUL	Matrix Spike	o-Terphenyl	2020/02/05		111	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05		105	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2020/02/05		100	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2020/02/05		106	%	50 - 130
6572496	GUL	Spiked Blank	o-Terphenyl	2020/02/05		118	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05		115	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2020/02/05		112	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2020/02/05		117	%	60 - 130
6572496	GUL	Method Blank	o-Terphenyl	2020/02/05		107	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05	<100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2020/02/05	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2020/02/05	<200		ug/L	
6572496	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2020/02/05	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2020/02/05	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2020/02/05	NC		%	30
6572888	GUL	Matrix Spike	o-Terphenyl	2020/02/05		127	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05		117	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2020/02/05		110	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F4 (C34-C50 Hydrocarbons)	2020/02/05		119	%	50 - 130
6572888	GUL	Spiked Blank	o-Terphenyl	2020/02/05		118	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05		112	%	60 - 130
			F3 (C16-C34 Hydrocarbons)	2020/02/05		112	%	60 - 130
			F4 (C34-C50 Hydrocarbons)	2020/02/05		114	%	60 - 130
6572888	GUL	Method Blank	o-Terphenyl	2020/02/05		118	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/02/05	<100		ug/L	
			F3 (C16-C34 Hydrocarbons)	2020/02/05	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2020/02/05	<200		ug/L	
6572888	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2020/02/05	0.96		%	30
			F3 (C16-C34 Hydrocarbons)	2020/02/05	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2020/02/05	NC		%	30
6572896	JET	Matrix Spike	D10-Anthracene	2020/02/05		108	%	50 - 130
			D14-Terphenyl (FS)	2020/02/05		111	%	50 - 130
			D8-Acenaphthylene	2020/02/05		106	%	50 - 130
			Acenaphthene	2020/02/05		72	%	50 - 130
			Acenaphthylene	2020/02/05		72	%	50 - 130
			Anthracene	2020/02/05		92	%	50 - 130
			Benzo(a)anthracene	2020/02/05		100	%	50 - 130
			Benzo(a)pyrene	2020/02/05		98	%	50 - 130
			Benzo(b/j)fluoranthene	2020/02/05		93	%	50 - 130
			Benzo(g,h,i)perylene	2020/02/05		94	%	50 - 130
			Benzo(k)fluoranthene	2020/02/05		94	%	50 - 130
			Chrysene	2020/02/05		93	%	50 - 130
			Dibenzo(a,h)anthracene	2020/02/05		87	%	50 - 130
			Fluoranthene	2020/02/05		105	%	50 - 130
			Fluorene	2020/02/05		77	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2020/02/05		95	%	50 - 130
			1-Methylnaphthalene	2020/02/05		55	%	50 - 130
			2-Methylnaphthalene	2020/02/05		48 (1)	%	50 - 130
			Naphthalene	2020/02/05		52	%	50 - 130
			Phenanthrene	2020/02/05		93	%	50 - 130
			Pyrene	2020/02/05		102	%	50 - 130
6572896	JET	Spiked Blank	D10-Anthracene	2020/02/05		109	%	50 - 130
			D14-Terphenyl (FS)	2020/02/05		111	%	50 - 130
			D8-Acenaphthylene	2020/02/05		104	%	50 - 130
			Acenaphthene	2020/02/05		89	%	50 - 130
			Acenaphthylene	2020/02/05		86	%	50 - 130
			Anthracene	2020/02/05		100	%	50 - 130
			Benzo(a)anthracene	2020/02/05		106	%	50 - 130
			Benzo(a)pyrene	2020/02/05		104	%	50 - 130
			Benzo(b/j)fluoranthene	2020/02/05		99	%	50 - 130
			Benzo(g,h,i)perylene	2020/02/05		100	%	50 - 130
			Benzo(k)fluoranthene	2020/02/05		100	%	50 - 130
			Chrysene	2020/02/05		100	%	50 - 130
			Dibenzo(a,h)anthracene	2020/02/05		93	%	50 - 130
			Fluoranthene	2020/02/05		111	%	50 - 130
			Fluorene	2020/02/05		89	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2020/02/05		102	%	50 - 130
			1-Methylnaphthalene	2020/02/05		72	%	50 - 130
			2-Methylnaphthalene	2020/02/05		63	%	50 - 130
			Naphthalene	2020/02/05		61	%	50 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Phenanthrene	2020/02/05		103	%	50 - 130
			Pyrene	2020/02/05		108	%	50 - 130
6572896	JET	Method Blank	D10-Anthracene	2020/02/05		106	%	50 - 130
			D14-Terphenyl (FS)	2020/02/05		109	%	50 - 130
			D8-Acenaphthylene	2020/02/05		103	%	50 - 130
			Acenaphthene	2020/02/05	<0.050		ug/L	
			Acenaphthylene	2020/02/05	<0.050		ug/L	
			Anthracene	2020/02/05	<0.050		ug/L	
			Benzo(a)anthracene	2020/02/05	<0.050		ug/L	
			Benzo(a)pyrene	2020/02/05	<0.010		ug/L	
			Benzo(b/j)fluoranthene	2020/02/05	<0.050		ug/L	
			Benzo(g,h,i)perylene	2020/02/05	<0.050		ug/L	
			Benzo(k)fluoranthene	2020/02/05	<0.050		ug/L	
			Chrysene	2020/02/05	<0.050		ug/L	
			Dibenzo(a,h)anthracene	2020/02/05	<0.050		ug/L	
			Fluoranthene	2020/02/05	<0.050		ug/L	
			Fluorene	2020/02/05	<0.050		ug/L	
			Indeno(1,2,3-cd)pyrene	2020/02/05	<0.050		ug/L	
			1-Methylnaphthalene	2020/02/05	<0.050		ug/L	
			2-Methylnaphthalene	2020/02/05	<0.050		ug/L	
			Naphthalene	2020/02/05	<0.050		ug/L	
			Phenanthrene	2020/02/05	<0.030		ug/L	
			Pyrene	2020/02/05	<0.050		ug/L	
6572896	JET	RPD	Acenaphthene	2020/02/05	NC		%	30
			Acenaphthylene	2020/02/05	NC		%	30
			Anthracene	2020/02/05	NC		%	30
			Benzo(a)anthracene	2020/02/05	NC		%	30
			Benzo(a)pyrene	2020/02/05	NC		%	30
			Benzo(b/j)fluoranthene	2020/02/05	NC		%	30
			Benzo(g,h,i)perylene	2020/02/05	NC		%	30
			Benzo(k)fluoranthene	2020/02/05	NC		%	30
			Chrysene	2020/02/05	NC		%	30
			Dibenzo(a,h)anthracene	2020/02/05	NC		%	30
			Fluoranthene	2020/02/05	NC		%	30
			Fluorene	2020/02/05	NC		%	30
			Indeno(1,2,3-cd)pyrene	2020/02/05	NC		%	30
			1-Methylnaphthalene	2020/02/05	13		%	30
			2-Methylnaphthalene	2020/02/05	7.2		%	30
			Naphthalene	2020/02/05	3.1		%	30
			Phenanthrene	2020/02/05	NC		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Pyrene	2020/02/05	NC		%	30

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

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

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

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

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

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

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

(1) The recovery was below the lower control limit. This may represent a low bias in some results for this specific analyte.

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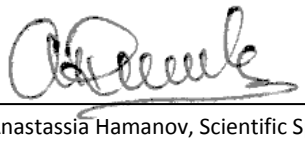
VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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31-Jan-20 14:54
Ronklin Gracian
C028186
GID ENV-1318

Presence of Visible Particulate/Sediment

Maxxam Analytics
CAM FCD-01013/5

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

		Bottle Types																															
		Inorganics						Organics											Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	MW 20-1	TS																															
2	MW 20-2	TS																															
3	MW 20-3	TS																															
4	MW 20-4	TS																															
5	BC-01	TS																															
6	MW 20-5	TS																															
7	BH-2	TS																															
8	MW-3	TS																															
9	—																																
10																																	

Comments: EXCEPT DISM, CRVI, HGHC

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) RG GYWLHGN. IDH7

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Page 1 of 1

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:			756407
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345	COC #:	Project Manager:
	Stoney Creek ON L8J 0B4			Profit Centre:	1221	C#756407-01-01	Ronklin Gracian
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	JUAE		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☑ Reg 558 ☐ Storm Sewer Bylaw	
☑ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality ____	
☐ Table ___	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? N

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O. Reg 153: PHCs, BTEX/F1-F4	O. Reg 153: PAHs	O. Reg 153: Metals & Inorganics Pkg							# of Bottles	Comments
1		MW20-1	20/01/30	1000	GW	NO	X									4	
2		MW20-2		1040		NO	X									4	
3		MW20-3		1120		YES	X	X	X							11	
4		MW20-4		1200		YES	X	X	X							11	
5		QC-01		—		YES	X	X	X							11	
6		MW20-5		1240		YES	X	X	X							11	
7		BH-2		1320		NO	X									4	
8		MW-3		1400		NO	X									4	
9		QC-02		—		NO	X									4	
10		TRIP BLANK		—		NO	X									3	

31-Jan-20 14:54
Ronklin Gracian
C028186
GID ENV-1318

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
KWright	20/01/31	9am		20/01/31	14:54	0		0.1 / 1.1	Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

#171632

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

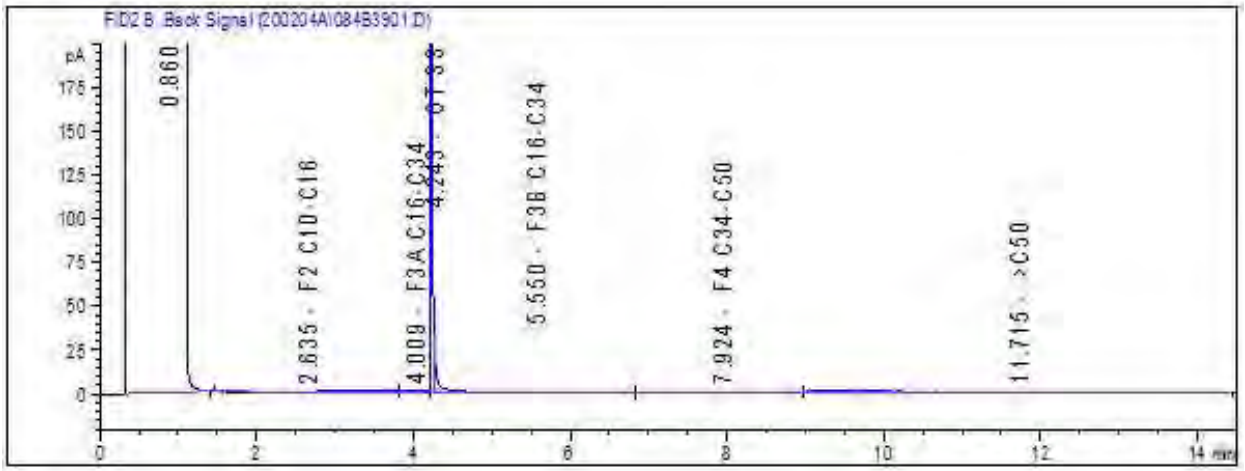
White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

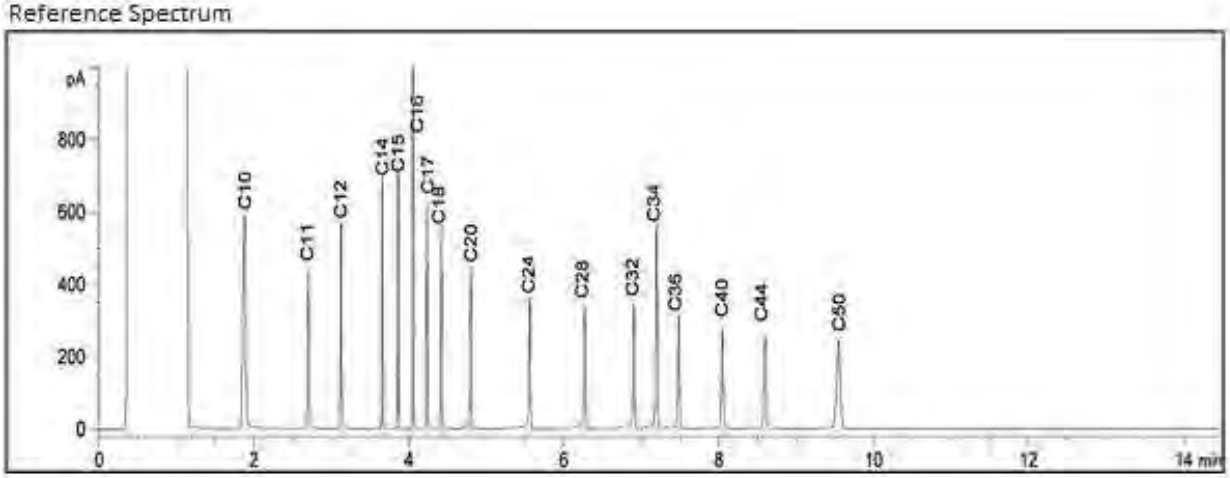
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI728

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW20-1

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

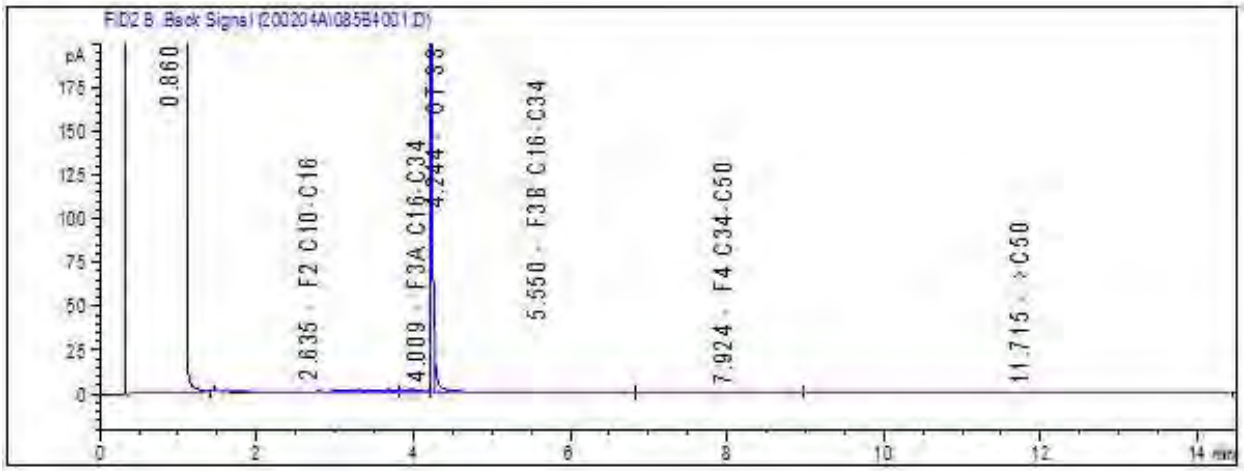
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

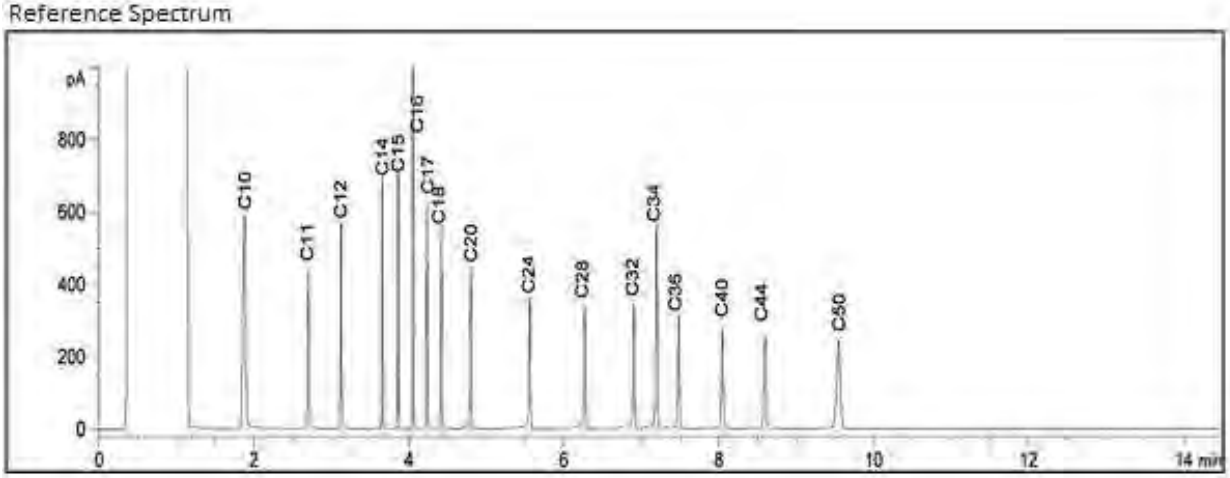
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI729

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW20-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

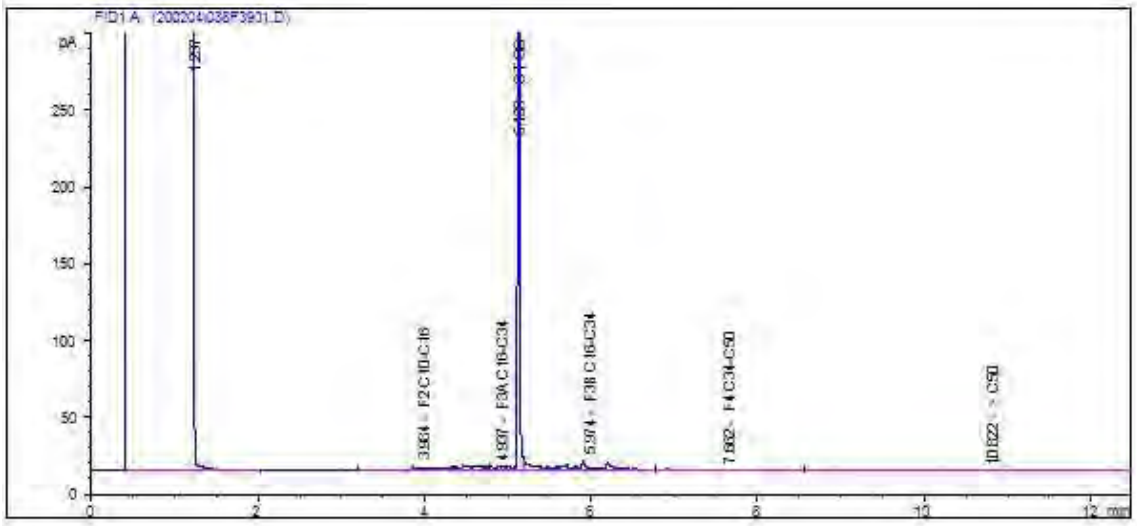
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

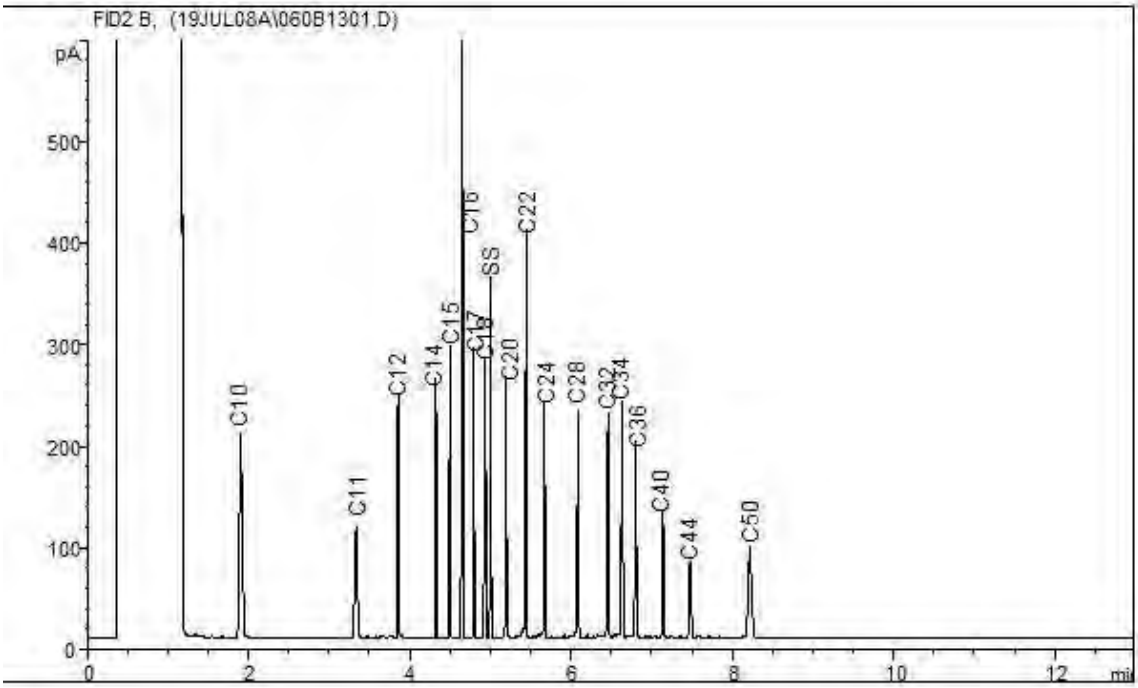
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI730

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW20-3

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

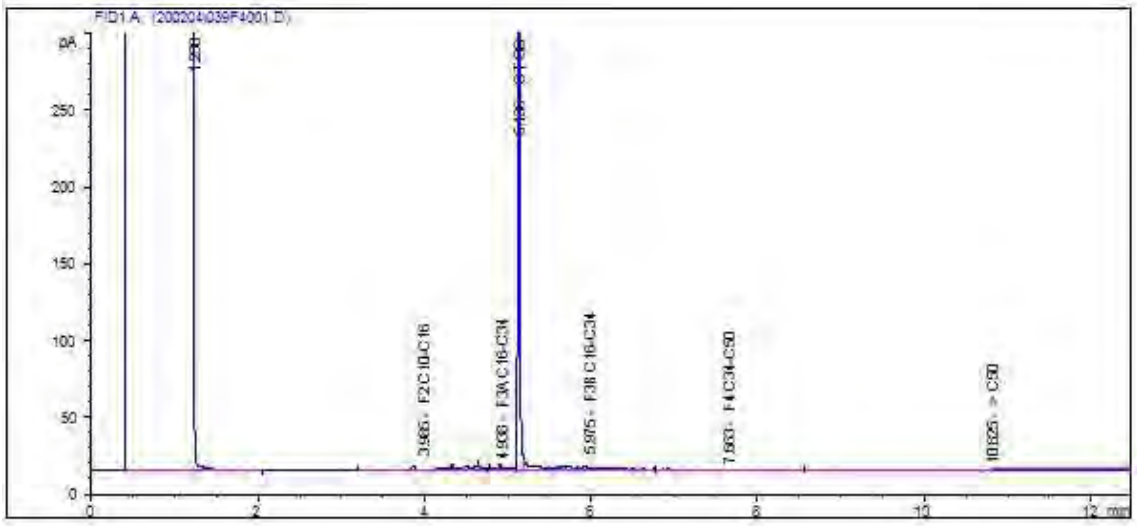
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

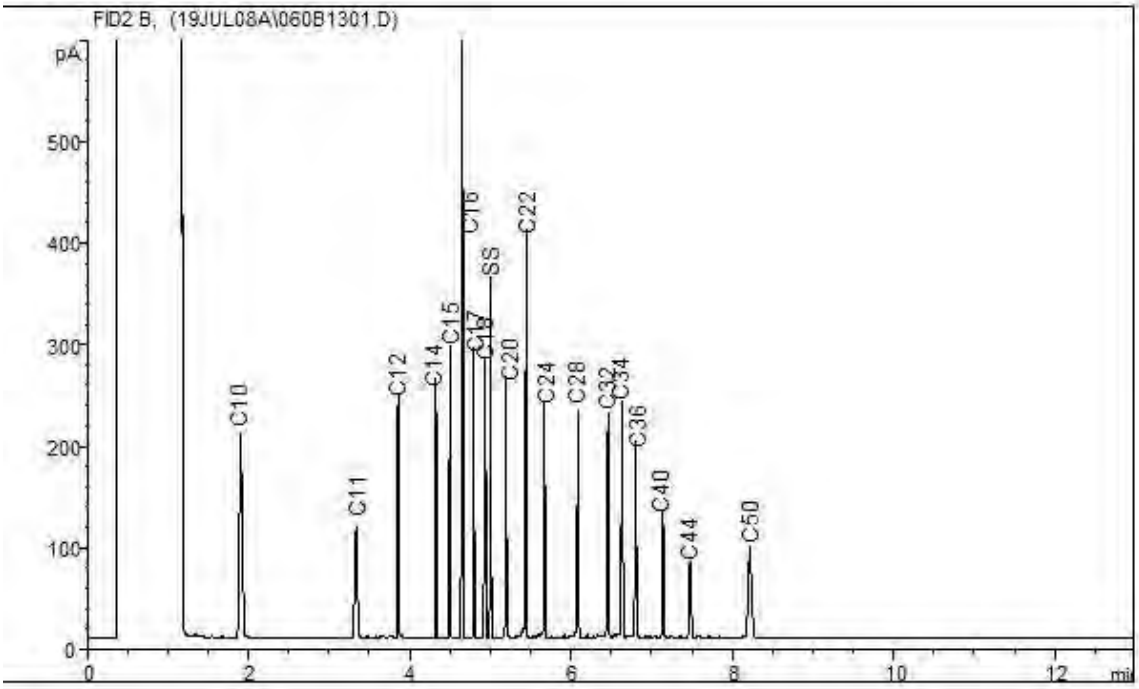
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI731

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW20-4

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

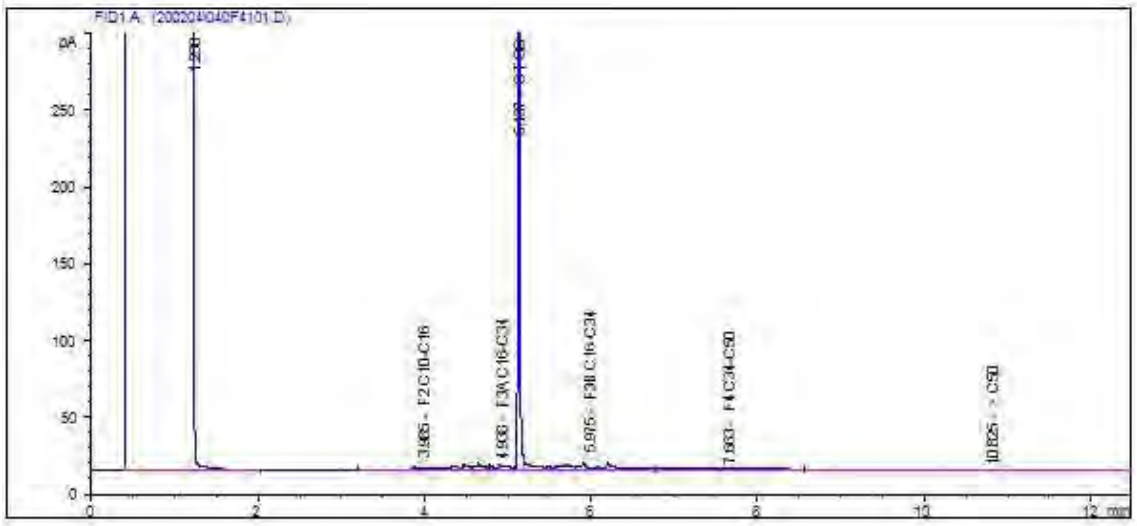
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

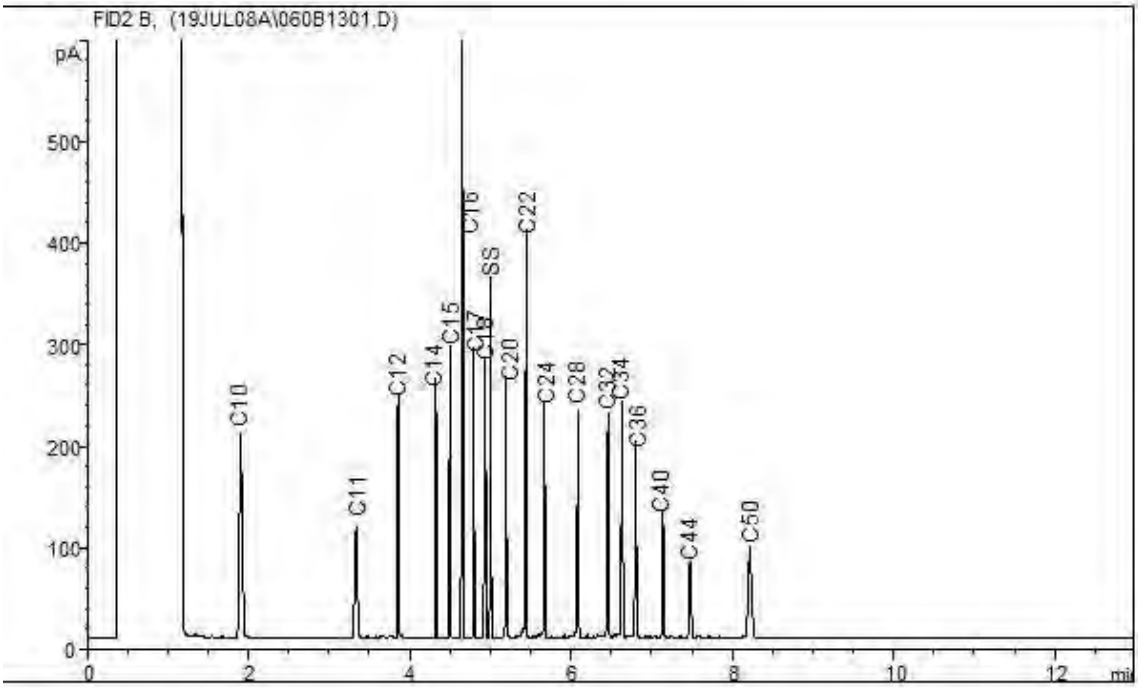
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI732

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: QC-01

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

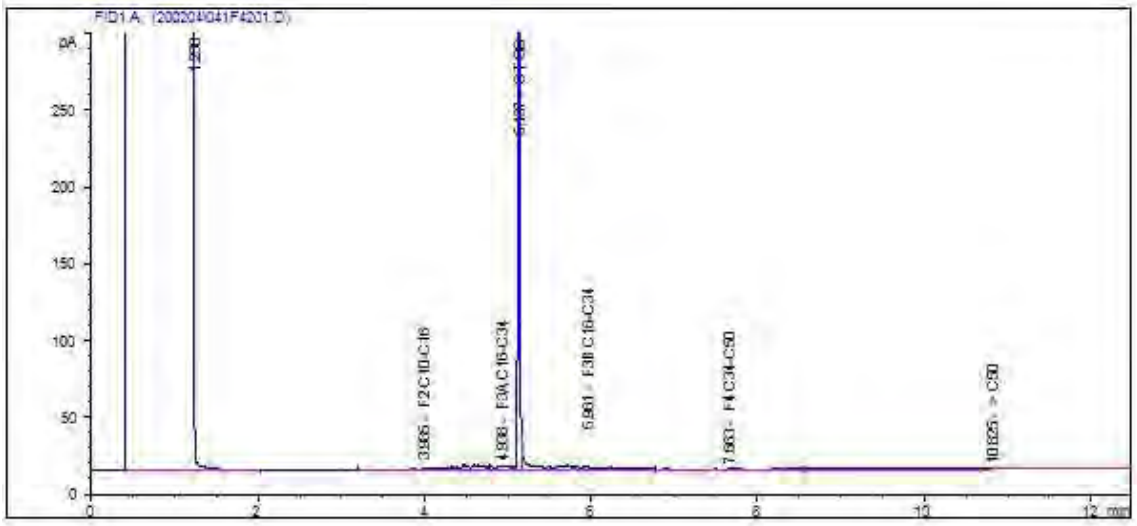
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

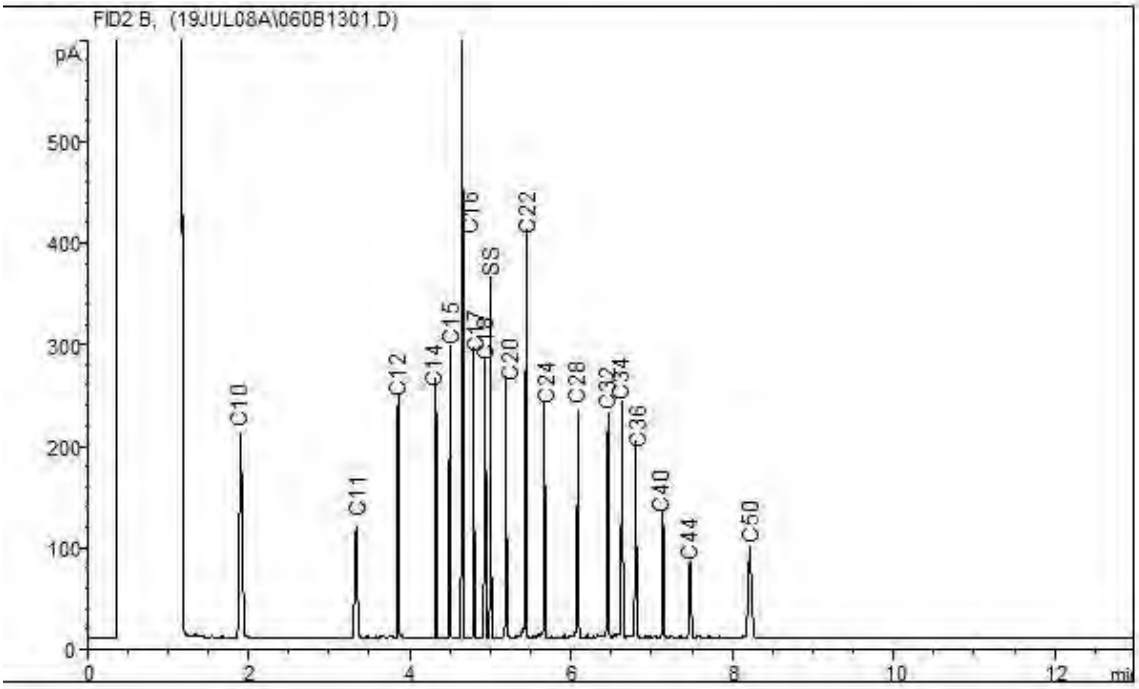
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI733

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW20-5

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

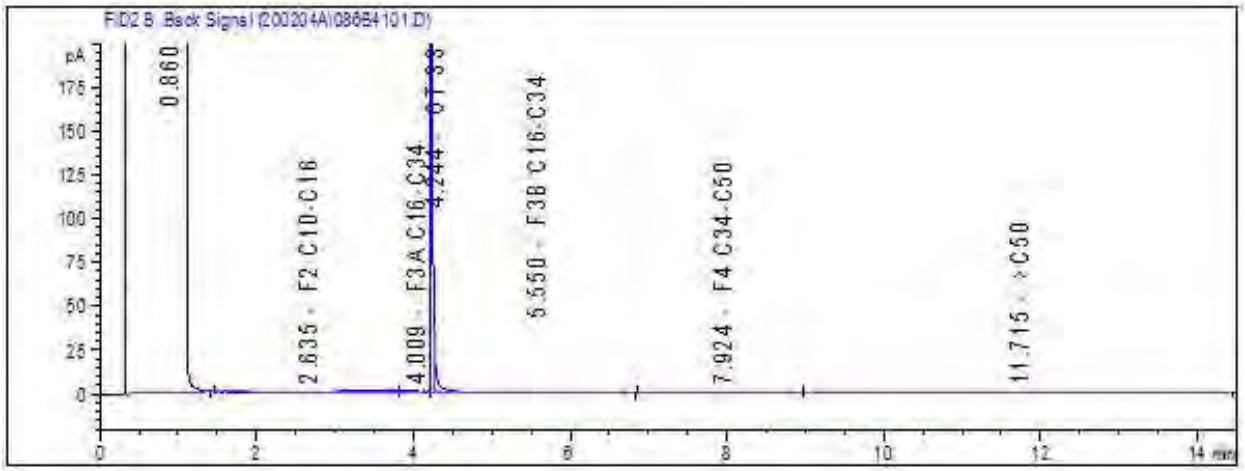
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

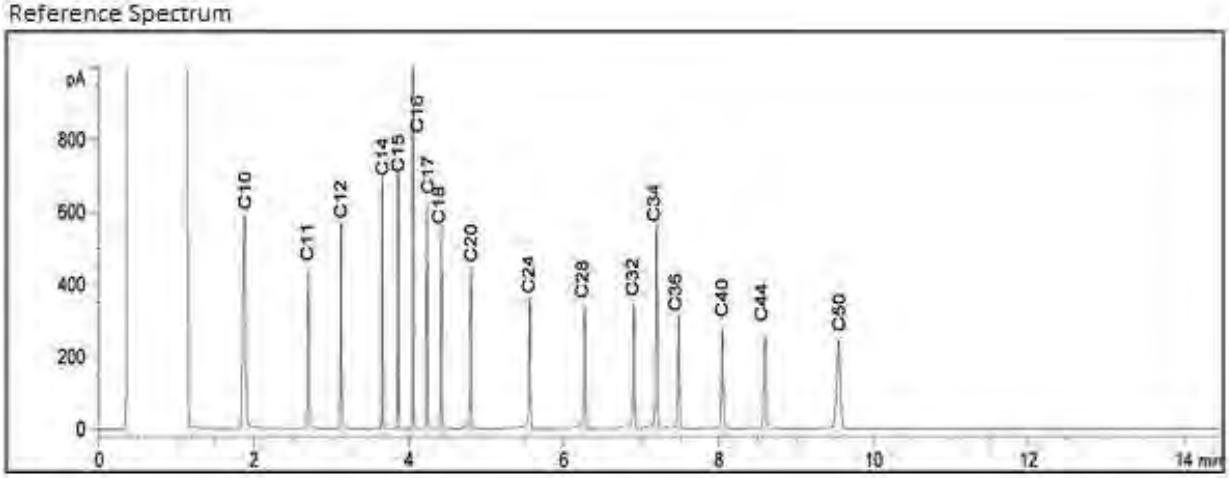
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI734

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: BH-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

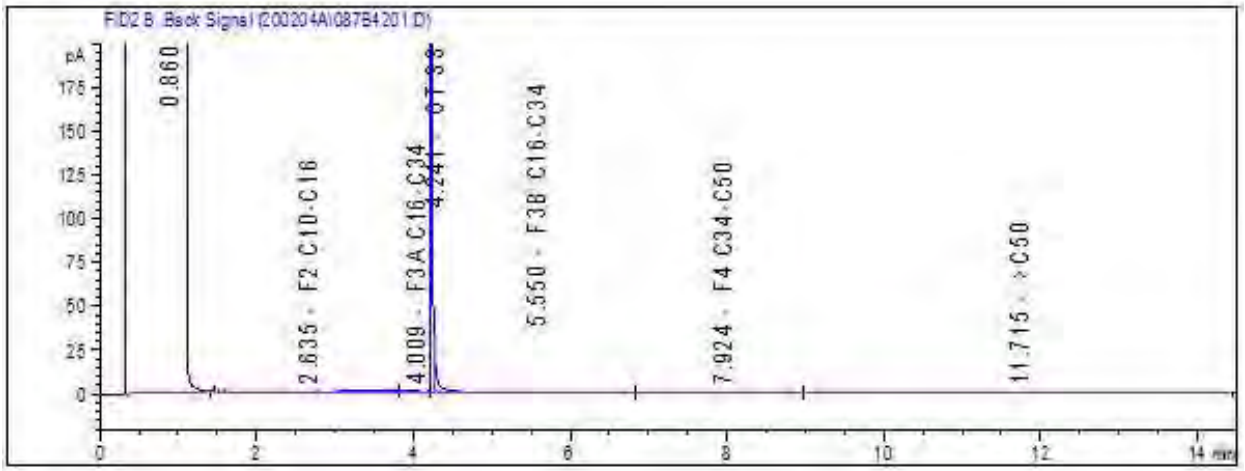
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

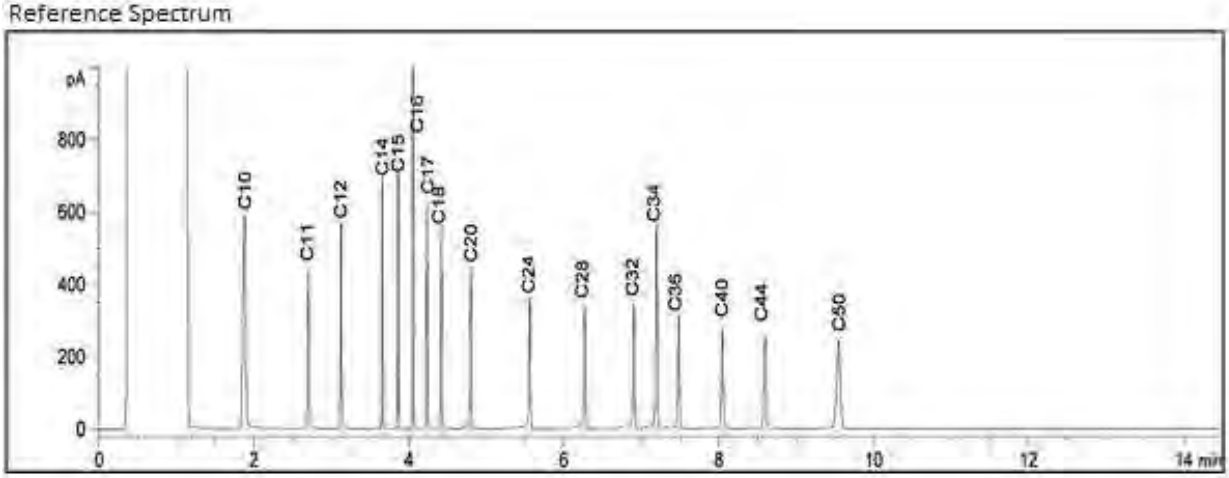
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI735

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: MW-3

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

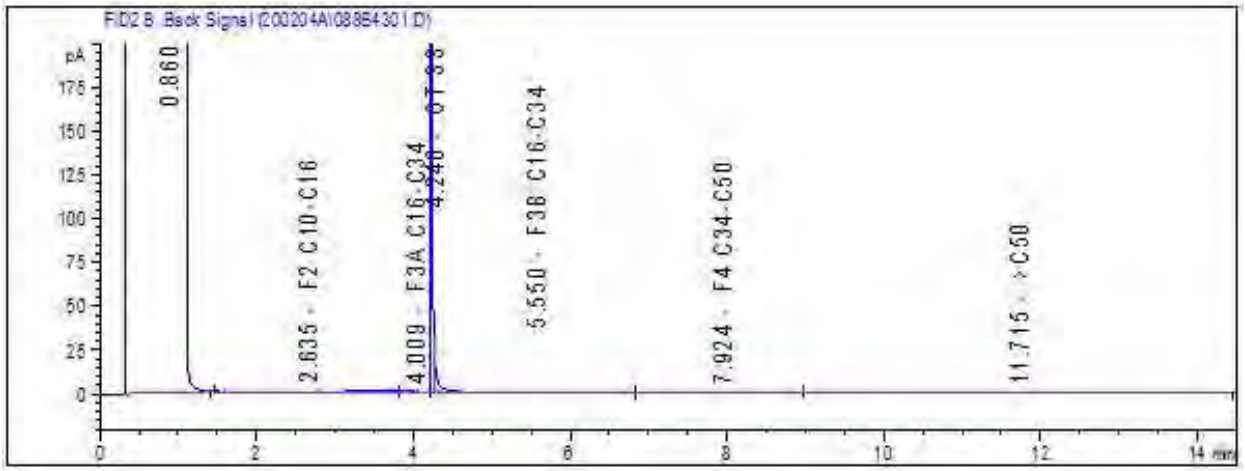
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

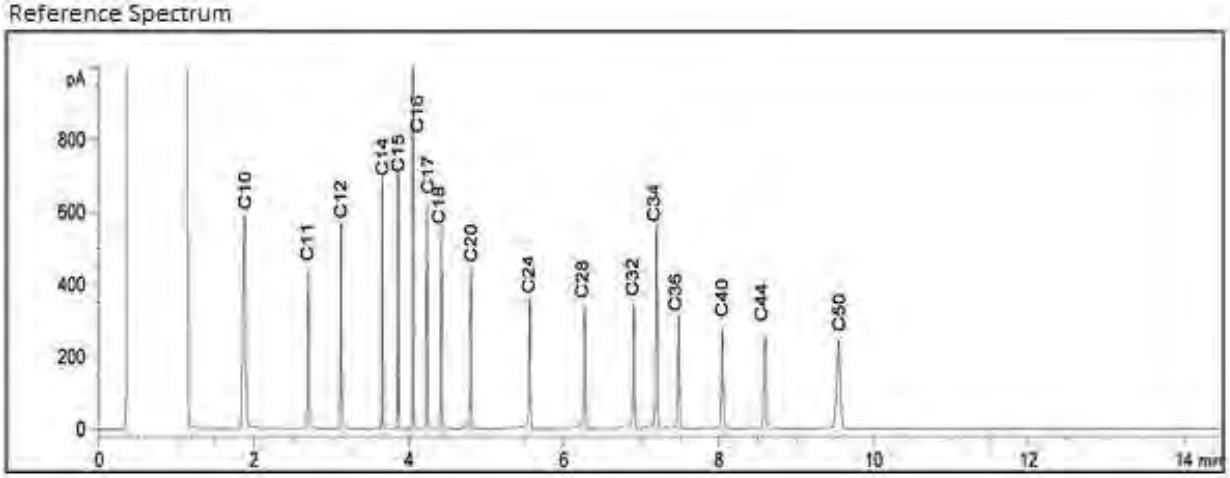
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI736

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: QC-02

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

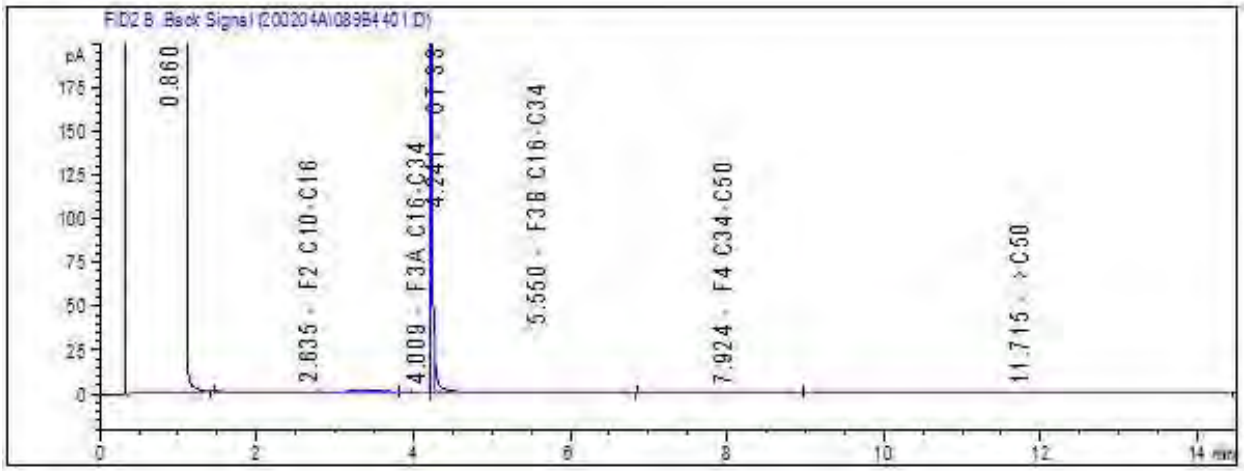
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

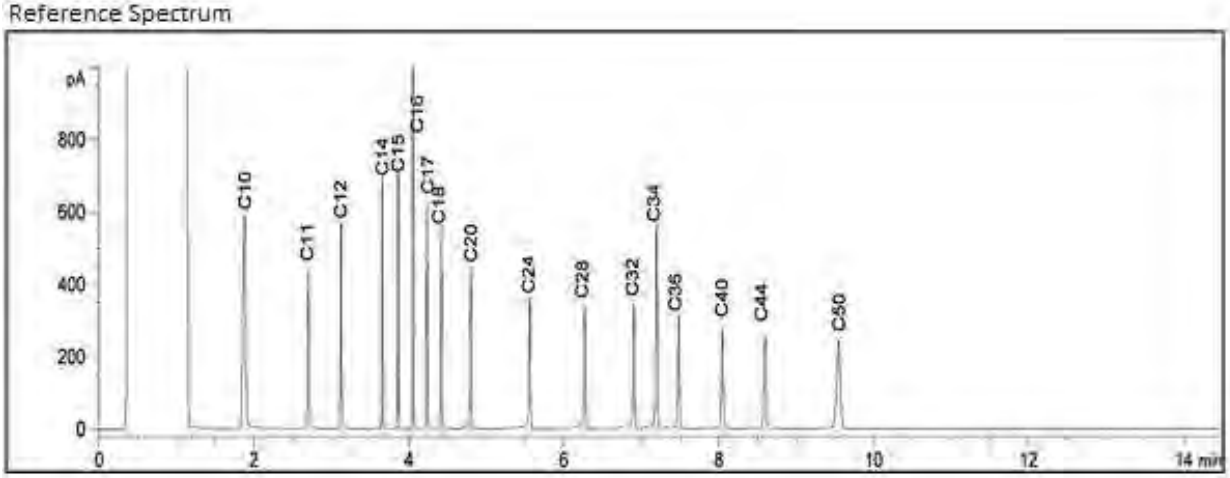
BV Labs Job #: C028186
Report Date: 2020/02/05
BV Labs Sample: LXI737

Stantec Consulting Ltd
Client Project #: 122120345
Client ID: TRIP BLANK

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 122120345
Your C.O.C. #: 764238-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/04/23
Report #: R6152707
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C095768
Received: 2020/04/16, 17:22

Sample Matrix: Water
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Chromium (VI) in Water	7	N/A	2020/04/21	CAM SOP-00436	EPA 7199 m
Mercury	7	2020/04/20	2020/04/20	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	7	N/A	2020/04/22	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Your C.O.C. #: 764238-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/04/23
Report #: R6152707
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C095768
Received: 2020/04/16, 17:22

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C095768
Report Date: 2020/04/23

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

O.REG 153 METALS PACKAGE (WATER)

BV Labs ID		MLR751	MLR752	MLR753	MLR754			MLR754		
Sampling Date		2020/04/16 16:00	2020/04/16 14:40	2020/04/16 14:00	2020/04/16 15:20			2020/04/16 15:20		
COC Number		764238-01-01	764238-01-01	764238-01-01	764238-01-01			764238-01-01		
	UNITS	MW20-5	MW20-6	MW20-7	MW20-8	RDL	QC Batch	MW20-8 Lab-Dup	RDL	QC Batch
Metals										
Chromium (VI)	ug/L	0.53	0.60	<0.50	0.78	0.50	6687025	0.72	0.50	6687025
Mercury (Hg)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	6688098			
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	6688360			
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	6688360			
Dissolved Barium (Ba)	ug/L	91	50	50	32	2.0	6688360			
Dissolved Beryllium (Be)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	6688360			
Dissolved Boron (B)	ug/L	44	59	39	35	10	6688360			
Dissolved Cadmium (Cd)	ug/L	<0.10	<0.10	0.12	<0.10	0.10	6688360			
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	6688360			
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	1.0	<0.50	0.50	6688360			
Dissolved Copper (Cu)	ug/L	2.9	1.1	5.4	1.4	1.0	6688360			
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	6688360			
Dissolved Molybdenum (Mo)	ug/L	0.75	1.6	<0.50	<0.50	0.50	6688360			
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	1.3	<1.0	1.0	6688360			
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	6688360			
Dissolved Silver (Ag)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	6688360			
Dissolved Sodium (Na)	ug/L	590000	270000	390000	320000	100	6688360			
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6688360			
Dissolved Uranium (U)	ug/L	0.69	0.57	0.77	0.29	0.10	6688360			
Dissolved Vanadium (V)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	6688360			
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	6688360			

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

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C095768
Report Date: 2020/04/23

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

O.REG 153 METALS PACKAGE (WATER)

BV Labs ID		MLR755			MLR755			MLR756	MLR757		
Sampling Date		2020/04/16			2020/04/16			2020/04/16	2020/04/16		
COC Number		764238-01-01			764238-01-01			764238-01-01	764238-01-01		
	UNITS	QC-01	RDL	QC Batch	QC-01 Lab-Dup	RDL	QC Batch	QC-02	TRIP BLANK	RDL	QC Batch
Metals											
Chromium (VI)	ug/L	0.52	0.50	6687025				<0.50	<0.50	0.50	6687025
Mercury (Hg)	ug/L	<0.10	0.10	6688098	<0.10	0.10	6688098	<0.10	<0.10	0.10	6688098
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Arsenic (As)	ug/L	<1.0	1.0	6688360				<1.0	<1.0	1.0	6688360
Dissolved Barium (Ba)	ug/L	94	2.0	6688360				<2.0	<2.0	2.0	6688360
Dissolved Beryllium (Be)	ug/L	<0.50	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Boron (B)	ug/L	44	10	6688360				<10	<10	10	6688360
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	6688360				<0.10	<0.10	0.10	6688360
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	6688360				<5.0	<5.0	5.0	6688360
Dissolved Cobalt (Co)	ug/L	<0.50	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Copper (Cu)	ug/L	5.4	1.0	6688360				<1.0	<1.0	1.0	6688360
Dissolved Lead (Pb)	ug/L	<0.50	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Molybdenum (Mo)	ug/L	0.78	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Nickel (Ni)	ug/L	1.2	1.0	6688360				<1.0	<1.0	1.0	6688360
Dissolved Selenium (Se)	ug/L	<2.0	2.0	6688360				<2.0	<2.0	2.0	6688360
Dissolved Silver (Ag)	ug/L	<0.10	0.10	6688360				<0.10	<0.10	0.10	6688360
Dissolved Sodium (Na)	ug/L	590000	100	6688360				120	<100	100	6688360
Dissolved Thallium (Tl)	ug/L	<0.050	0.050	6688360				<0.050	<0.050	0.050	6688360
Dissolved Uranium (U)	ug/L	0.68	0.10	6688360				<0.10	<0.10	0.10	6688360
Dissolved Vanadium (V)	ug/L	<0.50	0.50	6688360				<0.50	<0.50	0.50	6688360
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	6688360				<5.0	<5.0	5.0	6688360

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

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BV Labs Job #: C095768
Report Date: 2020/04/23

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: MLR751
Sample ID: MW20-5
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

BV Labs ID: MLR752
Sample ID: MW20-6
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

BV Labs ID: MLR753
Sample ID: MW20-7
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

BV Labs ID: MLR754
Sample ID: MW20-8
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

BV Labs ID: MLR754 Dup
Sample ID: MW20-8
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le

BV Labs ID: MLR755
Sample ID: QC-01
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

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BV Labs Job #: C095768
Report Date: 2020/04/23

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: MLR755 Dup
Sample ID: QC-01
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford

BV Labs ID: MLR756
Sample ID: QC-02
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

BV Labs ID: MLR757
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2020/04/16
Shipped:
Received: 2020/04/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chromium (VI) in Water	IC	6687025	N/A	2020/04/21	Lang Le
Mercury	CV/AA	6688098	2020/04/20	2020/04/20	Kevin Comerford
Dissolved Metals by ICPMS	ICP/MS	6688360	N/A	2020/04/22	John Bowman

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GENERAL COMMENTS

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

Package 1	6.3°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6687025	LLE	Matrix Spike [MLR754-02]	Chromium (VI)	2020/04/21		104	%	80 - 120
6687025	LLE	Spiked Blank	Chromium (VI)	2020/04/21		101	%	80 - 120
6687025	LLE	Method Blank	Chromium (VI)	2020/04/21	<0.50		ug/L	
6687025	LLE	RPD [MLR754-02]	Chromium (VI)	2020/04/21	8.2		%	20
6688098	KCO	Matrix Spike [MLR755-03]	Mercury (Hg)	2020/04/20		93	%	75 - 125
6688098	KCO	Spiked Blank	Mercury (Hg)	2020/04/20		99	%	80 - 120
6688098	KCO	Method Blank	Mercury (Hg)	2020/04/20	<0.10		ug/L	
6688098	KCO	RPD [MLR755-03]	Mercury (Hg)	2020/04/20	NC		%	20
6688360	JBW	Matrix Spike	Dissolved Antimony (Sb)	2020/04/22		113	%	80 - 120
			Dissolved Arsenic (As)	2020/04/22		109	%	80 - 120
			Dissolved Barium (Ba)	2020/04/22		109	%	80 - 120
			Dissolved Beryllium (Be)	2020/04/22		90	%	80 - 120
			Dissolved Boron (B)	2020/04/22		90	%	80 - 120
			Dissolved Cadmium (Cd)	2020/04/22		104	%	80 - 120
			Dissolved Chromium (Cr)	2020/04/22		108	%	80 - 120
			Dissolved Cobalt (Co)	2020/04/22		108	%	80 - 120
			Dissolved Copper (Cu)	2020/04/22		111	%	80 - 120
			Dissolved Lead (Pb)	2020/04/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/04/22		117	%	80 - 120
			Dissolved Nickel (Ni)	2020/04/22		103	%	80 - 120
			Dissolved Selenium (Se)	2020/04/22		104	%	80 - 120
			Dissolved Silver (Ag)	2020/04/22		74 (1)	%	80 - 120
			Dissolved Sodium (Na)	2020/04/22		NC	%	80 - 120
			Dissolved Thallium (Tl)	2020/04/22		98	%	80 - 120
			Dissolved Uranium (U)	2020/04/22		109	%	80 - 120
			Dissolved Vanadium (V)	2020/04/22		114	%	80 - 120
			Dissolved Zinc (Zn)	2020/04/22		96	%	80 - 120
6688360	JBW	Spiked Blank	Dissolved Antimony (Sb)	2020/04/22		101	%	80 - 120
			Dissolved Arsenic (As)	2020/04/22		99	%	80 - 120
			Dissolved Barium (Ba)	2020/04/22		98	%	80 - 120
			Dissolved Beryllium (Be)	2020/04/22		93	%	80 - 120
			Dissolved Boron (B)	2020/04/22		94	%	80 - 120
			Dissolved Cadmium (Cd)	2020/04/22		100	%	80 - 120
			Dissolved Chromium (Cr)	2020/04/22		94	%	80 - 120
			Dissolved Cobalt (Co)	2020/04/22		100	%	80 - 120
			Dissolved Copper (Cu)	2020/04/22		97	%	80 - 120
			Dissolved Lead (Pb)	2020/04/22		98	%	80 - 120
			Dissolved Molybdenum (Mo)	2020/04/22		97	%	80 - 120
			Dissolved Nickel (Ni)	2020/04/22		97	%	80 - 120
			Dissolved Selenium (Se)	2020/04/22		103	%	80 - 120
			Dissolved Silver (Ag)	2020/04/22		98	%	80 - 120
			Dissolved Sodium (Na)	2020/04/22		99	%	80 - 120
			Dissolved Thallium (Tl)	2020/04/22		100	%	80 - 120
			Dissolved Uranium (U)	2020/04/22		104	%	80 - 120
			Dissolved Vanadium (V)	2020/04/22		96	%	80 - 120
			Dissolved Zinc (Zn)	2020/04/22		98	%	80 - 120
6688360	JBW	Method Blank	Dissolved Antimony (Sb)	2020/04/22	<0.50		ug/L	
			Dissolved Arsenic (As)	2020/04/22	<1.0		ug/L	
			Dissolved Barium (Ba)	2020/04/22	<2.0		ug/L	
			Dissolved Beryllium (Be)	2020/04/22	<0.50		ug/L	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dissolved Boron (B)	2020/04/22	<10		ug/L	
			Dissolved Cadmium (Cd)	2020/04/22	<0.10		ug/L	
			Dissolved Chromium (Cr)	2020/04/22	<5.0		ug/L	
			Dissolved Cobalt (Co)	2020/04/22	<0.50		ug/L	
			Dissolved Copper (Cu)	2020/04/22	<1.0		ug/L	
			Dissolved Lead (Pb)	2020/04/22	<0.50		ug/L	
			Dissolved Molybdenum (Mo)	2020/04/22	<0.50		ug/L	
			Dissolved Nickel (Ni)	2020/04/22	<1.0		ug/L	
			Dissolved Selenium (Se)	2020/04/22	<2.0		ug/L	
			Dissolved Silver (Ag)	2020/04/22	<0.10		ug/L	
			Dissolved Sodium (Na)	2020/04/22	<100		ug/L	
			Dissolved Thallium (Tl)	2020/04/22	<0.050		ug/L	
			Dissolved Uranium (U)	2020/04/22	<0.10		ug/L	
			Dissolved Vanadium (V)	2020/04/22	<0.50		ug/L	
			Dissolved Zinc (Zn)	2020/04/22	<5.0		ug/L	
6688360	JBW	RPD	Dissolved Antimony (Sb)	2020/04/22	NC		%	20
			Dissolved Arsenic (As)	2020/04/22	5.1		%	20
			Dissolved Barium (Ba)	2020/04/22	3.1		%	20
			Dissolved Beryllium (Be)	2020/04/22	NC		%	20
			Dissolved Boron (B)	2020/04/22	NC		%	20
			Dissolved Cadmium (Cd)	2020/04/22	NC		%	20
			Dissolved Chromium (Cr)	2020/04/22	0.63		%	20
			Dissolved Cobalt (Co)	2020/04/22	NC		%	20
			Dissolved Copper (Cu)	2020/04/22	0.82		%	20
			Dissolved Lead (Pb)	2020/04/22	NC		%	20
			Dissolved Molybdenum (Mo)	2020/04/22	0.56		%	20
			Dissolved Nickel (Ni)	2020/04/22	14		%	20
			Dissolved Selenium (Se)	2020/04/22	2.8		%	20
			Dissolved Silver (Ag)	2020/04/22	NC		%	20
			Dissolved Sodium (Na)	2020/04/22	0.16		%	20
			Dissolved Thallium (Tl)	2020/04/22	9.3		%	20
			Dissolved Uranium (U)	2020/04/22	NC		%	20
			Dissolved Vanadium (V)	2020/04/22	2.9		%	20
			Dissolved Zinc (Zn)	2020/04/22	NC		%	20

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

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

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

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

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

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

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

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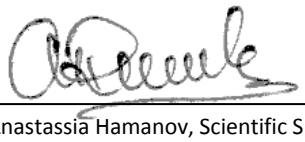
BV Labs Job #: C095768
Report Date: 2020/04/23

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STAN

16-Apr-20 17:22
Ronklin Gracian
C095768
YHA ENV-695

Page 1 of 1

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:	300
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345
	Stoney Creek ON L8J 0B4			Profit Centre:	1221
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:	
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	JHALE

nly:
Bottle Order #: 764238
COC #: C#764238-01-01
Project Manager: Ronklin Gracian

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [ ] Table 1 [ ] Res/Park [ ] Medium/Fine
- [ ] Table 2 [ ] Ind/Comm [ ] Coarse
- [x] Table 3 [ ] Agri/Other [ ] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? N

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 Metals Package (incl HG, CrVI)	# of Bottles	Comments
1		MW20-5	20/04/16	1600	GW	YES	X	3	
2		MW20-6		1440			X	3	
3		MW20-7		1400			X	3	
4		MW20-8		1520			X	3	
5		QC-01		—			X	3	
6		QC-02		—			X	3	
7		TRIP BLANK		—			X	3	
8									
9									
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
JESSICA HALE	20/04/16	1720		20/04/16	17:22	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	8/6/5	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

Your Project #: 122120345
Your C.O.C. #: 770344-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/05/04
Report #: R6163884
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0A6662
Received: 2020/04/30, 15:20

Sample Matrix: Water
Samples Received: 6

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Mercury in Water by CVAA	6	2020/05/04	2020/05/04	CAM SOP-00453	EPA 7470A m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Your C.O.C. #: 770344-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/05/04
Report #: R6163884
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0A6662
Received: 2020/04/30, 15:20

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C0A6662
Report Date: 2020/05/04

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JES

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

BV Labs ID		MNU356	MNU357	MNU358	MNU359	MNU360	MNU361		
Sampling Date		2020/04/30 13:00	2020/04/30 13:40	2020/04/30 14:20	2020/04/30 15:00	2020/04/30	2020/04/30		
COC Number		770344-01-01	770344-01-01	770344-01-01	770344-01-01	770344-01-01	770344-01-01		
	UNITS	**MW20-5**	**MW20-7**	**MW20-6**	**MW20-8**	**QC-01**	**QC-02**	**RDL**	**QC Batch**
Metals									
Mercury (Hg)	mg/L	<0.00010	<0.00010	0.00010	<0.00010	<0.00010	<0.00010	0.00010	6708704

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0A6662
Report Date: 2020/05/04

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JES

TEST SUMMARY

BV Labs ID: MNU356
Sample ID: MW20-5
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

BV Labs ID: MNU357
Sample ID: MW20-7
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

BV Labs ID: MNU358
Sample ID: MW20-6
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

BV Labs ID: MNU359
Sample ID: MW20-8
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

BV Labs ID: MNU360
Sample ID: QC-01
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

BV Labs ID: MNU361
Sample ID: QC-02
Matrix: Water

Collected: 2020/04/30
Shipped:
Received: 2020/04/30

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Mercury in Water by CVAA	CV/AA	6708704	2020/05/04	2020/05/04	Kevin Comerford

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GENERAL COMMENTS

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

Package 1	8.0°C

Results relate only to the items tested.

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BV Labs Job #: C0A6662
Report Date: 2020/05/04

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JES

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6708704	KCO	Matrix Spike	Mercury (Hg)	2020/05/04		97	%	75 - 125
6708704	KCO	Spiked Blank	Mercury (Hg)	2020/05/04		97	%	80 - 120
6708704	KCO	Method Blank	Mercury (Hg)	2020/05/04	<0.00010		mg/L	
6708704	KCO	RPD	Mercury (Hg)	2020/05/04	NC		%	20

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

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

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

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

NC (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).

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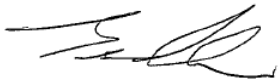
BV Labs Job #: C0A6662
Report Date: 2020/05/04

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JES

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Brad Newman, Scientific Service Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free 800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	C01624	BV Labs Job #:	Bottle Order #: 770344
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:			
Address:	835 Paramount Drive, Suite 200 Stoney Creek ON L8J 0B4	Address:		Project #:	122120345		
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Profit Centre:		COC #:	Project Manager:
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com, Randy.Sinukoff@stante	Site #:		C#770344-01-01	Ronklin Gracian
				Sampled By:	JHALE		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☒ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality ____	
☐ Table ___	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? N

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Mercury in Water by CVAA	# of Bottles	Comments
1		MW20-5	20/04/30	1300	GW	YES	X	1	
2		MW20-7		1340			X	1	
3		MW20-6		1420			X	1	
4		MW20-8		1500			X	1	
5		QC-01		—			X	1	
6		QC-02		—			X	1	
7									
8									
9									
10									

30-Apr-20 15:20
Ronklin Gracian
C0A6662
KVG ENV-1124

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
JESSICA HALE	20/04/30	15:30		20/04/30	15:20	8

Laboratory Use Only			
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes ☐
	8 / 8 / 8	Intact	No ☐

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Your Project #: 122120345
Site Location: 358 REYNOLDS
Your C.O.C. #: 756404-01-01, 756404-03-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/14
Report #: R6075327
Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C022735
Received: 2020/01/27, 14:30

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	4	N/A	2020/01/31	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	4	2020/01/29	2020/01/30	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2020/02/08	2020/02/10	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2020/01/30		EPA 8260C m
Free (WAD) Cyanide	4	2020/01/29	2020/01/30	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	2020/02/10	2020/02/11	CAM SOP-00457	OMOE E3015 m
Conductivity	4	2020/01/30	2020/01/30	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	1	2020/02/10	2020/02/10	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	4	2020/01/29	2020/01/30	CAM SOP-00436	EPA 3060/7199 m
Hexavalent Chromium in Soil by IC (1)	1	2020/02/10	2020/02/11	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	3	N/A	2020/01/29	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2020/01/30	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	6	2020/01/29	2020/01/30	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	4	2020/01/29	2020/01/29	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	1	2020/02/08	2020/02/10	CAM SOP-00447	EPA 6020B m
Moisture	6	N/A	2020/01/29	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture	1	N/A	2020/02/07	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	4	2020/01/29	2020/01/30	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	5	2020/01/29	2020/01/29	CAM SOP-00413	EPA 9045 D m
pH CaCl2 EXTRACT	1	2020/02/10	2020/02/10	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	4	N/A	2020/01/31	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2020/02/11	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2020/01/29	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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

Your Project #: 122120345
Site Location: 358 REYNOLDS
Your C.O.C. #: 756404-01-01, 756404-03-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/14
Report #: R6075327
Version: 3 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C022735
Received: 2020/01/27, 14:30

accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		LWF078	LWF080	LWF082			LWF083		
Sampling Date		2020/01/22 11:40	2020/01/22 13:20	2020/01/23 10:20			2020/01/23 10:40		
COC Number		756404-01-01	756404-01-01	756404-03-01			756404-03-01		
	UNITS	MW20-3-2	MW20-4-3	MW20-5-2	RDL	QC Batch	MW20-5-4	RDL	QC Batch
Calculated Parameters									
Sodium Adsorption Ratio	N/A	38	6.7	0.87		6559543	6.5		6575721
Inorganics									
Conductivity	mS/cm	1.6	0.64	0.67	0.002	6563811	0.54	0.002	6581294
Moisture	%						19	1.0	6579623
Available (CaCl2) pH	pH	7.63	7.71	8.62		6562017	7.54		6581444
WAD Cyanide (Free)	ug/g	<0.01	<0.01	<0.01	0.01	6562388	<0.01	0.01	6581073
Chromium (VI)	ug/g	<0.2	<0.2	<0.2	0.2	6562085	<0.2	0.2	6580738
Metals									
Hot Water Ext. Boron (B)	ug/g	0.11	0.051	0.41	0.050	6562248	0.10	0.050	6580184
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	0.20	6562361	<0.20	0.20	6580132
Acid Extractable Arsenic (As)	ug/g	7.1	2.7	1.2	1.0	6562361	3.5	1.0	6580132
Acid Extractable Barium (Ba)	ug/g	50	25	22	0.50	6562361	32	0.50	6580132
Acid Extractable Beryllium (Be)	ug/g	0.54	0.30	0.25	0.20	6562361	0.36	0.20	6580132
Acid Extractable Boron (B)	ug/g	8.2	5.8	<5.0	5.0	6562361	6.6	5.0	6580132
Acid Extractable Cadmium (Cd)	ug/g	0.12	<0.10	<0.10	0.10	6562361	<0.10	0.10	6580132
Acid Extractable Chromium (Cr)	ug/g	17	9.0	9.8	1.0	6562361	11	1.0	6580132
Acid Extractable Cobalt (Co)	ug/g	12	5.4	2.7	0.10	6562361	6.3	0.10	6580132
Acid Extractable Copper (Cu)	ug/g	41	17	11	0.50	6562361	16	0.50	6580132
Acid Extractable Lead (Pb)	ug/g	11	5.0	4.6	1.0	6562361	5.8	1.0	6580132
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	0.50	6562361	<0.50	0.50	6580132
Acid Extractable Nickel (Ni)	ug/g	24	11	5.5	0.50	6562361	13	0.50	6580132
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.50	6562361	<0.50	0.50	6580132
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	0.66	0.20	6562361	<0.20	0.20	6580132
Acid Extractable Thallium (Tl)	ug/g	0.11	0.054	<0.050	0.050	6562361	0.052	0.050	6580132
Acid Extractable Uranium (U)	ug/g	0.54	0.36	0.53	0.050	6562361	0.33	0.050	6580132
Acid Extractable Vanadium (V)	ug/g	28	16	20	5.0	6562361	16	5.0	6580132
Acid Extractable Zinc (Zn)	ug/g	57	27	14	5.0	6562361	32	5.0	6580132
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	1.1	0.050	6562361	0.064	0.050	6580132

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		LWF083			LWF084			LWF084		
Sampling Date		2020/01/23 10:40			2020/01/22			2020/01/22		
COC Number		756404-03-01			756404-03-01			756404-03-01		
	UNITS	MW20-5-4 Lab-Dup	RDL	QC Batch	QC-01	RDL	QC Batch	QC-01 Lab-Dup	RDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A				6.3		6559543			
Inorganics										
Conductivity	mS/cm	0.56	0.002	6581294	0.63	0.002	6563811			
Available (CaCl2) pH	pH				7.70		6562017			
WAD Cyanide (Free)	ug/g				<0.01	0.01	6562388	<0.01	0.01	6562388
Chromium (VI)	ug/g				<0.2	0.2	6562085			
Metals										
Hot Water Ext. Boron (B)	ug/g				0.052	0.050	6562248			
Acid Extractable Antimony (Sb)	ug/g				<0.20	0.20	6562361			
Acid Extractable Arsenic (As)	ug/g				2.9	1.0	6562361			
Acid Extractable Barium (Ba)	ug/g				30	0.50	6562361			
Acid Extractable Beryllium (Be)	ug/g				0.35	0.20	6562361			
Acid Extractable Boron (B)	ug/g				6.1	5.0	6562361			
Acid Extractable Cadmium (Cd)	ug/g				<0.10	0.10	6562361			
Acid Extractable Chromium (Cr)	ug/g				10	1.0	6562361			
Acid Extractable Cobalt (Co)	ug/g				6.5	0.10	6562361			
Acid Extractable Copper (Cu)	ug/g				17	0.50	6562361			
Acid Extractable Lead (Pb)	ug/g				5.8	1.0	6562361			
Acid Extractable Molybdenum (Mo)	ug/g				<0.50	0.50	6562361			
Acid Extractable Nickel (Ni)	ug/g				13	0.50	6562361			
Acid Extractable Selenium (Se)	ug/g				<0.50	0.50	6562361			
Acid Extractable Silver (Ag)	ug/g				<0.20	0.20	6562361			
Acid Extractable Thallium (Tl)	ug/g				0.061	0.050	6562361			
Acid Extractable Uranium (U)	ug/g				0.40	0.050	6562361			
Acid Extractable Vanadium (V)	ug/g				18	5.0	6562361			
Acid Extractable Zinc (Zn)	ug/g				33	5.0	6562361			
Acid Extractable Mercury (Hg)	ug/g				<0.050	0.050	6562361			

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

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

O.REG 153 PAHS (SOIL)

BV Labs ID		LWF078	LWF080	LWF082			LWF082		
Sampling Date		2020/01/22 11:40	2020/01/22 13:20	2020/01/23 10:20			2020/01/23 10:20		
COC Number		756404-01-01	756404-01-01	756404-03-01			756404-03-01		
	UNITS	MW20-3-2	MW20-4-3	MW20-5-2	RDL	QC Batch	MW20-5-2 Lab-Dup	RDL	QC Batch
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	0.0071	6559564			
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	6563432	<0.0050	0.0050	6563432
Surrogate Recovery (%)									
D10-Anthracene	%	107	96	110		6563432	109		6563432
D14-Terphenyl (FS)	%	106	96	111		6563432	110		6563432
D8-Acenaphthylene	%	99	78	97		6563432	102		6563432

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

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Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

O.REG 153 PAHS (SOIL)

BV Labs ID		LWF084		
Sampling Date		2020/01/22		
COC Number		756404-03-01		
	UNITS	QC-01	RDL	QC Batch
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	6559564
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.0050	0.0050	6563432
Acenaphthylene	ug/g	<0.0050	0.0050	6563432
Anthracene	ug/g	<0.0050	0.0050	6563432
Benzo(a)anthracene	ug/g	<0.0050	0.0050	6563432
Benzo(a)pyrene	ug/g	<0.0050	0.0050	6563432
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	6563432
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	6563432
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	6563432
Chrysene	ug/g	<0.0050	0.0050	6563432
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	6563432
Fluoranthene	ug/g	<0.0050	0.0050	6563432
Fluorene	ug/g	<0.0050	0.0050	6563432
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	6563432
1-Methylnaphthalene	ug/g	<0.0050	0.0050	6563432
2-Methylnaphthalene	ug/g	<0.0050	0.0050	6563432
Naphthalene	ug/g	<0.0050	0.0050	6563432
Phenanthrene	ug/g	<0.0050	0.0050	6563432
Pyrene	ug/g	<0.0050	0.0050	6563432
Surrogate Recovery (%)				
D10-Anthracene	%	110		6563432
D14-Terphenyl (FS)	%	110		6563432
D8-Acenaphthylene	%	103		6563432

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

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

BV Labs ID		LWF078	LWF080			LWF080			LWF082		
Sampling Date		2020/01/22 11:40	2020/01/22 13:20			2020/01/22 13:20			2020/01/23 10:20		
COC Number		756404-01-01	756404-01-01			756404-01-01			756404-03-01		
	UNITS	MW20-3-2	MW20-4-3	RDL	QC Batch	MW20-4-3 Lab-Dup	RDL	QC Batch	MW20-5-2	RDL	QC Batch
Inorganics											
Moisture	%	18	20	1.0	6561654				16	1.0	6561654
BTEX & F1 Hydrocarbons											
Benzene	ug/g	<0.020	<0.020	0.020	6562619	<0.020	0.020	6562619	<0.020	0.020	6562619
Toluene	ug/g	<0.020	<0.020	0.020	6562619	<0.020	0.020	6562619	<0.020	0.020	6562619
Ethylbenzene	ug/g	<0.020	<0.020	0.020	6562619	<0.020	0.020	6562619	<0.020	0.020	6562619
o-Xylene	ug/g	<0.020	<0.020	0.020	6562619	<0.020	0.020	6562619	<0.020	0.020	6562619
p+m-Xylene	ug/g	<0.040	<0.040	0.040	6562619	<0.040	0.040	6562619	0.052	0.040	6562619
Total Xylenes	ug/g	<0.040	<0.040	0.040	6562619	<0.040	0.040	6562619	0.052	0.040	6562619
F1 (C6-C10)	ug/g	<10	<10	10	6562619	<10	10	6562619	<10	10	6562619
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	6562619	<10	10	6562619	<10	10	6562619
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	6562523				<10	10	6562523
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	6562523				<50	50	6562523
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	6562523				<50	50	6562523
Reached Baseline at C50	ug/g	Yes	Yes		6562523				Yes		6562523
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	100	101		6562619	100		6562619	100		6562619
4-Bromofluorobenzene	%	101	100		6562619	99		6562619	100		6562619
D10-Ethylbenzene	%	89	98		6562619	91		6562619	110		6562619
D4-1,2-Dichloroethane	%	99	98		6562619	99		6562619	98		6562619
o-Terphenyl	%	86	88		6562523				89		6562523

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

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

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

BV Labs ID		LWF084		
Sampling Date		2020/01/22		
COC Number		756404-03-01		
	UNITS	QC-01	RDL	QC Batch
Inorganics				
Moisture	%	17	1.0	6561654
BTEX & F1 Hydrocarbons				
Benzene	ug/g	<0.020	0.020	6562619
Toluene	ug/g	<0.020	0.020	6562619
Ethylbenzene	ug/g	<0.020	0.020	6562619
o-Xylene	ug/g	<0.020	0.020	6562619
p+m-Xylene	ug/g	<0.040	0.040	6562619
Total Xylenes	ug/g	<0.040	0.040	6562619
F1 (C6-C10)	ug/g	<10	10	6562619
F1 (C6-C10) - BTEX	ug/g	<10	10	6562619
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	6562523
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	6562523
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	6562523
Reached Baseline at C50	ug/g	Yes		6562523
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	102		6562619
4-Bromofluorobenzene	%	100		6562619
D10-Ethylbenzene	%	99		6562619
D4-1,2-Dichloroethane	%	99		6562619
o-Terphenyl	%	89		6562523

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

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

BV Labs ID		LWF072	LWF076		
Sampling Date		2020/01/22 15:00	2020/01/22 13:40		
COC Number		756404-01-01	756404-01-01		
	UNITS	MW20-1-3	MW20-2-1	RDL	QC Batch
Inorganics					
Moisture	%	13	10	1.0	6561654
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	6557686
Volatile Organics					
Acetone (2-Propanone)	ug/g	<0.50	<0.50	0.50	6561448
Benzene	ug/g	<0.020	<0.020	0.020	6561448
Bromodichloromethane	ug/g	<0.050	<0.050	0.050	6561448
Bromoform	ug/g	<0.050	<0.050	0.050	6561448
Bromomethane	ug/g	<0.050	<0.050	0.050	6561448
Carbon Tetrachloride	ug/g	<0.050	<0.050	0.050	6561448
Chlorobenzene	ug/g	<0.050	<0.050	0.050	6561448
Chloroform	ug/g	<0.050	<0.050	0.050	6561448
Dibromochloromethane	ug/g	<0.050	<0.050	0.050	6561448
1,2-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	6561448
1,3-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	6561448
1,4-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	6561448
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	<0.050	0.050	6561448
1,1-Dichloroethane	ug/g	<0.050	<0.050	0.050	6561448
1,2-Dichloroethane	ug/g	<0.050	<0.050	0.050	6561448
1,1-Dichloroethylene	ug/g	<0.050	<0.050	0.050	6561448
cis-1,2-Dichloroethylene	ug/g	<0.050	<0.050	0.050	6561448
trans-1,2-Dichloroethylene	ug/g	<0.050	<0.050	0.050	6561448
1,2-Dichloropropane	ug/g	<0.050	<0.050	0.050	6561448
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	6561448
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	6561448
Ethylbenzene	ug/g	<0.020	<0.020	0.020	6561448
Ethylene Dibromide	ug/g	<0.050	<0.050	0.050	6561448
Hexane	ug/g	<0.050	<0.050	0.050	6561448
Methylene Chloride(Dichloromethane)	ug/g	<0.050	<0.050	0.050	6561448
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	<0.50	0.50	6561448
Methyl Isobutyl Ketone	ug/g	<0.50	<0.50	0.50	6561448

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

BV Labs ID		LWF072	LWF076		
Sampling Date		2020/01/22 15:00	2020/01/22 13:40		
COC Number		756404-01-01	756404-01-01		
	UNITS	MW20-1-3	MW20-2-1	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/g	<0.050	<0.050	0.050	6561448
Styrene	ug/g	<0.050	<0.050	0.050	6561448
1,1,1,2-Tetrachloroethane	ug/g	<0.050	<0.050	0.050	6561448
1,1,2,2-Tetrachloroethane	ug/g	<0.050	<0.050	0.050	6561448
Tetrachloroethylene	ug/g	<0.050	<0.050	0.050	6561448
Toluene	ug/g	<0.020	<0.020	0.020	6561448
1,1,1-Trichloroethane	ug/g	<0.050	<0.050	0.050	6561448
1,1,2-Trichloroethane	ug/g	<0.050	<0.050	0.050	6561448
Trichloroethylene	ug/g	<0.050	<0.050	0.050	6561448
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	<0.050	0.050	6561448
Vinyl Chloride	ug/g	<0.020	<0.020	0.020	6561448
p+m-Xylene	ug/g	<0.020	<0.020	0.020	6561448
o-Xylene	ug/g	<0.020	<0.020	0.020	6561448
Total Xylenes	ug/g	<0.020	<0.020	0.020	6561448
F1 (C6-C10)	ug/g	<10	<10	10	6561448
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	6561448
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	6562523
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	6562523
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	6562523
Reached Baseline at C50	ug/g	Yes	Yes		6562523
Surrogate Recovery (%)					
o-Terphenyl	%	86	90		6562523
4-Bromofluorobenzene	%	86	85		6561448
D10-o-Xylene	%	85	88		6561448
D4-1,2-Dichloroethane	%	117	121		6561448
D8-Toluene	%	94	93		6561448

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

RESULTS OF ANALYSES OF SOIL

BV Labs ID		LWF076	LWF076	
Sampling Date		2020/01/22 13:40	2020/01/22 13:40	
COC Number		756404-01-01	756404-01-01	
	UNITS	MW20-2-1	MW20-2-1 Lab-Dup	QC Batch
Inorganics				
Available (CaCl2) pH	pH	7.89	7.95	6562017

QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: LWF072
Sample ID: MW20-1-3
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6557686	N/A	2020/01/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6561448	N/A	2020/01/29	Karen Hughes

BV Labs ID: LWF076
Sample ID: MW20-2-1
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	6557686	N/A	2020/01/30	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva
Volatile Organic Compounds and F1 PHCs	GC/MSFD	6561448	N/A	2020/01/29	Karen Hughes

BV Labs ID: LWF076 Dup
Sample ID: MW20-2-1
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva

BV Labs ID: LWF078
Sample ID: MW20-3-2
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6559564	N/A	2020/01/31	Automated Statchk
Hot Water Extractable Boron	ICP	6562248	2020/01/29	2020/01/30	Archana Patel
Free (WAD) Cyanide	TECH	6562388	2020/01/29	2020/01/30	Gnana Thomas
Conductivity	AT	6563811	2020/01/30	2020/01/30	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6562085	2020/01/29	2020/01/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6562619	N/A	2020/01/29	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Strong Acid Leachable Metals by ICPMS	ICP/MS	6562361	2020/01/29	2020/01/29	Daniel Teclu
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	6563432	2020/01/29	2020/01/30	Mitesh Raj
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6559543	N/A	2020/01/31	Automated Statchk

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: LWF080
Sample ID: MW20-4-3
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6559564	N/A	2020/01/31	Automated Statchk
Hot Water Extractable Boron	ICP	6562248	2020/01/29	2020/01/30	Archana Patel
Free (WAD) Cyanide	TECH	6562388	2020/01/29	2020/01/30	Gnana Thomas
Conductivity	AT	6563811	2020/01/30	2020/01/30	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6562085	2020/01/29	2020/01/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6562619	N/A	2020/01/29	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Strong Acid Leachable Metals by ICPMS	ICP/MS	6562361	2020/01/29	2020/01/29	Daniel Teclu
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	6563432	2020/01/29	2020/01/30	Mitesh Raj
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6559543	N/A	2020/01/31	Automated Statchk

BV Labs ID: LWF080 Dup
Sample ID: MW20-4-3
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6562619	N/A	2020/01/29	Georgeta Rusu

BV Labs ID: LWF082
Sample ID: MW20-5-2
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6559564	N/A	2020/01/31	Automated Statchk
Hot Water Extractable Boron	ICP	6562248	2020/01/29	2020/01/30	Archana Patel
Free (WAD) Cyanide	TECH	6562388	2020/01/29	2020/01/30	Gnana Thomas
Conductivity	AT	6563811	2020/01/30	2020/01/30	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6562085	2020/01/29	2020/01/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6562619	N/A	2020/01/29	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Strong Acid Leachable Metals by ICPMS	ICP/MS	6562361	2020/01/29	2020/01/29	Daniel Teclu
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	6563432	2020/01/29	2020/01/30	Mitesh Raj
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6559543	N/A	2020/01/31	Automated Statchk

BV Labs ID: LWF082 Dup
Sample ID: MW20-5-2
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	6563432	2020/01/29	2020/01/30	Mitesh Raj

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TEST SUMMARY

BV Labs ID: LWF083
Sample ID: MW20-5-4
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	6580184	2020/02/08	2020/02/10	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	6581073	2020/02/10	2020/02/11	Louise Harding
Conductivity	AT	6581294	2020/02/10	2020/02/10	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6580738	2020/02/10	2020/02/11	Violeta Porcila
Strong Acid Leachable Metals by ICPMS	ICP/MS	6580132	2020/02/08	2020/02/10	Daniel Teclu
Moisture	BAL	6579623	N/A	2020/02/07	Min Yang
pH CaCl2 EXTRACT	AT	6581444	2020/02/10	2020/02/10	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6575721	N/A	2020/02/11	Automated Statchk

BV Labs ID: LWF083 Dup
Sample ID: MW20-5-4
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	6581294	2020/02/10	2020/02/10	Kazzandra Adeva

BV Labs ID: LWF084
Sample ID: QC-01
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	6559564	N/A	2020/01/31	Automated Statchk
Hot Water Extractable Boron	ICP	6562248	2020/01/29	2020/01/30	Archana Patel
Free (WAD) Cyanide	TECH	6562388	2020/01/29	2020/01/30	Gnana Thomas
Conductivity	AT	6563811	2020/01/30	2020/01/30	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6562085	2020/01/29	2020/01/30	Violeta Porcila
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	6562619	N/A	2020/01/30	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	6562523	2020/01/29	2020/01/30	Prabhjot Gulati
Strong Acid Leachable Metals by ICPMS	ICP/MS	6562361	2020/01/29	2020/01/29	Daniel Teclu
Moisture	BAL	6561654	N/A	2020/01/29	Mithunaa Sasitheepan
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	6563432	2020/01/29	2020/01/30	Mitesh Raj
pH CaCl2 EXTRACT	AT	6562017	2020/01/29	2020/01/29	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6559543	N/A	2020/01/31	Automated Statchk

BV Labs ID: LWF084 Dup
Sample ID: QC-01
Matrix: Soil

Collected: 2020/01/22
Shipped:
Received: 2020/01/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Free (WAD) Cyanide	TECH	6562388	2020/01/29	2020/01/30	Gnana Thomas

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GENERAL COMMENTS

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

Package 1	3.0°C
Package 2	1.7°C

O.Reg 153/04 metals and inorganics analysis has been included on sample MW20-5-4 as per client request.

Size distribution analysis has been included on sample Grain Size 1 as per client request.

Sample LWF080 [MW20-4-3] : F1/BTEX Analysis: Greater than 10g of soil was submitted in the field preserved vial. This significantly exceeds the protocol specification of approximately 5g. Additional methanol was added to the vial to ensure extraction efficiency.

Sample LWF084 [QC-01] : F1/BTEX Analysis: Greater than 10g of soil was submitted in the field preserved vial. This significantly exceeds the protocol specification of approximately 5g. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6561448	KH2	Matrix Spike	4-Bromofluorobenzene	2020/01/29		97	%	60 - 140
			D10-o-Xylene	2020/01/29		98	%	60 - 130
			D4-1,2-Dichloroethane	2020/01/29		113	%	60 - 140
			D8-Toluene	2020/01/29		103	%	60 - 140
			Acetone (2-Propanone)	2020/01/29		110	%	60 - 140
			Benzene	2020/01/29		92	%	60 - 140
			Bromodichloromethane	2020/01/29		92	%	60 - 140
			Bromoform	2020/01/29		97	%	60 - 140
			Bromomethane	2020/01/29		93	%	60 - 140
			Carbon Tetrachloride	2020/01/29		93	%	60 - 140
			Chlorobenzene	2020/01/29		86	%	60 - 140
			Chloroform	2020/01/29		90	%	60 - 140
			Dibromochloromethane	2020/01/29		98	%	60 - 140
			1,2-Dichlorobenzene	2020/01/29		84	%	60 - 140
			1,3-Dichlorobenzene	2020/01/29		85	%	60 - 140
			1,4-Dichlorobenzene	2020/01/29		87	%	60 - 140
			Dichlorodifluoromethane (FREON 12)	2020/01/29		89	%	60 - 140
			1,1-Dichloroethane	2020/01/29		92	%	60 - 140
			1,2-Dichloroethane	2020/01/29		106	%	60 - 140
			1,1-Dichloroethylene	2020/01/29		95	%	60 - 140
			cis-1,2-Dichloroethylene	2020/01/29		89	%	60 - 140
			trans-1,2-Dichloroethylene	2020/01/29		92	%	60 - 140
			1,2-Dichloropropane	2020/01/29		90	%	60 - 140
			cis-1,3-Dichloropropene	2020/01/29		84	%	60 - 140
			trans-1,3-Dichloropropene	2020/01/29		89	%	60 - 140
			Ethylbenzene	2020/01/29		76	%	60 - 140
			Ethylene Dibromide	2020/01/29		100	%	60 - 140
			Hexane	2020/01/29		90	%	60 - 140
			Methylene Chloride(Dichloromethane)	2020/01/29		100	%	60 - 140
			Methyl Ethyl Ketone (2-Butanone)	2020/01/29		110	%	60 - 140
			Methyl Isobutyl Ketone	2020/01/29		98	%	60 - 140
			Methyl t-butyl ether (MTBE)	2020/01/29		82	%	60 - 140
			Styrene	2020/01/29		79	%	60 - 140
			1,1,1,2-Tetrachloroethane	2020/01/29		98	%	60 - 140
			1,1,2,2-Tetrachloroethane	2020/01/29		94	%	60 - 140
			Tetrachloroethylene	2020/01/29		86	%	60 - 140
			Toluene	2020/01/29		84	%	60 - 140
			1,1,1-Trichloroethane	2020/01/29		93	%	60 - 140
			1,1,2-Trichloroethane	2020/01/29		101	%	60 - 140
			Trichloroethylene	2020/01/29		94	%	60 - 140
			Trichlorofluoromethane (FREON 11)	2020/01/29		100	%	60 - 140
			Vinyl Chloride	2020/01/29		94	%	60 - 140
			p+m-Xylene	2020/01/29		80	%	60 - 140
			o-Xylene	2020/01/29		78	%	60 - 140
			F1 (C6-C10)	2020/01/29		92	%	60 - 140
6561448	KH2	Spiked Blank	4-Bromofluorobenzene	2020/01/29		96	%	60 - 140
			D10-o-Xylene	2020/01/29		109	%	60 - 130
			D4-1,2-Dichloroethane	2020/01/29		108	%	60 - 140
			D8-Toluene	2020/01/29		105	%	60 - 140
			Acetone (2-Propanone)	2020/01/29		102	%	60 - 140
			Benzene	2020/01/29		93	%	60 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Bromodichloromethane	2020/01/29		90	%	60 - 130
			Bromoform	2020/01/29		95	%	60 - 130
			Bromomethane	2020/01/29		94	%	60 - 140
			Carbon Tetrachloride	2020/01/29		97	%	60 - 130
			Chlorobenzene	2020/01/29		89	%	60 - 130
			Chloroform	2020/01/29		91	%	60 - 130
			Dibromochloromethane	2020/01/29		98	%	60 - 130
			1,2-Dichlorobenzene	2020/01/29		88	%	60 - 130
			1,3-Dichlorobenzene	2020/01/29		90	%	60 - 130
			1,4-Dichlorobenzene	2020/01/29		92	%	60 - 130
			Dichlorodifluoromethane (FREON 12)	2020/01/29		94	%	60 - 140
			1,1-Dichloroethane	2020/01/29		93	%	60 - 130
			1,2-Dichloroethane	2020/01/29		102	%	60 - 130
			1,1-Dichloroethylene	2020/01/29		99	%	60 - 130
			cis-1,2-Dichloroethylene	2020/01/29		90	%	60 - 130
			trans-1,2-Dichloroethylene	2020/01/29		94	%	60 - 130
			1,2-Dichloropropane	2020/01/29		89	%	60 - 130
			cis-1,3-Dichloropropene	2020/01/29		82	%	60 - 130
			trans-1,3-Dichloropropene	2020/01/29		87	%	60 - 130
			Ethylbenzene	2020/01/29		82	%	60 - 130
			Ethylene Dibromide	2020/01/29		97	%	60 - 130
			Hexane	2020/01/29		95	%	60 - 130
			Methylene Chloride(Dichloromethane)	2020/01/29		99	%	60 - 130
			Methyl Ethyl Ketone (2-Butanone)	2020/01/29		103	%	60 - 140
			Methyl Isobutyl Ketone	2020/01/29		94	%	60 - 130
			Methyl t-butyl ether (MTBE)	2020/01/29		81	%	60 - 130
			Styrene	2020/01/29		85	%	60 - 130
			1,1,1,2-Tetrachloroethane	2020/01/29		101	%	60 - 130
			1,1,2,2-Tetrachloroethane	2020/01/29		91	%	60 - 130
			Tetrachloroethylene	2020/01/29		91	%	60 - 130
			Toluene	2020/01/29		88	%	60 - 130
			1,1,1-Trichloroethane	2020/01/29		96	%	60 - 130
			1,1,2-Trichloroethane	2020/01/29		99	%	60 - 130
			Trichloroethylene	2020/01/29		97	%	60 - 130
			Trichlorofluoromethane (FREON 11)	2020/01/29		104	%	60 - 130
			Vinyl Chloride	2020/01/29		96	%	60 - 130
			p+m-Xylene	2020/01/29		87	%	60 - 130
			o-Xylene	2020/01/29		84	%	60 - 130
			F1 (C6-C10)	2020/01/29		93	%	80 - 120
6561448	KH2	Method Blank	4-Bromofluorobenzene	2020/01/29		88	%	60 - 140
			D10-o-Xylene	2020/01/29		88	%	60 - 130
			D4-1,2-Dichloroethane	2020/01/29		114	%	60 - 140
			D8-Toluene	2020/01/29		95	%	60 - 140
			Acetone (2-Propanone)	2020/01/29	<0.50		ug/g	
			Benzene	2020/01/29	<0.020		ug/g	
			Bromodichloromethane	2020/01/29	<0.050		ug/g	
			Bromoform	2020/01/29	<0.050		ug/g	
			Bromomethane	2020/01/29	<0.050		ug/g	
			Carbon Tetrachloride	2020/01/29	<0.050		ug/g	
			Chlorobenzene	2020/01/29	<0.050		ug/g	
			Chloroform	2020/01/29	<0.050		ug/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Dibromochloromethane	2020/01/29	<0.050		ug/g	
			1,2-Dichlorobenzene	2020/01/29	<0.050		ug/g	
			1,3-Dichlorobenzene	2020/01/29	<0.050		ug/g	
			1,4-Dichlorobenzene	2020/01/29	<0.050		ug/g	
			Dichlorodifluoromethane (FREON 12)	2020/01/29	<0.050		ug/g	
			1,1-Dichloroethane	2020/01/29	<0.050		ug/g	
			1,2-Dichloroethane	2020/01/29	<0.050		ug/g	
			1,1-Dichloroethylene	2020/01/29	<0.050		ug/g	
			cis-1,2-Dichloroethylene	2020/01/29	<0.050		ug/g	
			trans-1,2-Dichloroethylene	2020/01/29	<0.050		ug/g	
			1,2-Dichloropropane	2020/01/29	<0.050		ug/g	
			cis-1,3-Dichloropropene	2020/01/29	<0.030		ug/g	
			trans-1,3-Dichloropropene	2020/01/29	<0.040		ug/g	
			Ethylbenzene	2020/01/29	<0.020		ug/g	
			Ethylene Dibromide	2020/01/29	<0.050		ug/g	
			Hexane	2020/01/29	<0.050		ug/g	
			Methylene Chloride(Dichloromethane)	2020/01/29	<0.050		ug/g	
			Methyl Ethyl Ketone (2-Butanone)	2020/01/29	<0.50		ug/g	
			Methyl Isobutyl Ketone	2020/01/29	<0.50		ug/g	
			Methyl t-butyl ether (MTBE)	2020/01/29	<0.050		ug/g	
			Styrene	2020/01/29	<0.050		ug/g	
			1,1,1,2-Tetrachloroethane	2020/01/29	<0.050		ug/g	
			1,1,2,2-Tetrachloroethane	2020/01/29	<0.050		ug/g	
			Tetrachloroethylene	2020/01/29	<0.050		ug/g	
			Toluene	2020/01/29	<0.020		ug/g	
			1,1,1-Trichloroethane	2020/01/29	<0.050		ug/g	
			1,1,2-Trichloroethane	2020/01/29	<0.050		ug/g	
			Trichloroethylene	2020/01/29	<0.050		ug/g	
			Trichlorofluoromethane (FREON 11)	2020/01/29	<0.050		ug/g	
			Vinyl Chloride	2020/01/29	<0.020		ug/g	
			p+m-Xylene	2020/01/29	<0.020		ug/g	
			o-Xylene	2020/01/29	<0.020		ug/g	
			Total Xylenes	2020/01/29	<0.020		ug/g	
			F1 (C6-C10)	2020/01/29	<10		ug/g	
			F1 (C6-C10) - BTEX	2020/01/29	<10		ug/g	
6561448	KH2	RPD	Acetone (2-Propanone)	2020/01/29	NC		%	50
			Benzene	2020/01/29	NC		%	50
			Bromodichloromethane	2020/01/29	NC		%	50
			Bromoform	2020/01/29	NC		%	50
			Bromomethane	2020/01/29	NC		%	50
			Carbon Tetrachloride	2020/01/29	NC		%	50
			Chlorobenzene	2020/01/29	NC		%	50
			Chloroform	2020/01/29	NC		%	50
			Dibromochloromethane	2020/01/29	NC		%	50
			1,2-Dichlorobenzene	2020/01/29	NC		%	50
			1,3-Dichlorobenzene	2020/01/29	NC		%	50
			1,4-Dichlorobenzene	2020/01/29	NC		%	50
			Dichlorodifluoromethane (FREON 12)	2020/01/29	NC		%	50
			1,1-Dichloroethane	2020/01/29	NC		%	50
			1,2-Dichloroethane	2020/01/29	NC		%	50
			1,1-Dichloroethylene	2020/01/29	NC		%	50

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			cis-1,2-Dichloroethylene	2020/01/29	NC		%	50
			trans-1,2-Dichloroethylene	2020/01/29	NC		%	50
			1,2-Dichloropropane	2020/01/29	NC		%	50
			cis-1,3-Dichloropropene	2020/01/29	NC		%	50
			trans-1,3-Dichloropropene	2020/01/29	NC		%	50
			Ethylbenzene	2020/01/29	NC		%	50
			Ethylene Dibromide	2020/01/29	NC		%	50
			Hexane	2020/01/29	NC		%	50
			Methylene Chloride(Dichloromethane)	2020/01/29	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2020/01/29	NC		%	50
			Methyl Isobutyl Ketone	2020/01/29	NC		%	50
			Methyl t-butyl ether (MTBE)	2020/01/29	NC		%	50
			Styrene	2020/01/29	NC		%	50
			1,1,1,2-Tetrachloroethane	2020/01/29	NC		%	50
			1,1,2,2-Tetrachloroethane	2020/01/29	NC		%	50
			Tetrachloroethylene	2020/01/29	NC		%	50
			Toluene	2020/01/29	NC		%	50
			1,1,1-Trichloroethane	2020/01/29	NC		%	50
			1,1,2-Trichloroethane	2020/01/29	NC		%	50
			Trichloroethylene	2020/01/29	NC		%	50
			Trichlorofluoromethane (FREON 11)	2020/01/29	NC		%	50
			Vinyl Chloride	2020/01/29	NC		%	50
			p+m-Xylene	2020/01/29	NC		%	50
			o-Xylene	2020/01/29	NC		%	50
			Total Xylenes	2020/01/29	NC		%	50
			F1 (C6-C10)	2020/01/29	NC		%	30
			F1 (C6-C10) - BTEX	2020/01/29	NC		%	30
6561654	GYA	RPD	Moisture	2020/01/29	0.53		%	20
6562017	KAD	Spiked Blank	Available (CaCl2) pH	2020/01/29		101	%	97 - 103
6562017	KAD	RPD [LWF076-01]	Available (CaCl2) pH	2020/01/29	0.76		%	N/A
6562085	VP2	Matrix Spike	Chromium (VI)	2020/01/30		15 (1)	%	70 - 130
6562085	VP2	Spiked Blank	Chromium (VI)	2020/01/30		89	%	80 - 120
6562085	VP2	Method Blank	Chromium (VI)	2020/01/30	<0.2		ug/g	
6562085	VP2	RPD	Chromium (VI)	2020/01/30	NC		%	35
6562248	APT	Matrix Spike	Hot Water Ext. Boron (B)	2020/01/30		99	%	75 - 125
6562248	APT	Spiked Blank	Hot Water Ext. Boron (B)	2020/01/30		106	%	75 - 125
6562248	APT	Method Blank	Hot Water Ext. Boron (B)	2020/01/30	<0.050		ug/g	
6562248	APT	RPD	Hot Water Ext. Boron (B)	2020/01/30	1.8		%	40
6562361	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2020/01/29		89	%	75 - 125
			Acid Extractable Arsenic (As)	2020/01/29		93	%	75 - 125
			Acid Extractable Barium (Ba)	2020/01/29		90	%	75 - 125
			Acid Extractable Beryllium (Be)	2020/01/29		91	%	75 - 125
			Acid Extractable Boron (B)	2020/01/29		84	%	75 - 125
			Acid Extractable Cadmium (Cd)	2020/01/29		92	%	75 - 125
			Acid Extractable Chromium (Cr)	2020/01/29		90	%	75 - 125
			Acid Extractable Cobalt (Co)	2020/01/29		89	%	75 - 125
			Acid Extractable Copper (Cu)	2020/01/29		85	%	75 - 125
			Acid Extractable Lead (Pb)	2020/01/29		88	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2020/01/29		90	%	75 - 125
			Acid Extractable Nickel (Ni)	2020/01/29		86	%	75 - 125
			Acid Extractable Selenium (Se)	2020/01/29		95	%	75 - 125

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Silver (Ag)	2020/01/29		91	%	75 - 125
			Acid Extractable Thallium (Tl)	2020/01/29		92	%	75 - 125
			Acid Extractable Uranium (U)	2020/01/29		93	%	75 - 125
			Acid Extractable Vanadium (V)	2020/01/29		88	%	75 - 125
			Acid Extractable Zinc (Zn)	2020/01/29		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2020/01/29		88	%	75 - 125
6562361	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2020/01/29		100	%	80 - 120
			Acid Extractable Arsenic (As)	2020/01/29		101	%	80 - 120
			Acid Extractable Barium (Ba)	2020/01/29		102	%	80 - 120
			Acid Extractable Beryllium (Be)	2020/01/29		95	%	80 - 120
			Acid Extractable Boron (B)	2020/01/29		97	%	80 - 120
			Acid Extractable Cadmium (Cd)	2020/01/29		97	%	80 - 120
			Acid Extractable Chromium (Cr)	2020/01/29		95	%	80 - 120
			Acid Extractable Cobalt (Co)	2020/01/29		96	%	80 - 120
			Acid Extractable Copper (Cu)	2020/01/29		95	%	80 - 120
			Acid Extractable Lead (Pb)	2020/01/29		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2020/01/29		94	%	80 - 120
			Acid Extractable Nickel (Ni)	2020/01/29		96	%	80 - 120
			Acid Extractable Selenium (Se)	2020/01/29		101	%	80 - 120
			Acid Extractable Silver (Ag)	2020/01/29		98	%	80 - 120
			Acid Extractable Thallium (Tl)	2020/01/29		97	%	80 - 120
			Acid Extractable Uranium (U)	2020/01/29		98	%	80 - 120
			Acid Extractable Vanadium (V)	2020/01/29		94	%	80 - 120
			Acid Extractable Zinc (Zn)	2020/01/29		99	%	80 - 120
			Acid Extractable Mercury (Hg)	2020/01/29		92	%	80 - 120
6562361	DT1	Method Blank	Acid Extractable Antimony (Sb)	2020/01/29	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2020/01/29	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2020/01/29	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2020/01/29	<0.20		ug/g	
			Acid Extractable Boron (B)	2020/01/29	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2020/01/29	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2020/01/29	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2020/01/29	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2020/01/29	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2020/01/29	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2020/01/29	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2020/01/29	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2020/01/29	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2020/01/29	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2020/01/29	<0.050		ug/g	
			Acid Extractable Uranium (U)	2020/01/29	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2020/01/29	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2020/01/29	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2020/01/29	<0.050		ug/g	
6562361	DT1	RPD	Acid Extractable Antimony (Sb)	2020/01/29	NC		%	30
			Acid Extractable Arsenic (As)	2020/01/29	16		%	30
			Acid Extractable Barium (Ba)	2020/01/29	1.0		%	30
			Acid Extractable Beryllium (Be)	2020/01/29	1.2		%	30
			Acid Extractable Boron (B)	2020/01/29	7.7		%	30
			Acid Extractable Cadmium (Cd)	2020/01/29	8.8		%	30
			Acid Extractable Chromium (Cr)	2020/01/29	7.5		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Cobalt (Co)	2020/01/29	1.1		%	30
			Acid Extractable Copper (Cu)	2020/01/29	6.1		%	30
			Acid Extractable Lead (Pb)	2020/01/29	9.2		%	30
			Acid Extractable Molybdenum (Mo)	2020/01/29	NC		%	30
			Acid Extractable Nickel (Ni)	2020/01/29	4.0		%	30
			Acid Extractable Selenium (Se)	2020/01/29	NC		%	30
			Acid Extractable Silver (Ag)	2020/01/29	NC		%	30
			Acid Extractable Thallium (Tl)	2020/01/29	11		%	30
			Acid Extractable Uranium (U)	2020/01/29	27		%	30
			Acid Extractable Vanadium (V)	2020/01/29	5.9		%	30
			Acid Extractable Zinc (Zn)	2020/01/29	3.9		%	30
6562388	GTO	Matrix Spike [LWF084-01]	WAD Cyanide (Free)	2020/01/30		101	%	75 - 125
6562388	GTO	Spiked Blank	WAD Cyanide (Free)	2020/01/30		103	%	80 - 120
6562388	GTO	Method Blank	WAD Cyanide (Free)	2020/01/30	<0.01		ug/g	
6562388	GTO	RPD [LWF084-01]	WAD Cyanide (Free)	2020/01/30	NC		%	35
6562523	GUL	Matrix Spike	o-Terphenyl	2020/01/30		87	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/01/30		95	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2020/01/30		95	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2020/01/30		95	%	50 - 130
6562523	GUL	Spiked Blank	o-Terphenyl	2020/01/30		87	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/01/30		93	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2020/01/30		94	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2020/01/30		94	%	80 - 120
6562523	GUL	Method Blank	o-Terphenyl	2020/01/30		89	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2020/01/30	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2020/01/30	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2020/01/30	<50		ug/g	
6562523	GUL	RPD	F2 (C10-C16 Hydrocarbons)	2020/01/30	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2020/01/30	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2020/01/30	NC		%	30
6562619	GRU	Matrix Spike [LWF080-03]	1,4-Difluorobenzene	2020/01/29		101	%	60 - 140
			4-Bromofluorobenzene	2020/01/29		100	%	60 - 140
			D10-Ethylbenzene	2020/01/29		100	%	60 - 140
			D4-1,2-Dichloroethane	2020/01/29		100	%	60 - 140
			Benzene	2020/01/29		88	%	60 - 140
			Toluene	2020/01/29		89	%	60 - 140
			Ethylbenzene	2020/01/29		98	%	60 - 140
			o-Xylene	2020/01/29		96	%	60 - 140
			p+m-Xylene	2020/01/29		95	%	60 - 140
			F1 (C6-C10)	2020/01/29		99	%	60 - 140
6562619	GRU	Spiked Blank	1,4-Difluorobenzene	2020/01/29		101	%	60 - 140
			4-Bromofluorobenzene	2020/01/29		100	%	60 - 140
			D10-Ethylbenzene	2020/01/29		101	%	60 - 140
			D4-1,2-Dichloroethane	2020/01/29		98	%	60 - 140
			Benzene	2020/01/29		103	%	60 - 140
			Toluene	2020/01/29		100	%	60 - 140
			Ethylbenzene	2020/01/29		111	%	60 - 140
			o-Xylene	2020/01/29		107	%	60 - 140
			p+m-Xylene	2020/01/29		109	%	60 - 140
			F1 (C6-C10)	2020/01/29		99	%	80 - 120
6562619	GRU	Method Blank	1,4-Difluorobenzene	2020/01/29		100	%	60 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			4-Bromofluorobenzene	2020/01/29		97	%	60 - 140
			D10-Ethylbenzene	2020/01/29		100	%	60 - 140
			D4-1,2-Dichloroethane	2020/01/29		96	%	60 - 140
			Benzene	2020/01/29	<0.020		ug/g	
			Toluene	2020/01/29	<0.020		ug/g	
			Ethylbenzene	2020/01/29	<0.020		ug/g	
			o-Xylene	2020/01/29	<0.020		ug/g	
			p+m-Xylene	2020/01/29	<0.040		ug/g	
			Total Xylenes	2020/01/29	<0.040		ug/g	
			F1 (C6-C10)	2020/01/29	<10		ug/g	
			F1 (C6-C10) - BTEX	2020/01/29	<10		ug/g	
6562619	GRU	RPD [LWF080-03]	Benzene	2020/01/29	NC		%	50
			Toluene	2020/01/29	NC		%	50
			Ethylbenzene	2020/01/29	NC		%	50
			o-Xylene	2020/01/29	NC		%	50
			p+m-Xylene	2020/01/29	NC		%	50
			Total Xylenes	2020/01/29	NC		%	50
			F1 (C6-C10)	2020/01/29	NC		%	30
			F1 (C6-C10) - BTEX	2020/01/29	NC		%	30
6563432	RAJ	Matrix Spike [LWF082-02]	D10-Anthracene	2020/01/30		105	%	50 - 130
			D14-Terphenyl (FS)	2020/01/30		107	%	50 - 130
			D8-Acenaphthylene	2020/01/30		100	%	50 - 130
			Acenaphthene	2020/01/30		102	%	50 - 130
			Acenaphthylene	2020/01/30		101	%	50 - 130
			Anthracene	2020/01/30		101	%	50 - 130
			Benzo(a)anthracene	2020/01/30		111	%	50 - 130
			Benzo(a)pyrene	2020/01/30		104	%	50 - 130
			Benzo(b/j)fluoranthene	2020/01/30		93	%	50 - 130
			Benzo(g,h,i)perylene	2020/01/30		102	%	50 - 130
			Benzo(k)fluoranthene	2020/01/30		92	%	50 - 130
			Chrysene	2020/01/30		108	%	50 - 130
			Dibenzo(a,h)anthracene	2020/01/30		101	%	50 - 130
			Fluoranthene	2020/01/30		107	%	50 - 130
			Fluorene	2020/01/30		99	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2020/01/30		111	%	50 - 130
			1-Methylnaphthalene	2020/01/30		104	%	50 - 130
			2-Methylnaphthalene	2020/01/30		96	%	50 - 130
			Naphthalene	2020/01/30		89	%	50 - 130
			Phenanthrene	2020/01/30		100	%	50 - 130
			Pyrene	2020/01/30		109	%	50 - 130
6563432	RAJ	Spiked Blank	D10-Anthracene	2020/01/29		112	%	50 - 130
			D14-Terphenyl (FS)	2020/01/29		112	%	50 - 130
			D8-Acenaphthylene	2020/01/29		106	%	50 - 130
			Acenaphthene	2020/01/29		105	%	50 - 130
			Acenaphthylene	2020/01/29		103	%	50 - 130
			Anthracene	2020/01/29		107	%	50 - 130
			Benzo(a)anthracene	2020/01/29		117	%	50 - 130
			Benzo(a)pyrene	2020/01/29		104	%	50 - 130
			Benzo(b/j)fluoranthene	2020/01/29		99	%	50 - 130
			Benzo(g,h,i)perylene	2020/01/29		106	%	50 - 130
			Benzo(k)fluoranthene	2020/01/29		97	%	50 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Chrysene	2020/01/29		113	%	50 - 130
			Dibenzo(a,h)anthracene	2020/01/29		101	%	50 - 130
			Fluoranthene	2020/01/29		112	%	50 - 130
			Fluorene	2020/01/29		104	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2020/01/29		115	%	50 - 130
			1-Methylnaphthalene	2020/01/29		104	%	50 - 130
			2-Methylnaphthalene	2020/01/29		98	%	50 - 130
			Naphthalene	2020/01/29		87	%	50 - 130
			Phenanthrene	2020/01/29		105	%	50 - 130
			Pyrene	2020/01/29		116	%	50 - 130
6563432	RAJ	Method Blank	D10-Anthracene	2020/01/29		109	%	50 - 130
			D14-Terphenyl (FS)	2020/01/29		108	%	50 - 130
			D8-Acenaphthylene	2020/01/29		100	%	50 - 130
			Acenaphthene	2020/01/29	<0.0050		ug/g	
			Acenaphthylene	2020/01/29	<0.0050		ug/g	
			Anthracene	2020/01/29	<0.0050		ug/g	
			Benzo(a)anthracene	2020/01/29	<0.0050		ug/g	
			Benzo(a)pyrene	2020/01/29	<0.0050		ug/g	
			Benzo(b/j)fluoranthene	2020/01/29	<0.0050		ug/g	
			Benzo(g,h,i)perylene	2020/01/29	<0.0050		ug/g	
			Benzo(k)fluoranthene	2020/01/29	<0.0050		ug/g	
			Chrysene	2020/01/29	<0.0050		ug/g	
			Dibenzo(a,h)anthracene	2020/01/29	<0.0050		ug/g	
			Fluoranthene	2020/01/29	<0.0050		ug/g	
			Fluorene	2020/01/29	<0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2020/01/29	<0.0050		ug/g	
			1-Methylnaphthalene	2020/01/29	<0.0050		ug/g	
			2-Methylnaphthalene	2020/01/29	<0.0050		ug/g	
			Naphthalene	2020/01/29	<0.0050		ug/g	
			Phenanthrene	2020/01/29	<0.0050		ug/g	
			Pyrene	2020/01/29	<0.0050		ug/g	
6563432	RAJ	RPD [LWF082-02]	Acenaphthene	2020/01/30	NC		%	40
			Acenaphthylene	2020/01/30	NC		%	40
			Anthracene	2020/01/30	NC		%	40
			Benzo(a)anthracene	2020/01/30	NC		%	40
			Benzo(a)pyrene	2020/01/30	NC		%	40
			Benzo(b/j)fluoranthene	2020/01/30	NC		%	40
			Benzo(g,h,i)perylene	2020/01/30	NC		%	40
			Benzo(k)fluoranthene	2020/01/30	NC		%	40
			Chrysene	2020/01/30	NC		%	40
			Dibenzo(a,h)anthracene	2020/01/30	NC		%	40
			Fluoranthene	2020/01/30	NC		%	40
			Fluorene	2020/01/30	NC		%	40
			Indeno(1,2,3-cd)pyrene	2020/01/30	NC		%	40
			1-Methylnaphthalene	2020/01/30	NC		%	40
			2-Methylnaphthalene	2020/01/30	NC		%	40
			Naphthalene	2020/01/30	NC		%	40
			Phenanthrene	2020/01/30	NC		%	40
			Pyrene	2020/01/30	NC		%	40
6563811	KAD	Spiked Blank	Conductivity	2020/01/30		103	%	90 - 110
6563811	KAD	Method Blank	Conductivity	2020/01/30	<0.002		mS/cm	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6563811	KAD	RPD	Conductivity	2020/01/30	2.2		%	10
6579623	KJP	RPD	Moisture	2020/02/07	3.2		%	20
6580132	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2020/02/11		105	%	75 - 125
			Acid Extractable Arsenic (As)	2020/02/11		110	%	75 - 125
			Acid Extractable Barium (Ba)	2020/02/11		117	%	75 - 125
			Acid Extractable Beryllium (Be)	2020/02/11		108	%	75 - 125
			Acid Extractable Boron (B)	2020/02/11		104	%	75 - 125
			Acid Extractable Cadmium (Cd)	2020/02/11		107	%	75 - 125
			Acid Extractable Chromium (Cr)	2020/02/11		107	%	75 - 125
			Acid Extractable Cobalt (Co)	2020/02/11		106	%	75 - 125
			Acid Extractable Copper (Cu)	2020/02/11		107	%	75 - 125
			Acid Extractable Lead (Pb)	2020/02/11		107	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2020/02/11		105	%	75 - 125
			Acid Extractable Nickel (Ni)	2020/02/11		108	%	75 - 125
			Acid Extractable Selenium (Se)	2020/02/11		111	%	75 - 125
			Acid Extractable Silver (Ag)	2020/02/11		113	%	75 - 125
			Acid Extractable Thallium (Tl)	2020/02/11		104	%	75 - 125
			Acid Extractable Uranium (U)	2020/02/11		106	%	75 - 125
			Acid Extractable Vanadium (V)	2020/02/11		108	%	75 - 125
			Acid Extractable Zinc (Zn)	2020/02/11		103	%	75 - 125
			Acid Extractable Mercury (Hg)	2020/02/11		139 (2)	%	75 - 125
6580132	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2020/02/10		102	%	80 - 120
			Acid Extractable Arsenic (As)	2020/02/10		100	%	80 - 120
			Acid Extractable Barium (Ba)	2020/02/10		107	%	80 - 120
			Acid Extractable Beryllium (Be)	2020/02/10		99	%	80 - 120
			Acid Extractable Boron (B)	2020/02/10		98	%	80 - 120
			Acid Extractable Cadmium (Cd)	2020/02/10		96	%	80 - 120
			Acid Extractable Chromium (Cr)	2020/02/10		100	%	80 - 120
			Acid Extractable Cobalt (Co)	2020/02/10		98	%	80 - 120
			Acid Extractable Copper (Cu)	2020/02/10		97	%	80 - 120
			Acid Extractable Lead (Pb)	2020/02/10		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2020/02/10		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2020/02/10		98	%	80 - 120
			Acid Extractable Selenium (Se)	2020/02/10		98	%	80 - 120
			Acid Extractable Silver (Ag)	2020/02/10		95	%	80 - 120
			Acid Extractable Thallium (Tl)	2020/02/10		99	%	80 - 120
			Acid Extractable Uranium (U)	2020/02/10		98	%	80 - 120
			Acid Extractable Vanadium (V)	2020/02/10		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2020/02/10		97	%	80 - 120
			Acid Extractable Mercury (Hg)	2020/02/10		89	%	80 - 120
6580132	DT1	Method Blank	Acid Extractable Antimony (Sb)	2020/02/10	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2020/02/10	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2020/02/10	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2020/02/10	<0.20		ug/g	
			Acid Extractable Boron (B)	2020/02/10	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2020/02/10	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2020/02/10	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2020/02/10	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2020/02/10	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2020/02/10	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2020/02/10	<0.50		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Nickel (Ni)	2020/02/10	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2020/02/10	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2020/02/10	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2020/02/10	<0.050		ug/g	
			Acid Extractable Uranium (U)	2020/02/10	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2020/02/10	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2020/02/10	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2020/02/10	<0.050		ug/g	
6580132	DT1	RPD	Acid Extractable Antimony (Sb)	2020/02/11	NC		%	30
			Acid Extractable Arsenic (As)	2020/02/11	13		%	30
			Acid Extractable Barium (Ba)	2020/02/11	9.7		%	30
			Acid Extractable Beryllium (Be)	2020/02/11	11		%	30
			Acid Extractable Boron (B)	2020/02/11	NC		%	30
			Acid Extractable Cadmium (Cd)	2020/02/11	NC		%	30
			Acid Extractable Chromium (Cr)	2020/02/11	0.60		%	30
			Acid Extractable Cobalt (Co)	2020/02/11	0.40		%	30
			Acid Extractable Copper (Cu)	2020/02/11	4.9		%	30
			Acid Extractable Lead (Pb)	2020/02/11	1.6		%	30
			Acid Extractable Molybdenum (Mo)	2020/02/11	28		%	30
			Acid Extractable Nickel (Ni)	2020/02/11	0.16		%	30
			Acid Extractable Selenium (Se)	2020/02/11	NC		%	30
			Acid Extractable Silver (Ag)	2020/02/11	9.6		%	30
			Acid Extractable Thallium (Tl)	2020/02/11	NC		%	30
			Acid Extractable Uranium (U)	2020/02/11	3.5		%	30
			Acid Extractable Vanadium (V)	2020/02/11	2.4		%	30
			Acid Extractable Zinc (Zn)	2020/02/11	6.2		%	30
			Acid Extractable Mercury (Hg)	2020/02/11	13		%	30
6580184	SUK	Matrix Spike	Hot Water Ext. Boron (B)	2020/02/10		114	%	75 - 125
6580184	SUK	Spiked Blank	Hot Water Ext. Boron (B)	2020/02/10		108	%	75 - 125
6580184	SUK	Method Blank	Hot Water Ext. Boron (B)	2020/02/10	<0.050		ug/g	
6580184	SUK	RPD	Hot Water Ext. Boron (B)	2020/02/10	3.7		%	40
6580738	VP2	Matrix Spike	Chromium (VI)	2020/02/11		71	%	70 - 130
6580738	VP2	Spiked Blank	Chromium (VI)	2020/02/11		89	%	80 - 120
6580738	VP2	Method Blank	Chromium (VI)	2020/02/11	<0.2		ug/g	
6580738	VP2	RPD	Chromium (VI)	2020/02/11	NC		%	35
6581073	LHA	Matrix Spike	WAD Cyanide (Free)	2020/02/11		97	%	75 - 125
6581073	LHA	Spiked Blank	WAD Cyanide (Free)	2020/02/11		98	%	80 - 120
6581073	LHA	Method Blank	WAD Cyanide (Free)	2020/02/11	<0.01		ug/g	
6581073	LHA	RPD	WAD Cyanide (Free)	2020/02/11	NC		%	35
6581294	KAD	Spiked Blank	Conductivity	2020/02/10		103	%	90 - 110
6581294	KAD	Method Blank	Conductivity	2020/02/10	<0.002		mS/cm	
6581294	KAD	RPD [LWF083-01]	Conductivity	2020/02/10	3.5		%	10
6581444	KAD	Spiked Blank	Available (CaCl2) pH	2020/02/10		100	%	97 - 103

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6581444	KAD	RPD	Available (CaCl2) pH	2020/02/10	0.94		%	N/A

N/A = Not Applicable

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

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

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

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

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

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

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

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

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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BV Labs Job #: C022735
Report Date: 2020/02/14

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Brad Newman, Scientific Service Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STANTEC C

27-Jan-20 14:30
Ronklin Gracian
C022735

ASR ENV-817

Page 1 of 3

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:	300
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345
	Stoney Creek ON L8J 0B4			Profit Centre:	1221
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:	358 REYNOLDS
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	JESSICA HALE

Bottle Order #: 756404

COC #: C#756404-01-01

Project Manager: Ronklin Gracian

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- [ ] Table 1 [X] Res/Park [X] Medium/Fine
- [ ] Table 2 [ ] Ind/Comm [ ] Coarse
- [X] Table 3 [ ] Agri/Other [ ] For RSC
- [ ] Table ___

Other Regulations
- [ ] CCME [ ] Sanitary Sewer Bylaw
- [ ] Reg 558 [ ] Storm Sewer Bylaw
- [ ] MISA Municipality ___
- [ ] PWQO
- [ ] Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? N

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ [ ]
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PHCs: BTEX/F1-F4	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 PAHs	pH	O.Reg 558 TCLP Leachate Preparation	O.Reg 558 TCLP Metals and Inorganics Package	O.Reg 558 TCLP Volatile Organics HS	O.Reg 558 TCLP Benzo(a)pyrene	PCB (Soil) VOCs	O.Reg 153 PHCs	# of Bottles	Comments
1		MW20-1-3	Jan 22, 2020	15:00	SOIL	N									X	X	4	
2		MW20-1-4		15:10													4	PLEASE HOLD
3		Grain size 1		13:50													1	
4		Grain size 2		14:50													1	
5		MW20-2-1		13:40						X					X	X	4	
6		MW20-2-4		14:10													4	PLEASE HOLD
7		MW20-3-2		11:40			X	X	X	X							4	
8		MW20-3-4		12:00													4	PLEASE HOLD
9		MW20-4-3		13:20			X	X	X	X							4	
10		MW20-4-4	↓	13:30	↓	↓											4	PLEASE HOLD

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	20/01/27	10Am	JUNE - COLENE CUEITA	2020/01/27	14:30	Ø

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	3/3/3 31012	Present		✓
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

BUREAU VERITAS

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:	300		756404
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345	COC #:	Project Manager:
	Stoney Creek ON L8J 0B4			Profit Centre:	1221	C#756404-03-01	Ronklin Gracian
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:	358 REYNOLDS		
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	Jessica Hale		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☒ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☒ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality ____	
☐ Table ___	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? N

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153 PHCs, BTEX/F1-F4	O.Reg 153 Metals & Inorganics Pkg	O.Reg 153 PAHs	pH	O.Reg 558 TCLP Leachate Preparation	O.Reg 558 TCLP Metals and Inorganics Package	O.Reg 558 TCLP Volatile Organics HS	O.Reg 558 TCLP Benzo(a)pyrene	PCB (Bulk)	Ignitability	# of Bottles	Comments
1		MW20-5-2	Jan 23/20	10:20	SOIL	N	X	X	X								4	
2		MW20-5-4	↓	10:40	↓	↓											4	Please Hold
3		QC-01	Jan 22, 2020	—	↓	↓	X	X	X								4	
4																		
5																		
6																		
7																		
8																		
9																		
10																		

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____
(call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	20/01/27	10AM	SEE PAGE 1			0			Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

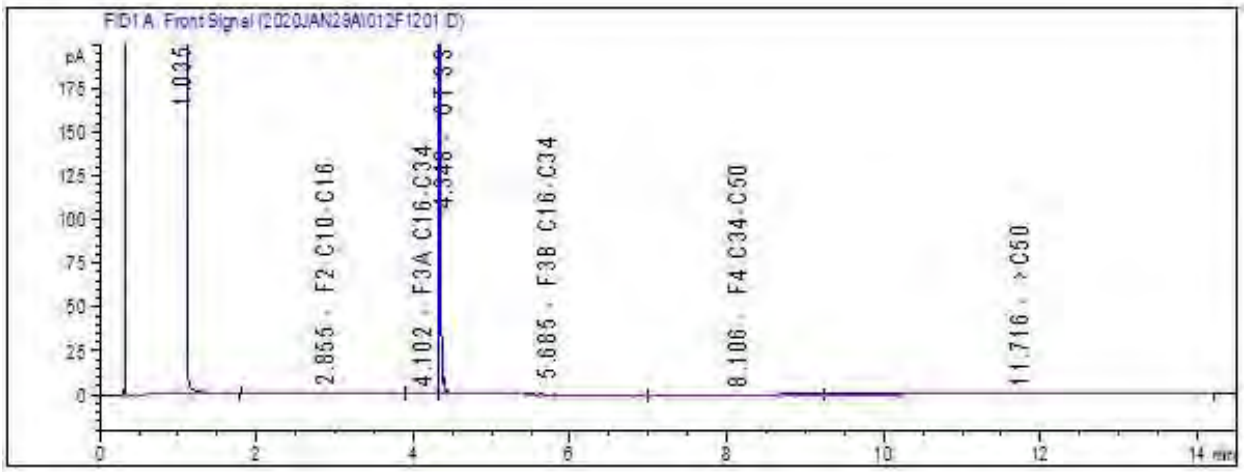
White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

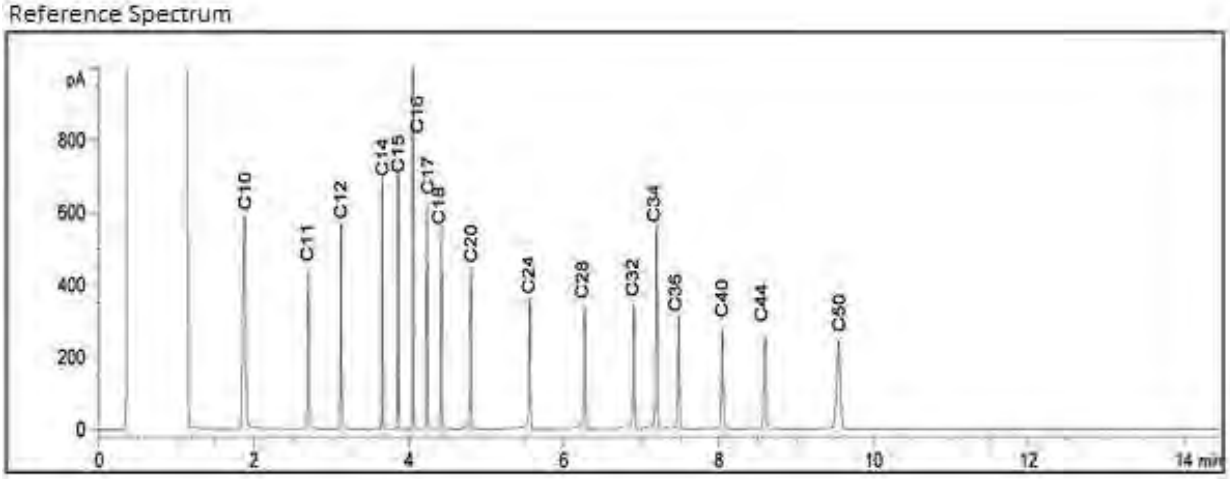
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF072

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: MW20-1-3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

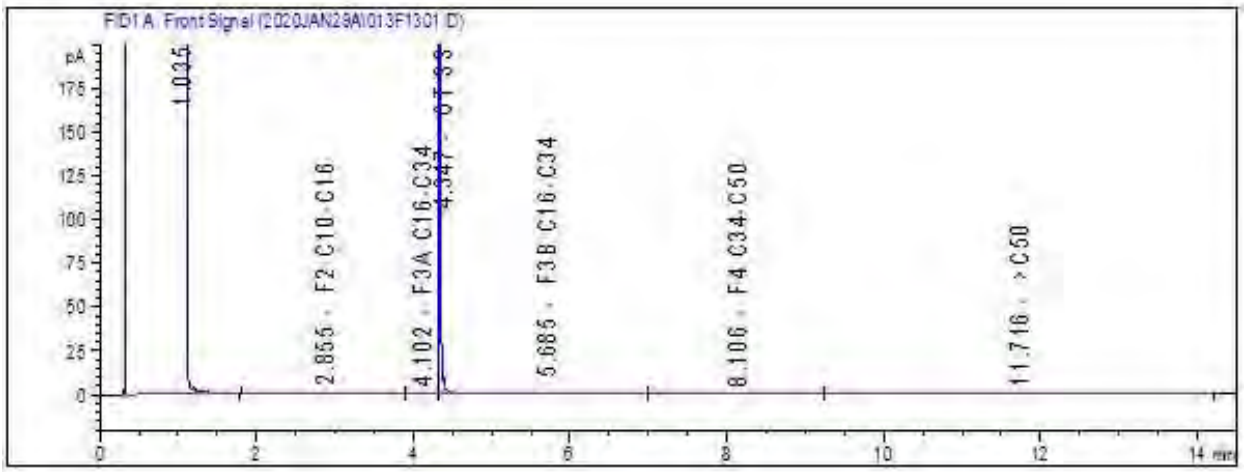
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

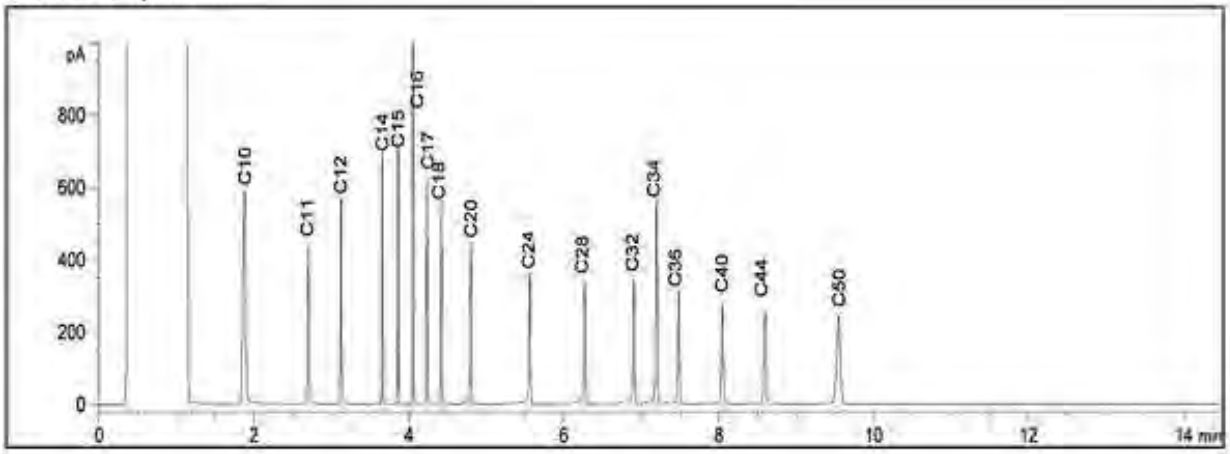
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF076

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: MW20-2-1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

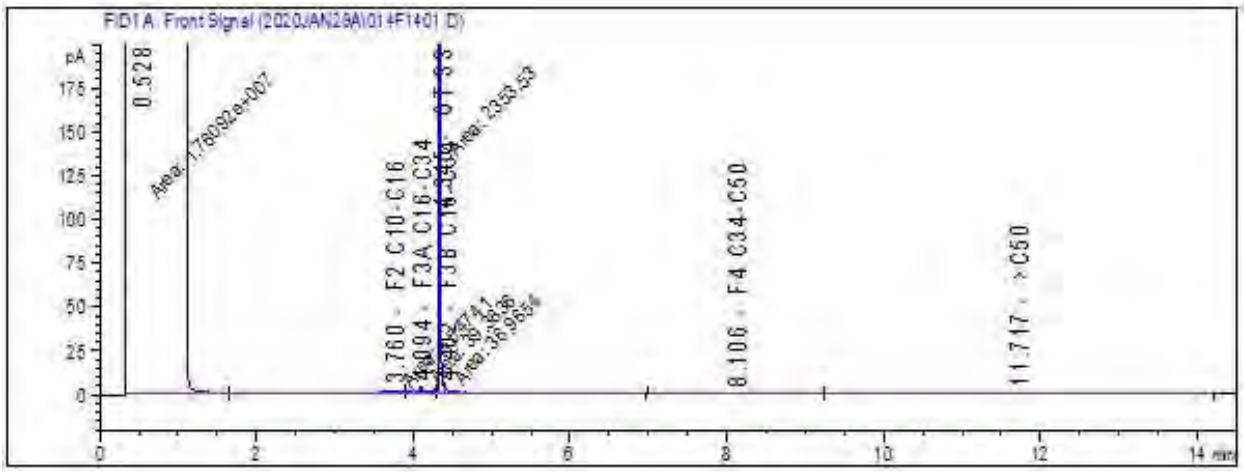
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

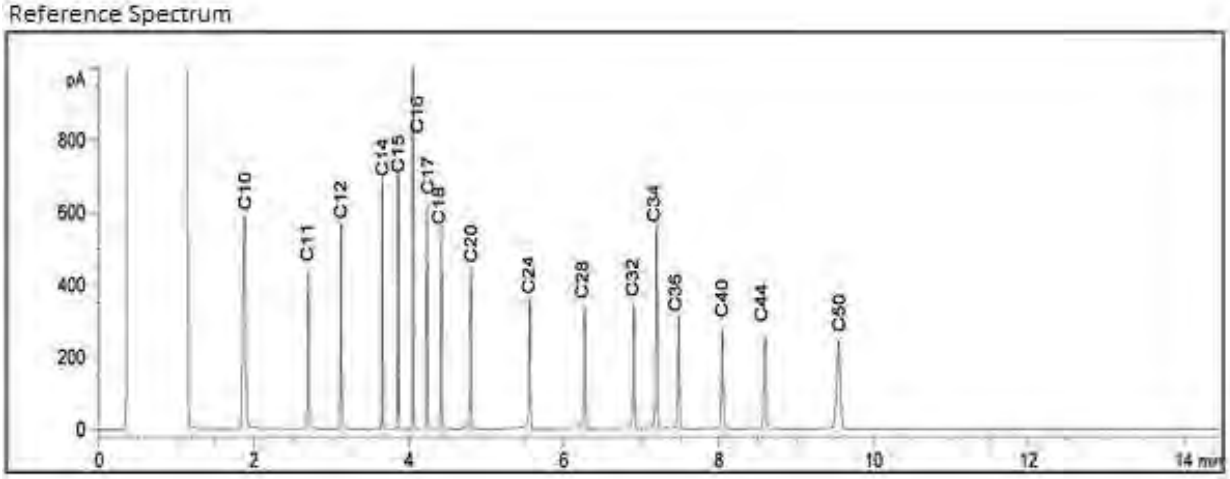
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF078

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: MW20-3-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

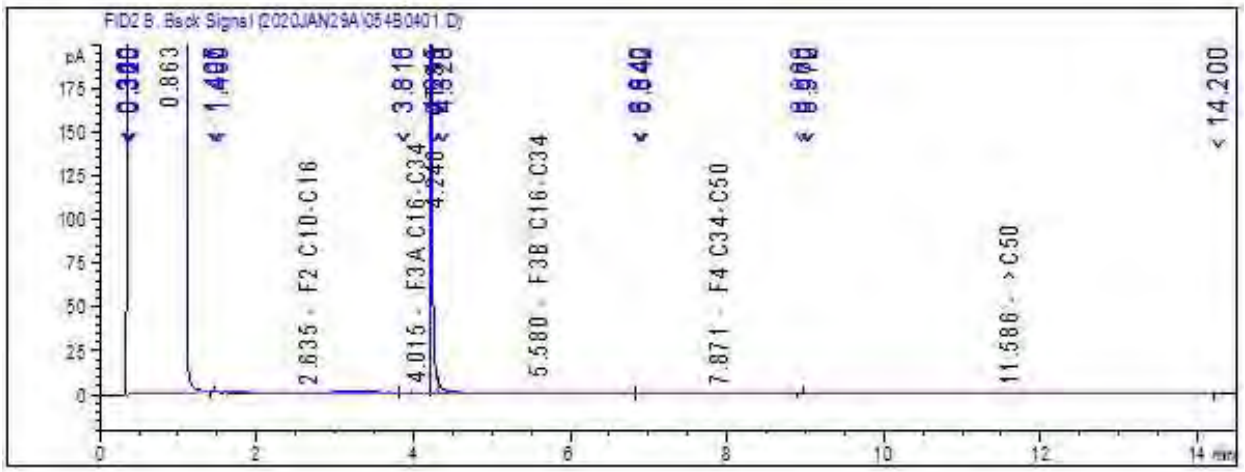
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

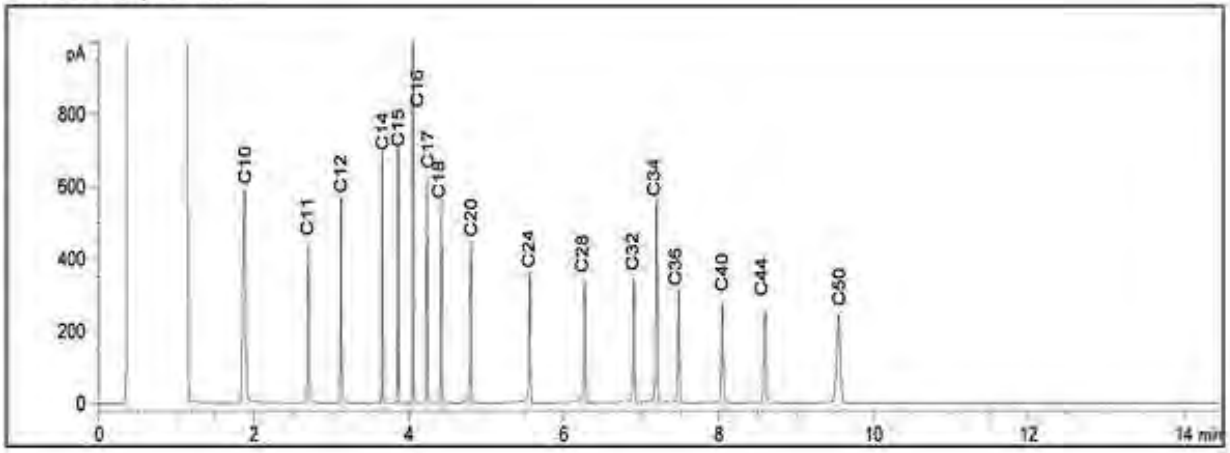
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF080

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: MW20-4-3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

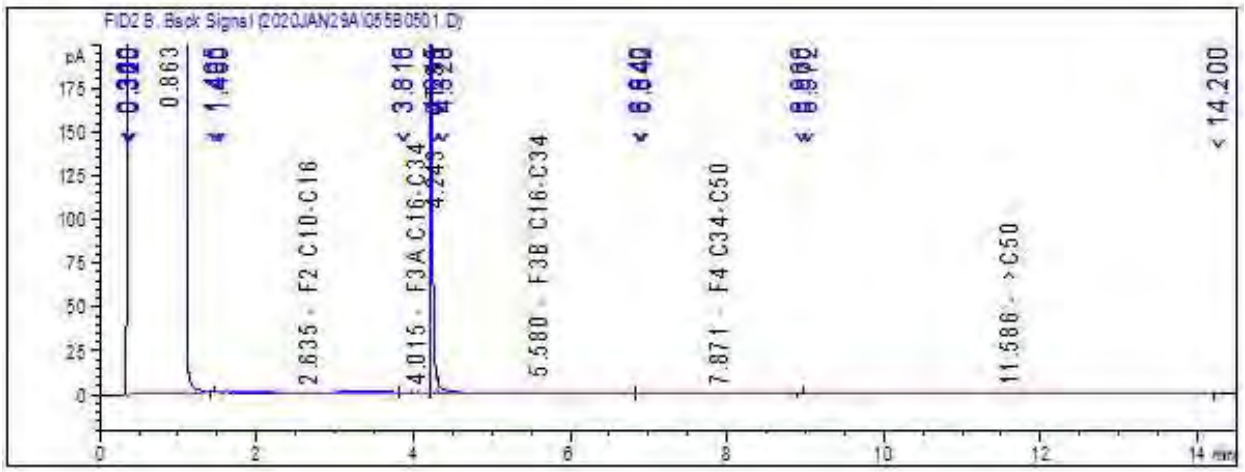
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

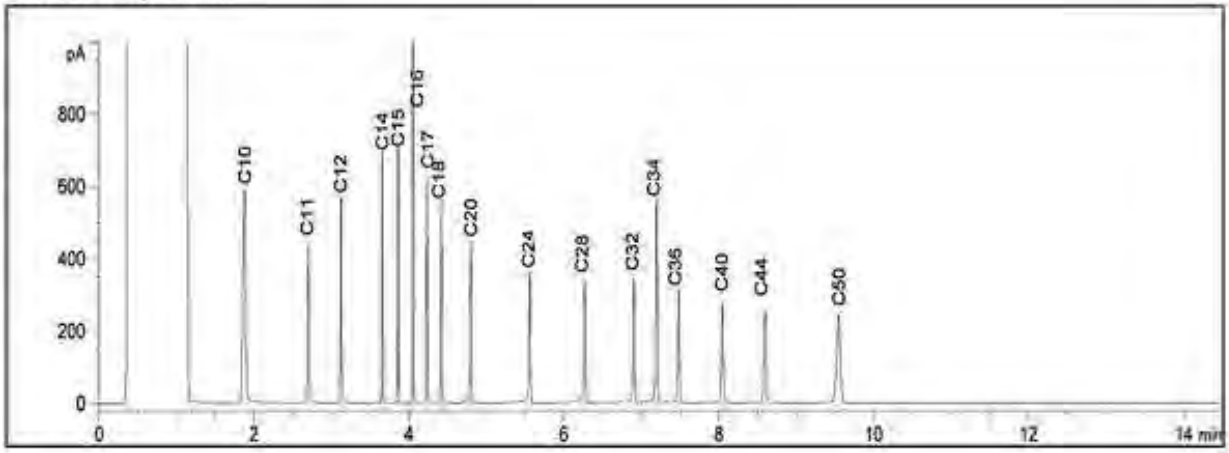
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF082

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: MW20-5-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

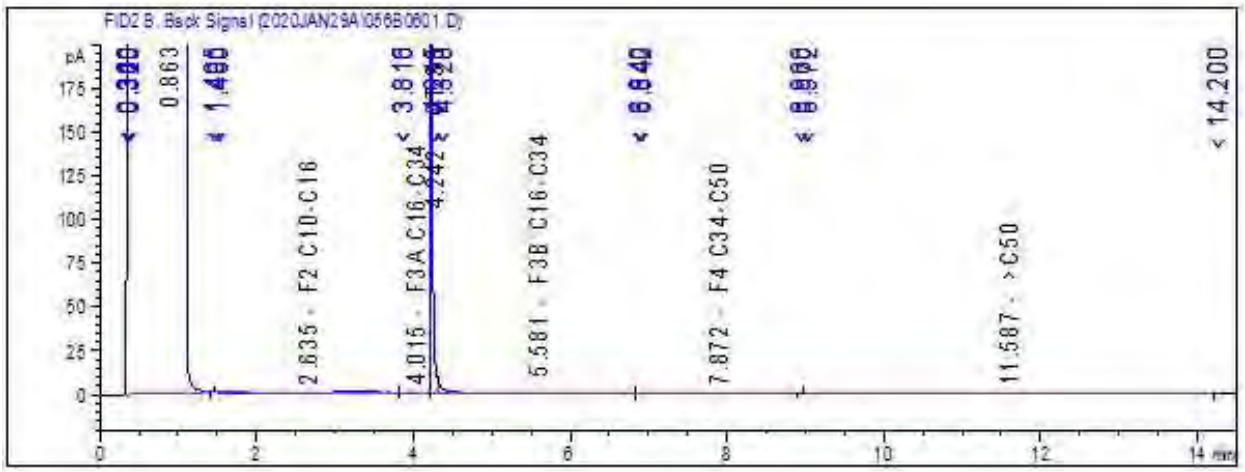
Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

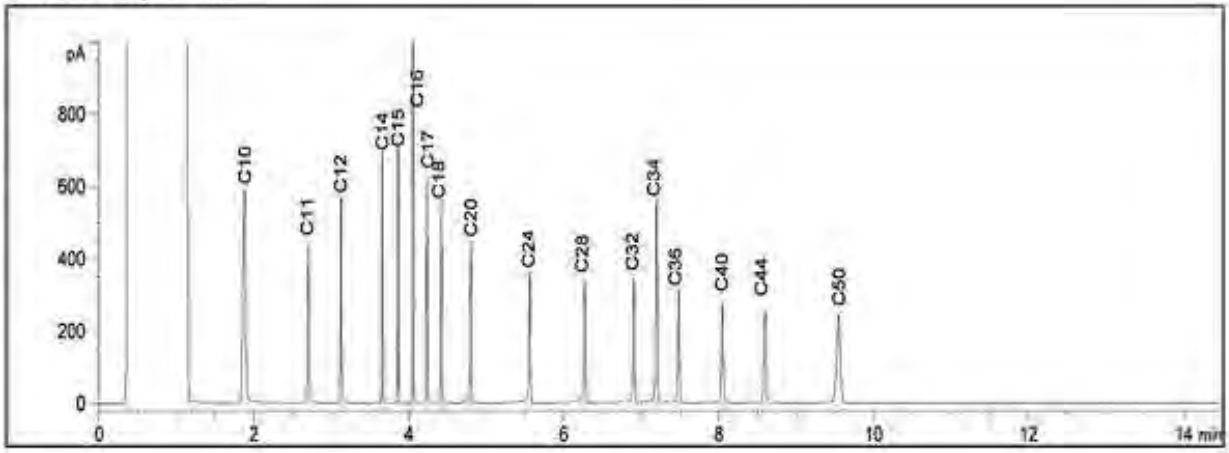
BV Labs Job #: C022735
Report Date: 2020/02/14
BV Labs Sample: LWF084

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS
Client ID: QC-01

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Reference Spectrum



TYPICAL PRODUCT CARBON NUMBER RANGES

Gasoline: **C6 - C12**	Diesel: **C10 - C24**	Jet Fuels: **C6 - C16**
Varsol: **C8 - C12**	Fuel Oils: **C6 - C32**	Creosote: **C10 - C26**
Kerosene: **C8 - C16**	Motor Oils: **C16 - C50**	Asphalt: **C18 - C50+**

Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: MC022735
Site Location: 122120345
Your C.O.C. #: C022735-M060-01-01

Attention: Ronklin Gracian

BUREAU VERITAS
CAMPOBELLO
6740 CAMPOBELLO ROAD
MISSISSAUGA, ON
CANADA L5N 2L8

Report Date: 2020/02/05
Report #: R2841531
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C006675
Received: 2020/01/31, 10:39

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Moisture	1	N/A	2020/02/05	AB SOP-00002	CCME PHC-CWS m
Particle Size by Sieve (Dry) (1)	1	N/A	2020/02/05	AB SOP-00022	Carter 2nd Ed 55.4 m
Grain Size Analysis Report	1	N/A	2020/02/05	AB SOP-00049	ASTM D7928-17 m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

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) Result indicates % of sample retained on the sieve.

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your Project #: MC022735
Site Location: 122120345
Your C.O.C. #: C022735-M060-01-01

Attention: Ronklin Gracian

BUREAU VERITAS
CAMPOBELLO
6740 CAMPOBELLO ROAD
MISSISSAUGA, ON
CANADA L5N 2L8

Report Date: 2020/02/05
Report #: R2841531
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C006675
Received: 2020/01/31, 10:39

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Geraldlyn Gouthro, Key Account Specialist
Email: geraldlyn.gouthro@bvlabs.com
Phone# (780)577-7173
==========
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

PARTICLE SIZE PACKAGE WITH GRAPH (SIEVE)

BV Labs ID		XH7235	
Sampling Date		2020/01/22 13:50	
COC Number		C022735-M060-01-01	
	UNITS	**GRAIN SIZE 1 (LWF074)**	**QC Batch**
Industrial			
See Attachment	N/A	ATTACHED	9754595
Physical Properties			
Attachment	%	ATTACHED	9755065

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

PHYSICAL TESTING (SOIL)

BV Labs ID		XH7235		
Sampling Date		2020/01/22 13:50		
COC Number		C022735-M060-01-01		
	UNITS	GRAIN SIZE 1 (LWF074)	RDL	QC Batch
Physical Properties				
Moisture	%	11	0.30	9754676
RDL = Reportable Detection Limit				

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: XH7235
Sample ID: GRAIN SIZE 1 (LWF074)
Matrix: Soil

Collected: 2020/01/22
Shipped: 2020/01/30
Received: 2020/01/31

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9754676	N/A	2020/02/05	Steven Shieh
Particle Size by Sieve (Dry)	SIEV	9755065	N/A	2020/02/05	Xiaoqing (Sharon) Wang
Grain Size Analysis Report	HY	9754595	N/A	2020/02/05	Muhammad Naeem

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

GENERAL COMMENTS

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

Package 1	3.7°C

Results relate only to the items tested.

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

QUALITY ASSURANCE REPORT

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

			Method Blank		RPD	
QC Batch	**Parameter**	**Date**	**Value**	**UNITS**	**Value (%)**	**QC Limits**
9754676	Moisture	2020/02/05	<0.30	%	0.58	20

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

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

Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

BV Labs Job #: C006675
Report Date: 2020/02/05

BUREAU VERITAS
Client Project #: MC022735
Site Location: 122120345
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Harry (Peng) Liang, Senior Analyst

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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Bureau Veritas Laboratories Calgary: 2021 - 41st Avenue N.E. T2E 6P2 Telephone (403) 291-3077 Fax (403) 291-9468

Your Project #: 122120345
Site Location: 358 REYNOLDS
Your C.O.C. #: 738683-08-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/12
Report #: R6072233
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C033874
Received: 2020/02/06, 15:25

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Hot Water Extractable Boron	2	2020/02/08	2020/02/10	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	2	2020/02/07	2020/02/10	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2020/02/10	2020/02/10	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2020/02/07	2020/02/11	CAM SOP-00436	EPA 3060/7199 m
Strong Acid Leachable Metals by ICPMS	1	2020/02/08	2020/02/10	CAM SOP-00447	EPA 6020B m
Strong Acid Leachable Metals by ICPMS	1	2020/02/08	2020/02/11	CAM SOP-00447	EPA 6020B m
Moisture	2	N/A	2020/02/07	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT	2	2020/02/10	2020/02/10	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2020/02/11	CAM SOP-00102	EPA 6010C

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.

Your Project #: 122120345
Site Location: 358 REYNOLDS
Your C.O.C. #: 738683-08-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/02/12
Report #: R6072233
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C033874
Received: 2020/02/06, 15:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
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BV Labs Job #: C033874
Report Date: 2020/02/12

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		LYO752	LYO753			LYO753		
Sampling Date		2020/01/23 10:10	2020/01/23 10:30			2020/01/23 10:30		
COC Number		738683-08-01	738683-08-01			738683-08-01		
	UNITS	MW20-5-1	MW20-5-3	RDL	QC Batch	MW20-5-3 Lab-Dup	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	1.2	2.6		6575721			
Inorganics								
Conductivity	mS/cm	0.26	0.63	0.002	6581160			
Moisture	%	9.8	21	1.0	6577976			
Available (CaCl2) pH	pH	7.79	7.89		6581453			
WAD Cyanide (Free)	ug/g	<0.01	<0.01	0.01	6579266			
Chromium (VI)	ug/g	<0.2	<0.2	0.2	6579378			
Metals								
Hot Water Ext. Boron (B)	ug/g	0.62	0.21	0.050	6580184	0.20	0.050	6580184
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	0.20	6580132	<0.20	0.20	6580132
Acid Extractable Arsenic (As)	ug/g	4.2	2.3	1.0	6580132	2.6	1.0	6580132
Acid Extractable Barium (Ba)	ug/g	35	18	0.50	6580132	20	0.50	6580132
Acid Extractable Beryllium (Be)	ug/g	0.28	0.23	0.20	6580132	0.26	0.20	6580132
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	5.0	6580132	<5.0	5.0	6580132
Acid Extractable Cadmium (Cd)	ug/g	0.10	<0.10	0.10	6580132	<0.10	0.10	6580132
Acid Extractable Chromium (Cr)	ug/g	11	8.9	1.0	6580132	8.9	1.0	6580132
Acid Extractable Cobalt (Co)	ug/g	3.5	4.0	0.10	6580132	4.0	0.10	6580132
Acid Extractable Copper (Cu)	ug/g	15	16	0.50	6580132	16	0.50	6580132
Acid Extractable Lead (Pb)	ug/g	20	6.0	1.0	6580132	6.1	1.0	6580132
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.68	0.50	6580132	0.51	0.50	6580132
Acid Extractable Nickel (Ni)	ug/g	7.2	7.4	0.50	6580132	7.5	0.50	6580132
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	0.50	6580132	<0.50	0.50	6580132
Acid Extractable Silver (Ag)	ug/g	<0.20	1.1	0.20	6580132	1.3	0.20	6580132
Acid Extractable Thallium (Tl)	ug/g	0.060	<0.050	0.050	6580132	<0.050	0.050	6580132
Acid Extractable Uranium (U)	ug/g	0.36	0.36	0.050	6580132	0.37	0.050	6580132
Acid Extractable Vanadium (V)	ug/g	24	14	5.0	6580132	13	5.0	6580132
Acid Extractable Zinc (Zn)	ug/g	30	20	5.0	6580132	19	5.0	6580132
Acid Extractable Mercury (Hg)	ug/g	0.086	2.4	0.050	6580132	2.7	0.050	6580132

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

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BV Labs Job #: C033874
Report Date: 2020/02/12

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: LYO752
Sample ID: MW20-5-1
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/02/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	6580184	2020/02/08	2020/02/10	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	6579266	2020/02/07	2020/02/10	Louise Harding
Conductivity	AT	6581160	2020/02/10	2020/02/10	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6579378	2020/02/07	2020/02/11	Rupinder Sihota
Strong Acid Leachable Metals by ICPMS	ICP/MS	6580132	2020/02/08	2020/02/10	Daniel Teclu
Moisture	BAL	6577976	N/A	2020/02/07	Kruti Jitesh Patel
pH CaCl2 EXTRACT	AT	6581453	2020/02/10	2020/02/10	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6575721	N/A	2020/02/11	Automated Statchk

BV Labs ID: LYO753
Sample ID: MW20-5-3
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/02/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	6580184	2020/02/08	2020/02/10	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	6579266	2020/02/07	2020/02/10	Louise Harding
Conductivity	AT	6581160	2020/02/10	2020/02/10	Kazzandra Adeva
Hexavalent Chromium in Soil by IC	IC/SPEC	6579378	2020/02/07	2020/02/11	Rupinder Sihota
Strong Acid Leachable Metals by ICPMS	ICP/MS	6580132	2020/02/08	2020/02/11	Daniel Teclu
Moisture	BAL	6577976	N/A	2020/02/07	Kruti Jitesh Patel
pH CaCl2 EXTRACT	AT	6581453	2020/02/10	2020/02/10	Kazzandra Adeva
Sodium Adsorption Ratio (SAR)	CALC/MET	6575721	N/A	2020/02/11	Automated Statchk

BV Labs ID: LYO753 Dup
Sample ID: MW20-5-3
Matrix: Soil

Collected: 2020/01/23
Shipped:
Received: 2020/02/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	6580184	2020/02/08	2020/02/10	Suban Kanapathippllai
Strong Acid Leachable Metals by ICPMS	ICP/MS	6580132	2020/02/08	2020/02/11	Daniel Teclu

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BV Labs Job #: C033874
Report Date: 2020/02/12

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

GENERAL COMMENTS

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

Package 1	2.3°C

Results relate only to the items tested.

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BV Labs Job #: C033874
Report Date: 2020/02/12

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6577976	GYA	RPD	Moisture	2020/02/07	1.1		%	20
6579266	LHA	Matrix Spike	WAD Cyanide (Free)	2020/02/10		92	%	75 - 125
6579266	LHA	Spiked Blank	WAD Cyanide (Free)	2020/02/10		96	%	80 - 120
6579266	LHA	Method Blank	WAD Cyanide (Free)	2020/02/10	<0.01		ug/g	
6579266	LHA	RPD	WAD Cyanide (Free)	2020/02/10	NC		%	35
6579378	RSU	Matrix Spike	Chromium (VI)	2020/02/11		32 (1)	%	70 - 130
6579378	RSU	Spiked Blank	Chromium (VI)	2020/02/11		89	%	80 - 120
6579378	RSU	Method Blank	Chromium (VI)	2020/02/11	<0.2		ug/g	
6579378	RSU	RPD	Chromium (VI)	2020/02/11	NC		%	35
6580132	DT1	Matrix Spike [LYO753-01]	Acid Extractable Antimony (Sb)	2020/02/11		105	%	75 - 125
			Acid Extractable Arsenic (As)	2020/02/11		110	%	75 - 125
			Acid Extractable Barium (Ba)	2020/02/11		117	%	75 - 125
			Acid Extractable Beryllium (Be)	2020/02/11		108	%	75 - 125
			Acid Extractable Boron (B)	2020/02/11		104	%	75 - 125
			Acid Extractable Cadmium (Cd)	2020/02/11		107	%	75 - 125
			Acid Extractable Chromium (Cr)	2020/02/11		107	%	75 - 125
			Acid Extractable Cobalt (Co)	2020/02/11		106	%	75 - 125
			Acid Extractable Copper (Cu)	2020/02/11		107	%	75 - 125
			Acid Extractable Lead (Pb)	2020/02/11		107	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2020/02/11		105	%	75 - 125
			Acid Extractable Nickel (Ni)	2020/02/11		108	%	75 - 125
			Acid Extractable Selenium (Se)	2020/02/11		111	%	75 - 125
			Acid Extractable Silver (Ag)	2020/02/11		113	%	75 - 125
			Acid Extractable Thallium (Tl)	2020/02/11		104	%	75 - 125
			Acid Extractable Uranium (U)	2020/02/11		106	%	75 - 125
			Acid Extractable Vanadium (V)	2020/02/11		108	%	75 - 125
			Acid Extractable Zinc (Zn)	2020/02/11		103	%	75 - 125
			Acid Extractable Mercury (Hg)	2020/02/11		139 (2)	%	75 - 125
6580132	DT1	Spiked Blank	Acid Extractable Antimony (Sb)	2020/02/10		102	%	80 - 120
			Acid Extractable Arsenic (As)	2020/02/10		100	%	80 - 120
			Acid Extractable Barium (Ba)	2020/02/10		107	%	80 - 120
			Acid Extractable Beryllium (Be)	2020/02/10		99	%	80 - 120
			Acid Extractable Boron (B)	2020/02/10		98	%	80 - 120
			Acid Extractable Cadmium (Cd)	2020/02/10		96	%	80 - 120
			Acid Extractable Chromium (Cr)	2020/02/10		100	%	80 - 120
			Acid Extractable Cobalt (Co)	2020/02/10		98	%	80 - 120
			Acid Extractable Copper (Cu)	2020/02/10		97	%	80 - 120
			Acid Extractable Lead (Pb)	2020/02/10		100	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2020/02/10		97	%	80 - 120
			Acid Extractable Nickel (Ni)	2020/02/10		98	%	80 - 120
			Acid Extractable Selenium (Se)	2020/02/10		98	%	80 - 120
			Acid Extractable Silver (Ag)	2020/02/10		95	%	80 - 120
			Acid Extractable Thallium (Tl)	2020/02/10		99	%	80 - 120
			Acid Extractable Uranium (U)	2020/02/10		98	%	80 - 120
			Acid Extractable Vanadium (V)	2020/02/10		97	%	80 - 120
			Acid Extractable Zinc (Zn)	2020/02/10		97	%	80 - 120
			Acid Extractable Mercury (Hg)	2020/02/10		89	%	80 - 120
6580132	DT1	Method Blank	Acid Extractable Antimony (Sb)	2020/02/10	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2020/02/10	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2020/02/10	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2020/02/10	<0.20		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Boron (B)	2020/02/10	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2020/02/10	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2020/02/10	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2020/02/10	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2020/02/10	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2020/02/10	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2020/02/10	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2020/02/10	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2020/02/10	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2020/02/10	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2020/02/10	<0.050		ug/g	
			Acid Extractable Uranium (U)	2020/02/10	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2020/02/10	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2020/02/10	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2020/02/10	<0.050		ug/g	
6580132	DT1	RPD [LYO753-01]	Acid Extractable Antimony (Sb)	2020/02/11	NC		%	30
			Acid Extractable Arsenic (As)	2020/02/11	13		%	30
			Acid Extractable Barium (Ba)	2020/02/11	9.7		%	30
			Acid Extractable Beryllium (Be)	2020/02/11	11		%	30
			Acid Extractable Boron (B)	2020/02/11	NC		%	30
			Acid Extractable Cadmium (Cd)	2020/02/11	NC		%	30
			Acid Extractable Chromium (Cr)	2020/02/11	0.60		%	30
			Acid Extractable Cobalt (Co)	2020/02/11	0.40		%	30
			Acid Extractable Copper (Cu)	2020/02/11	4.9		%	30
			Acid Extractable Lead (Pb)	2020/02/11	1.6		%	30
			Acid Extractable Molybdenum (Mo)	2020/02/11	28		%	30
			Acid Extractable Nickel (Ni)	2020/02/11	0.16		%	30
			Acid Extractable Selenium (Se)	2020/02/11	NC		%	30
			Acid Extractable Silver (Ag)	2020/02/11	9.6		%	30
			Acid Extractable Thallium (Tl)	2020/02/11	NC		%	30
			Acid Extractable Uranium (U)	2020/02/11	3.5		%	30
			Acid Extractable Vanadium (V)	2020/02/11	2.4		%	30
			Acid Extractable Zinc (Zn)	2020/02/11	6.2		%	30
			Acid Extractable Mercury (Hg)	2020/02/11	13		%	30
6580184	SUK	Matrix Spike [LYO753-01]	Hot Water Ext. Boron (B)	2020/02/10		114	%	75 - 125
6580184	SUK	Spiked Blank	Hot Water Ext. Boron (B)	2020/02/10		108	%	75 - 125
6580184	SUK	Method Blank	Hot Water Ext. Boron (B)	2020/02/10	<0.050		ug/g	
6580184	SUK	RPD [LYO753-01]	Hot Water Ext. Boron (B)	2020/02/10	3.7		%	40
6581160	KAD	Spiked Blank	Conductivity	2020/02/10		102	%	90 - 110
6581160	KAD	Method Blank	Conductivity	2020/02/10	<0.002		mS/cm	
6581160	KAD	RPD	Conductivity	2020/02/10	1.7		%	10
6581453	KAD	Spiked Blank	Available (CaCl2) pH	2020/02/10		100	%	97 - 103

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6581453	KAD	RPD	Available (CaCl2) pH	2020/02/10	1.7		%	N/A

N/A = Not Applicable

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

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

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

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

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

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

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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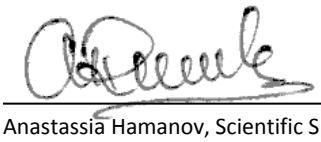
BV Labs Job #: C033874
Report Date: 2020/02/12

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	~~Dana Schreiber~~ Breanne McNeg	Task #:	~~206~~ 300		738683
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	~~122120182~~ 122120345	COC #:	Project Manager:
	Stoney Creek ON L8J 0B4			Profit Centre:	1221	C#738683-08-01	Augustyna Dobosz
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	905 381 3274 Fax: 905 385 3534	Site #:	~~358 Reynolds~~ 1147 Dundas Street, Woodstock,		
Email:	accounts.payable.invoices@stantec.com	Email:	breanne.mcnee@stantec.com	Sampled By:	JH		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☒ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality ____	
☐ Table ____	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? N

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	~~Dissolved Chromium by ICPMS~~	Chromium (VI)	~~O. Reg 153 Petroleum Hydrocarbons BTEX F1-F4~~	O. Reg 153 Metals + Inorganics PKG						# of Bottles	Comments
1		MW20-5-1	20/01/23	10:10	SOIL	N				X						4	
2		MW 20-5-3	20/01/23	10:30	SOIL	N				X						4	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

06-Feb-20 15:25
Augustyna Dobosz
C033874
GK1
ENV-1282

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
BMCNeg/Breanne McNeg	20/02/06	12PM		2020/02/06	15:25	0	Time Sensitive	Temperature (°C) on Recei 7.1 7.3	Custody Seal Present / Intact	Yes ✓	No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

Your Project #: 122120345
Your C.O.C. #: 764229-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/04/06
Report #: R6137024
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C086319
Received: 2020/04/03, 14:37

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	7	2020/04/06	2020/04/06	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Your C.O.C. #: 764229-01-01

Attention: Breanne McNea

Stantec Consulting Ltd
835 Paramount Drive, Suite 200
Stoney Creek, ON
CANADA L8J 0B4

Report Date: 2020/04/06
Report #: R6137024
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C086319
Received: 2020/04/03, 14:37

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C086319
Report Date: 2020/04/06

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID		MJS606	MJS608	MJS611	MJS613	MJS653	MJS655		
Sampling Date		2020/04/03 09:25	2020/04/03 09:35	2020/04/03 09:55	2020/04/03 10:05	2020/04/03 10:35	2020/04/03 10:45		
COC Number		764229-01-01	764229-01-01	764229-01-01	764229-01-01				
	UNITS	**MW20-6-2**	**MW20-6-4**	**MW20-7-2**	**MW20-7-4**	**MW20-8-2**	**MW20-8-4**	**RDL**	**QC Batch**
Metals									
Acid Extractable Aluminum (Al)	ug/g	3600	3200	3800	3600	3100	3100	50	6670070
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6670070
Acid Extractable Arsenic (As)	ug/g	2.0	1.8	2.8	1.7	1.4	2.2	1.0	6670070
Acid Extractable Barium (Ba)	ug/g	16	15	14	9.8	14	10	0.50	6670070
Acid Extractable Beryllium (Be)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6670070
Acid Extractable Bismuth (Bi)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	6670070
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5.0	6670070
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	6670070
Acid Extractable Calcium (Ca)	ug/g	2600	58000	2300	42000	1800	73000	50	6670070
Acid Extractable Chromium (Cr)	ug/g	7.6	4.9	8.1	6.1	5.4	5.4	1.0	6670070
Acid Extractable Cobalt (Co)	ug/g	2.7	2.9	3.2	2.9	2.4	2.8	0.10	6670070
Acid Extractable Copper (Cu)	ug/g	9.3	13	9.9	15	6.0	14	0.50	6670070
Acid Extractable Iron (Fe)	ug/g	11000	7700	15000	8800	7000	8500	50	6670070
Acid Extractable Lead (Pb)	ug/g	3.7	3.2	3.6	3.4	2.4	4.1	1.0	6670070
Acid Extractable Lithium (Li)	ug/g	3.6	5.8	3.3	5.7	3.6	5.2	1.0	6670070
Acid Extractable Magnesium (Mg)	ug/g	1000	2000	930	1900	880	2100	50	6670070
Acid Extractable Manganese (Mn)	ug/g	65	310	76	210	54	330	1.0	6670070
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6670070
Acid Extractable Nickel (Ni)	ug/g	6.4	5.6	5.8	5.7	5.1	5.1	0.50	6670070
Acid Extractable Phosphorus (P)	ug/g	730	310	710	530	520	440	50	6670070
Acid Extractable Potassium (K)	ug/g	450	650	500	660	430	630	200	6670070
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	6670070
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	6670070
Acid Extractable Sodium (Na)	ug/g	95	170	81	250	110	160	50	6670070
Acid Extractable Strontium (Sr)	ug/g	9.8	91	9.8	70	7.8	110	1.0	6670070
Acid Extractable Thallium (Tl)	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	6670070
Acid Extractable Tin (Sn)	ug/g	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.0	6670070
Acid Extractable Titanium (Ti)	ug/g	290	75	270	120	200	160	5.0	6670070
Acid Extractable Uranium (U)	ug/g	0.33	0.21	0.35	0.26	0.26	0.28	0.050	6670070
Acid Extractable Vanadium (V)	ug/g	16	8.6	21	11	10	12	5.0	6670070
Acid Extractable Zinc (Zn)	ug/g	12	15	13	15	9.3	14	5.0	6670070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C086319
Report Date: 2020/04/06

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

O.REG 153 ICPMS METALS (SOIL)

BV Labs ID		MJS606	MJS608	MJS611	MJS613	MJS653	MJS655		
Sampling Date		2020/04/03 09:25	2020/04/03 09:35	2020/04/03 09:55	2020/04/03 10:05	2020/04/03 10:35	2020/04/03 10:45		
COC Number		764229-01-01	764229-01-01	764229-01-01	764229-01-01				
	UNITS	MW20-6-2	MW20-6-4	MW20-7-2	MW20-7-4	MW20-8-2	MW20-8-4	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	6670070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 ICPMS METALS (SOIL)

BV Labs ID		MJS658		
Sampling Date		2020/04/03		
COC Number				
	UNITS	QC-02	RDL	QC Batch
Metals				
Acid Extractable Aluminum (Al)	ug/g	3100	50	6670070
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	6670070
Acid Extractable Arsenic (As)	ug/g	1.4	1.0	6670070
Acid Extractable Barium (Ba)	ug/g	9.6	0.50	6670070
Acid Extractable Beryllium (Be)	ug/g	<0.20	0.20	6670070
Acid Extractable Bismuth (Bi)	ug/g	<1.0	1.0	6670070
Acid Extractable Boron (B)	ug/g	<5.0	5.0	6670070
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	6670070
Acid Extractable Calcium (Ca)	ug/g	49000	50	6670070
Acid Extractable Chromium (Cr)	ug/g	5.4	1.0	6670070
Acid Extractable Cobalt (Co)	ug/g	2.8	0.10	6670070
Acid Extractable Copper (Cu)	ug/g	13	0.50	6670070
Acid Extractable Iron (Fe)	ug/g	8000	50	6670070
Acid Extractable Lead (Pb)	ug/g	3.2	1.0	6670070
Acid Extractable Lithium (Li)	ug/g	5.2	1.0	6670070
Acid Extractable Magnesium (Mg)	ug/g	1800	50	6670070
Acid Extractable Manganese (Mn)	ug/g	220	1.0	6670070
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	6670070
Acid Extractable Nickel (Ni)	ug/g	5.2	0.50	6670070
Acid Extractable Phosphorus (P)	ug/g	490	50	6670070
Acid Extractable Potassium (K)	ug/g	550	200	6670070
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	6670070
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	6670070
Acid Extractable Sodium (Na)	ug/g	210	50	6670070
Acid Extractable Strontium (Sr)	ug/g	80	1.0	6670070
Acid Extractable Thallium (Tl)	ug/g	<0.050	0.050	6670070
Acid Extractable Tin (Sn)	ug/g	<1.0	1.0	6670070
Acid Extractable Titanium (Ti)	ug/g	110	5.0	6670070
Acid Extractable Uranium (U)	ug/g	0.25	0.050	6670070
Acid Extractable Vanadium (V)	ug/g	9.8	5.0	6670070
Acid Extractable Zinc (Zn)	ug/g	15	5.0	6670070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 ICPMS METALS (SOIL)

BV Labs ID		MJS658		
Sampling Date		2020/04/03		
COC Number				
	UNITS	QC-02	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	6670070

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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TEST SUMMARY

BV Labs ID: MJS606 **Collected:** 2020/04/03
Sample ID: MW20-6-2 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS608 **Collected:** 2020/04/03
Sample ID: MW20-6-4 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS611 **Collected:** 2020/04/03
Sample ID: MW20-7-2 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS613 **Collected:** 2020/04/03
Sample ID: MW20-7-4 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS653 **Collected:** 2020/04/03
Sample ID: MW20-8-2 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS655 **Collected:** 2020/04/03
Sample ID: MW20-8-4 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

BV Labs ID: MJS658 **Collected:** 2020/04/03
Sample ID: QC-02 **Shipped:**
Matrix: Soil **Received:** 2020/04/03

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	6670070	2020/04/06	2020/04/06	Daniel Teclu

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GENERAL COMMENTS

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

Package 1	13.0°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6670070	DT1	Matrix Spike	Acid Extractable Aluminum (Al)	2020/04/06		NC	%	75 - 125
			Acid Extractable Antimony (Sb)	2020/04/06		98	%	75 - 125
			Acid Extractable Arsenic (As)	2020/04/06		102	%	75 - 125
			Acid Extractable Barium (Ba)	2020/04/06		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2020/04/06		106	%	75 - 125
			Acid Extractable Bismuth (Bi)	2020/04/06		98	%	75 - 125
			Acid Extractable Boron (B)	2020/04/06		108	%	75 - 125
			Acid Extractable Cadmium (Cd)	2020/04/06		100	%	75 - 125
			Acid Extractable Calcium (Ca)	2020/04/06		NC	%	75 - 125
			Acid Extractable Chromium (Cr)	2020/04/06		98	%	75 - 125
			Acid Extractable Cobalt (Co)	2020/04/06		99	%	75 - 125
			Acid Extractable Copper (Cu)	2020/04/06		NC	%	75 - 125
			Acid Extractable Iron (Fe)	2020/04/06		NC	%	75 - 125
			Acid Extractable Lead (Pb)	2020/04/06		NC	%	75 - 125
			Acid Extractable Lithium (Li)	2020/04/06		112	%	75 - 125
			Acid Extractable Magnesium (Mg)	2020/04/06		NC	%	75 - 125
			Acid Extractable Manganese (Mn)	2020/04/06		NC	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2020/04/06		101	%	75 - 125
			Acid Extractable Nickel (Ni)	2020/04/06		104	%	75 - 125
			Acid Extractable Phosphorus (P)	2020/04/06		NC	%	75 - 125
			Acid Extractable Potassium (K)	2020/04/06		NC	%	75 - 125
			Acid Extractable Selenium (Se)	2020/04/06		103	%	75 - 125
			Acid Extractable Silver (Ag)	2020/04/06		102	%	75 - 125
			Acid Extractable Sodium (Na)	2020/04/06		106	%	75 - 125
			Acid Extractable Strontium (Sr)	2020/04/06		95	%	75 - 125
			Acid Extractable Thallium (Tl)	2020/04/06		99	%	75 - 125
			Acid Extractable Tin (Sn)	2020/04/06		104	%	75 - 125
			Acid Extractable Titanium (Ti)	2020/04/06		NC	%	75 - 125
			Acid Extractable Uranium (U)	2020/04/06		101	%	75 - 125
			Acid Extractable Vanadium (V)	2020/04/06		97	%	75 - 125
			Acid Extractable Zinc (Zn)	2020/04/06		NC	%	75 - 125
			Acid Extractable Mercury (Hg)	2020/04/06		90	%	75 - 125
6670070	DT1	Spiked Blank	Acid Extractable Aluminum (Al)	2020/04/06		102	%	80 - 120
			Acid Extractable Antimony (Sb)	2020/04/06		103	%	80 - 120
			Acid Extractable Arsenic (As)	2020/04/06		108	%	80 - 120
			Acid Extractable Barium (Ba)	2020/04/06		104	%	80 - 120
			Acid Extractable Beryllium (Be)	2020/04/06		104	%	80 - 120
			Acid Extractable Bismuth (Bi)	2020/04/06		103	%	80 - 120
			Acid Extractable Boron (B)	2020/04/06		104	%	80 - 120
			Acid Extractable Cadmium (Cd)	2020/04/06		102	%	80 - 120
			Acid Extractable Calcium (Ca)	2020/04/06		111	%	80 - 120
			Acid Extractable Chromium (Cr)	2020/04/06		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2020/04/06		99	%	80 - 120
			Acid Extractable Copper (Cu)	2020/04/06		100	%	80 - 120
			Acid Extractable Iron (Fe)	2020/04/06		107	%	80 - 120
			Acid Extractable Lead (Pb)	2020/04/06		103	%	80 - 120
			Acid Extractable Lithium (Li)	2020/04/06		107	%	80 - 120
			Acid Extractable Magnesium (Mg)	2020/04/06		95	%	80 - 120
			Acid Extractable Manganese (Mn)	2020/04/06		103	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2020/04/06		102	%	80 - 120
			Acid Extractable Nickel (Ni)	2020/04/06		101	%	80 - 120
			Acid Extractable Phosphorus (P)	2020/04/06		101	%	80 - 120

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Potassium (K)	2020/04/06		117	%	80 - 120
			Acid Extractable Selenium (Se)	2020/04/06		102	%	80 - 120
			Acid Extractable Silver (Ag)	2020/04/06		101	%	80 - 120
			Acid Extractable Sodium (Na)	2020/04/06		102	%	80 - 120
			Acid Extractable Strontium (Sr)	2020/04/06		108	%	80 - 120
			Acid Extractable Thallium (Tl)	2020/04/06		103	%	80 - 120
			Acid Extractable Tin (Sn)	2020/04/06		100	%	80 - 120
			Acid Extractable Titanium (Ti)	2020/04/06		110	%	80 - 120
			Acid Extractable Uranium (U)	2020/04/06		102	%	80 - 120
			Acid Extractable Vanadium (V)	2020/04/06		100	%	80 - 120
			Acid Extractable Zinc (Zn)	2020/04/06		100	%	80 - 120
			Acid Extractable Mercury (Hg)	2020/04/06		97	%	80 - 120
6670070	DT1	Method Blank	Acid Extractable Aluminum (Al)	2020/04/06	<50		ug/g	
			Acid Extractable Antimony (Sb)	2020/04/06	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2020/04/06	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2020/04/06	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2020/04/06	<0.20		ug/g	
			Acid Extractable Bismuth (Bi)	2020/04/06	<1.0		ug/g	
			Acid Extractable Boron (B)	2020/04/06	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2020/04/06	<0.10		ug/g	
			Acid Extractable Calcium (Ca)	2020/04/06	<50		ug/g	
			Acid Extractable Chromium (Cr)	2020/04/06	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2020/04/06	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2020/04/06	<0.50		ug/g	
			Acid Extractable Iron (Fe)	2020/04/06	<50		ug/g	
			Acid Extractable Lead (Pb)	2020/04/06	<1.0		ug/g	
			Acid Extractable Lithium (Li)	2020/04/06	<1.0		ug/g	
			Acid Extractable Magnesium (Mg)	2020/04/06	<50		ug/g	
			Acid Extractable Manganese (Mn)	2020/04/06	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2020/04/06	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2020/04/06	<0.50		ug/g	
			Acid Extractable Phosphorus (P)	2020/04/06	<50		ug/g	
			Acid Extractable Potassium (K)	2020/04/06	<200		ug/g	
			Acid Extractable Selenium (Se)	2020/04/06	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2020/04/06	<0.20		ug/g	
			Acid Extractable Sodium (Na)	2020/04/06	<50		ug/g	
			Acid Extractable Strontium (Sr)	2020/04/06	<1.0		ug/g	
			Acid Extractable Thallium (Tl)	2020/04/06	<0.050		ug/g	
			Acid Extractable Tin (Sn)	2020/04/06	<1.0		ug/g	
			Acid Extractable Titanium (Ti)	2020/04/06	<5.0		ug/g	
			Acid Extractable Uranium (U)	2020/04/06	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2020/04/06	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2020/04/06	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2020/04/06	<0.050		ug/g	
6670070	DT1	RPD	Acid Extractable Antimony (Sb)	2020/04/06	4.8		%	30
			Acid Extractable Arsenic (As)	2020/04/06	11		%	30
			Acid Extractable Barium (Ba)	2020/04/06	0.50		%	30
			Acid Extractable Beryllium (Be)	2020/04/06	11		%	30
			Acid Extractable Boron (B)	2020/04/06	NC		%	30
			Acid Extractable Cadmium (Cd)	2020/04/06	3.6		%	30
			Acid Extractable Chromium (Cr)	2020/04/06	2.0		%	30
			Acid Extractable Cobalt (Co)	2020/04/06	3.0		%	30

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Copper (Cu)	2020/04/06	5.8		%	30
			Acid Extractable Lead (Pb)	2020/04/06	6.4		%	30
			Acid Extractable Molybdenum (Mo)	2020/04/06	NC		%	30
			Acid Extractable Nickel (Ni)	2020/04/06	2.7		%	30
			Acid Extractable Selenium (Se)	2020/04/06	NC		%	30
			Acid Extractable Silver (Ag)	2020/04/06	NC		%	30
			Acid Extractable Thallium (Tl)	2020/04/06	1.2		%	30
			Acid Extractable Uranium (U)	2020/04/06	0.19		%	30
			Acid Extractable Vanadium (V)	2020/04/06	1.5		%	30
			Acid Extractable Zinc (Zn)	2020/04/06	7.6		%	30
			Acid Extractable Mercury (Hg)	2020/04/06	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.

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

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

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BV Labs Job #: C086319
Report Date: 2020/04/06

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvlabs.com

STAN 03-Apr-20 14:37 Page 1 of 2

Ronklin Gracian

C086319

JCC ENV-1346

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:	300
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345
	Stoney Creek ON L8J 0B4			Profit Centre:	1221
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:	
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	JHALE

Bottle Order #: 784229

COC #: C#784229-01-01 Project Manager: Ronklin Gracian

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: [X]
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: Time Required:
Rush Confirmation Number: *(call lab for #)*

Regulation 153 (2011)	Other Regulations	Special Instructions
[ ] Table 1 [ ] Res/Park [ ] Medium/Fine	[ ] CCME [ ] Sanitary Sewer Bylaw	
[ ] Table 2 [ ] Ind/Comm [ ] Coarse	[ ] Reg 558 [ ] Storm Sewer Bylaw	
[X] Table 3 [ ] Agri/Other [ ] For RSC	[ ] MISA Municipality	
[ ] Table	[ ] PWQO	
	[ ] Other	

Include Criteria on Certificate of Analysis (Y/N)? N

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 (CPMS Metals (Full Scan)	Low Volume / Recovery Sample	# of Bottles	Comments
1		MW20-6-1	20/04/03	0920	SO	NA	X		1	ON HOLD.
2		MW20-6-2		0925			X		1	
3		MW20-6-3		0930			X		1	ON HOLD
4		MW20-6-4		0935			X		1	
5		MW20-6-5		0940			X		1	ON HOLD.
6		MW20-7-1		0950			X		1	ON HOLD
7		MW20-7-2		0955			X		1	
8		MW20-7-3		1000			X		1	ON HOLD.
9		MW20-7-4		1005			X	X	1	
10		MW20-7-5		1010			X		1	ON HOLD.

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
JESSICA HALE	20/04/03	1435	[illegible]	20/04/03	1435	0

Laboratory Use Only

Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
	13 14 12 16	Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvlabs.com

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#50575 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Breanne McNea	Task #:	300		764229
Address:	835 Paramount Drive, Suite 200	Address:		Project #:	122120345		
	Stoney Creek ON L8J 0B4			Profit Centre:	1221	COC #:	Project Manager:
Phone:	(905) 381-3211 Fax: (905) 631-8960	Phone:	(905) 381-3274 Fax: (905) 385-3534	Site #:		C#764229-03-01	Ronklin Gracian
Email:	SAPinvoices@Stantec.com	Email:	Breanne.McNea@stantec.com	Sampled By:	JHALE		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☑ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Other ___

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? N

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☑
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 ICPMS Metals (Full Scan)	Low volume / Low recovery sample	# of Bottles	Comments
1		MW20-8-1	20/04/03	1030	SO	NA	X		1	ON HOLD
2		MW20-8-2		1035			X		1	
3		MW20-8-3		1040			X		1	ON HOLD
4		MW20-8-4		1045			X		1	
5		MW20-8-5		1050			X		1	ON HOLD.
6		QC-01		—			X		1	ON HOLD.
7		QC-02		—			X	X	1	
8										
9										
10										

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
JHALE TESSICA HALE	20/04/03	1435	See page 1			Ø

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes	No
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

Your Project #: 122120345
Site Location: REYNOLDS STREET
Your C.O.C. #: 153041

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/22
Report #: R6380000
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R6627
Received: 2020/10/21, 12:20

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	3	2020/10/22	2020/10/22	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Site Location: REYNOLDS STREET
Your C.O.C. #: 153041

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/22
Report #: R6380000
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R6627
Received: 2020/10/21, 12:20

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		NYG276	NYG277	NYG278		
Sampling Date		2020/10/21 10:10	2020/10/21 10:25	2020/10/21 10:50		
COC Number		153041	153041	153041		
	UNITS	**TP20-01-01**	**TP20-01-02**	**TP20-02-01**	**RDL**	**QC Batch**
Metals						
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	0.050	7014174

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: NYG276
Sample ID: TP20-01-01
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

BV Labs ID: NYG277
Sample ID: TP20-01-02
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

BV Labs ID: NYG278
Sample ID: TP20-02-01
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

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BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

GENERAL COMMENTS

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

Package 1	2.3°C

Results relate only to the items tested.

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BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7014174	VIV	Matrix Spike	Acid Extractable Mercury (Hg)	2020/10/22		85	%	75 - 125
7014174	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2020/10/22		95	%	80 - 120
7014174	VIV	Method Blank	Acid Extractable Mercury (Hg)	2020/10/22	<0.050		ug/g	
7014174	VIV	RPD	Acid Extractable Mercury (Hg)	2020/10/22	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.

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).

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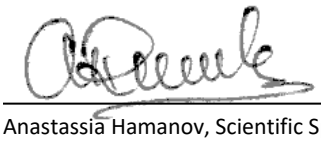
BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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BUREAU VERITAS

RUSH!

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 153041

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: STANTEC	Company Name: STANTEC	Quotation #:	☐ Regular TAT (5-7 days) Most analyses
Contact Name: ACCOUNTS PAYABLE	Contact Name: SEAN BROWN	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address:	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: 905 415 6342 Fax:	Site Location: REYNOLDS STREET	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email: SAPINVOICES@STANTEC.COM	Email: SEAN.BROWN@STANTEC.COM	Site #:	Date Required: 24 HOUR
		Site Location Province: ONTARIO	Rush Confirmation #: REGN1021-01
		Sampled By: JESSICA HALE	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY

Regulation 153

☒ Table 1 ☐ Res/Park ☐ Med/ Fine
☐ Table 2 ☒ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/ Other
☐ Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations

☐ CCME ☐ Sanitary Sewer Bylaw
☐ MISA ☐ Storm Sewer Bylaw
☐ PWQO Region ____
☐ Other (Specify)
☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
☐ REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL Y / N (Present / Intact)

COOLER TEMPERATURES: 1 | 3 | 3

COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 ~~METALS~~ MERCURY (Hg; CrVI, ICPMS Analysis)	HOLD- DO NOT ANALYZE
1	TP20-01-01	2020/10/21	1010	SO	1							X	
2	TP20-01-02	↓	1025	↓	1							X	
3	TP20-02-01	↓	1050	↓	1							X	
4													
5													
6													
7													
8													
9													
10													

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
JESSICA HALE	2020/10/21	1215		2020/10/21	1220

21-Oct-20 12:20
Ronklin Gracian
C0R6627

DSG ENV-1149

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and accept. and conditions.

COC-1004 (06/19)

White: BV Labs - Yellow: Client

Your Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Your C.O.C. #: 153697

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/04/20
Report #: R6602147
Version: 2 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C198583
Received: 2021/04/14, 15:27

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	1	N/A	2021/04/17	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2021/04/16	2021/04/19	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	1	N/A	2021/04/18		EPA 8260C m
Free (WAD) Cyanide	1	2021/04/16	2021/04/20	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2021/04/19	2021/04/19	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2021/04/17	2021/04/19	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2021/04/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	2	2021/04/16	2021/04/17	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	5	2021/04/16	2021/04/19	CAM SOP-00447	EPA 6020B m
Moisture	2	N/A	2021/04/15	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	1	2021/04/16	2021/04/17	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	1	2021/04/19	2021/04/19	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2021/04/19	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2021/04/17	CAM SOP-00230	EPA 8260C m

Remarks:

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

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
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dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752
==========
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

O.REG 153 METALS & INORGANICS PKG (SOIL)

BV Labs ID		PHX103			PHX103		
Sampling Date		2021/04/14 13:27			2021/04/14 13:27		
COC Number		153697			153697		
	UNITS	**TP21-3-1**	**RDL**	**QC Batch**	**TP21-3-1 Lab-Dup**	**RDL**	**QC Batch**
Calculated Parameters							
Sodium Adsorption Ratio	N/A	14		7299269			
Inorganics							
Conductivity	mS/cm	0.88	0.002	7305303	0.87	0.002	7305303
Available (CaCl2) pH	pH	7.64		7305448			
WAD Cyanide (Free)	ug/g	<0.01	0.01	7304056			
Chromium (VI)	ug/g	0.22	0.18	7304570			
Metals							
Hot Water Ext. Boron (B)	ug/g	0.17	0.050	7303099	0.16	0.050	7303099
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	7303122	<0.20	0.20	7303122
Acid Extractable Arsenic (As)	ug/g	3.6	1.0	7303122	3.6	1.0	7303122
Acid Extractable Barium (Ba)	ug/g	24	0.50	7303122	22	0.50	7303122
Acid Extractable Beryllium (Be)	ug/g	0.35	0.20	7303122	0.32	0.20	7303122
Acid Extractable Boron (B)	ug/g	<5.0	5.0	7303122	<5.0	5.0	7303122
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	7303122	<0.10	0.10	7303122
Acid Extractable Chromium (Cr)	ug/g	12	1.0	7303122	12	1.0	7303122
Acid Extractable Cobalt (Co)	ug/g	4.2	0.10	7303122	4.0	0.10	7303122
Acid Extractable Copper (Cu)	ug/g	17	0.50	7303122	17	0.50	7303122
Acid Extractable Lead (Pb)	ug/g	7.5	1.0	7303122	7.4	1.0	7303122
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	7303122	<0.50	0.50	7303122
Acid Extractable Nickel (Ni)	ug/g	9.3	0.50	7303122	9.0	0.50	7303122
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	7303122	<0.50	0.50	7303122
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	7303122	<0.20	0.20	7303122
Acid Extractable Thallium (Tl)	ug/g	<0.050	0.050	7303122	<0.050	0.050	7303122
Acid Extractable Uranium (U)	ug/g	0.35	0.050	7303122	0.32	0.050	7303122
Acid Extractable Vanadium (V)	ug/g	27	5.0	7303122	25	5.0	7303122
Acid Extractable Zinc (Zn)	ug/g	23	5.0	7303122	22	5.0	7303122
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	7303122	<0.050	0.050	7303122

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

O.REG 153 PAHS (SOIL)

BV Labs ID		PHX103		
Sampling Date		2021/04/14 13:27		
COC Number		153697		
	UNITS	**TP21-3-1**	**RDL**	**QC Batch**
Calculated Parameters				
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	7299213
Polyaromatic Hydrocarbons				
Acenaphthene	ug/g	<0.0050	0.0050	7303149
Acenaphthylene	ug/g	<0.0050	0.0050	7303149
Anthracene	ug/g	<0.0050	0.0050	7303149
Benzo(a)anthracene	ug/g	<0.0050	0.0050	7303149
Benzo(a)pyrene	ug/g	<0.0050	0.0050	7303149
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	7303149
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	7303149
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	7303149
Chrysene	ug/g	<0.0050	0.0050	7303149
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	7303149
Fluoranthene	ug/g	0.0061	0.0050	7303149
Fluorene	ug/g	<0.0050	0.0050	7303149
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	7303149
1-Methylnaphthalene	ug/g	<0.0050	0.0050	7303149
2-Methylnaphthalene	ug/g	<0.0050	0.0050	7303149
Naphthalene	ug/g	<0.0050	0.0050	7303149
Phenanthrene	ug/g	<0.0050	0.0050	7303149
Pyrene	ug/g	0.0064	0.0050	7303149
Surrogate Recovery (%)				
D10-Anthracene	%	110		7303149
D14-Terphenyl (FS)	%	102		7303149
D8-Acenaphthylene	%	89		7303149

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

BV Labs ID		PHX102		
Sampling Date		2021/04/14 13:10		
COC Number		153697		
	UNITS	**TP21-2-2**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	21	1.0	7300594
BTEX & F1 Hydrocarbons				
Benzene	ug/g	<0.020	0.020	7302810
Toluene	ug/g	<0.020	0.020	7302810
Ethylbenzene	ug/g	<0.020	0.020	7302810
o-Xylene	ug/g	<0.020	0.020	7302810
p+m-Xylene	ug/g	<0.040	0.040	7302810
Total Xylenes	ug/g	<0.040	0.040	7302810
F1 (C6-C10)	ug/g	<10	10	7302810
F1 (C6-C10) - BTEX	ug/g	<10	10	7302810
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	2200	10	7303227
F3 (C16-C34 Hydrocarbons)	ug/g	1500	50	7303227
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7303227
Reached Baseline at C50	ug/g	Yes		7303227
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	93		7302810
4-Bromofluorobenzene	%	107		7302810
D10-o-Xylene	%	73		7302810
D4-1,2-Dichloroethane	%	90		7302810
o-Terphenyl	%	99		7303227

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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

BV Labs ID		PHX103			PHX103		
Sampling Date		2021/04/14 13:27			2021/04/14 13:27		
COC Number		153697			153697		
	UNITS	**TP21-3-1**	**RDL**	**QC Batch**	**TP21-3-1 Lab-Dup**	**RDL**	**QC Batch**
Inorganics							
Moisture	%	16	1.0	7300594	17	1.0	7300594
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	7299188			
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.50	0.50	7302284			
Benzene	ug/g	<0.020	0.020	7302284			
Bromodichloromethane	ug/g	<0.050	0.050	7302284			
Bromoform	ug/g	<0.050	0.050	7302284			
Bromomethane	ug/g	<0.050	0.050	7302284			
Carbon Tetrachloride	ug/g	<0.050	0.050	7302284			
Chlorobenzene	ug/g	<0.050	0.050	7302284			
Chloroform	ug/g	<0.050	0.050	7302284			
Dibromochloromethane	ug/g	<0.050	0.050	7302284			
1,2-Dichlorobenzene	ug/g	<0.050	0.050	7302284			
1,3-Dichlorobenzene	ug/g	<0.050	0.050	7302284			
1,4-Dichlorobenzene	ug/g	<0.050	0.050	7302284			
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	0.050	7302284			
1,1-Dichloroethane	ug/g	<0.050	0.050	7302284			
1,2-Dichloroethane	ug/g	<0.050	0.050	7302284			
1,1-Dichloroethylene	ug/g	<0.050	0.050	7302284			
cis-1,2-Dichloroethylene	ug/g	<0.050	0.050	7302284			
trans-1,2-Dichloroethylene	ug/g	<0.050	0.050	7302284			
1,2-Dichloropropane	ug/g	<0.050	0.050	7302284			
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	7302284			
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	7302284			
Ethylbenzene	ug/g	<0.020	0.020	7302284			
Ethylene Dibromide	ug/g	<0.050	0.050	7302284			
Hexane	ug/g	<0.050	0.050	7302284			
Methylene Chloride(Dichloromethane)	ug/g	<0.050	0.050	7302284			
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	0.50	7302284			

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

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

BV Labs ID		PHX103			PHX103		
Sampling Date		2021/04/14 13:27			2021/04/14 13:27		
COC Number		153697			153697		
	UNITS	**TP21-3-1**	**RDL**	**QC Batch**	**TP21-3-1 Lab-Dup**	**RDL**	**QC Batch**
Methyl Isobutyl Ketone	ug/g	<0.50	0.50	7302284			
Methyl t-butyl ether (MTBE)	ug/g	<0.050	0.050	7302284			
Styrene	ug/g	<0.050	0.050	7302284			
1,1,1,2-Tetrachloroethane	ug/g	<0.050	0.050	7302284			
1,1,2,2-Tetrachloroethane	ug/g	<0.050	0.050	7302284			
Tetrachloroethylene	ug/g	<0.050	0.050	7302284			
Toluene	ug/g	<0.020	0.020	7302284			
1,1,1-Trichloroethane	ug/g	<0.050	0.050	7302284			
1,1,2-Trichloroethane	ug/g	<0.050	0.050	7302284			
Trichloroethylene	ug/g	<0.050	0.050	7302284			
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	0.050	7302284			
Vinyl Chloride	ug/g	<0.020	0.020	7302284			
p+m-Xylene	ug/g	<0.020	0.020	7302284			
o-Xylene	ug/g	<0.020	0.020	7302284			
Total Xylenes	ug/g	<0.020	0.020	7302284			
F1 (C6-C10)	ug/g	<10	10	7302284			
F1 (C6-C10) - BTEX	ug/g	<10	10	7302284			
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	7303227			
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	7303227			
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7303227			
Reached Baseline at C50	ug/g	Yes		7303227			
Surrogate Recovery (%)							
o-Terphenyl	%	99		7303227			
4-Bromofluorobenzene	%	97		7302284			
D10-o-Xylene	%	108		7302284			
D4-1,2-Dichloroethane	%	102		7302284			
D8-Toluene	%	97		7302284			

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

BV Labs Job #: C198583
Report Date: 2021/04/20

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Sampler Initials: SD

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		PHX099	PHX100	PHX101	PHX102		
Sampling Date		2021/04/14 12:17	2021/04/14 12:30	2021/04/14 12:48	2021/04/14 13:10		
COC Number		153697	153697	153697	153697		
	UNITS	**TP21-1-1**	**TP21-1-2**	**TP21-2-1**	**TP21-2-2**	**RDL**	**QC Batch**
Metals							
Acid Extractable Mercury (Hg)	ug/g	0.11	<0.050	0.81	0.13	0.050	7303122

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C198583
Report Date: 2021/04/20

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PHX099
Sample ID: TP21-1-1
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri

BV Labs ID: PHX100
Sample ID: TP21-1-2
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri

BV Labs ID: PHX101
Sample ID: TP21-2-1
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri

BV Labs ID: PHX102
Sample ID: TP21-2-2
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7302810	N/A	2021/04/17	Haibin Wu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7303227	2021/04/16	2021/04/17	Biljana Lazovic
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri
Moisture	BAL	7300594	N/A	2021/04/15	Gurpreet Kaur (ONT)

BV Labs ID: PHX103
Sample ID: TP21-3-1
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	7299213	N/A	2021/04/17	Automated Statchk
Hot Water Extractable Boron	ICP	7303099	2021/04/16	2021/04/19	Archana Patel
1,3-Dichloropropene Sum	CALC	7299188	N/A	2021/04/18	Automated Statchk
Free (WAD) Cyanide	TECH	7304056	2021/04/16	2021/04/20	Louise Harding
Conductivity	AT	7305303	2021/04/19	2021/04/19	Tarunpreet Kaur
Hexavalent Chromium in Soil by IC	IC/SPEC	7304570	2021/04/17	2021/04/19	Violeta Porcila
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7303227	2021/04/16	2021/04/17	Biljana Lazovic
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri
Moisture	BAL	7300594	N/A	2021/04/15	Gurpreet Kaur (ONT)
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	7303149	2021/04/16	2021/04/17	Mitesh Raj
pH CaCl2 EXTRACT	AT	7305448	2021/04/19	2021/04/19	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	7299269	N/A	2021/04/19	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	7302284	N/A	2021/04/17	Rebecca McClean

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BV Labs Job #: C198583
Report Date: 2021/04/20

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PHX103 Dup
Sample ID: TP21-3-1
Matrix: Soil

Collected: 2021/04/14
Shipped:
Received: 2021/04/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	7303099	2021/04/16	2021/04/19	Archana Patel
Conductivity	AT	7305303	2021/04/19	2021/04/19	Tarunpreet Kaur
Acid Extractable Metals by ICPMS	ICP/MS	7303122	2021/04/16	2021/04/19	Viviana Canzonieri
Moisture	BAL	7300594	N/A	2021/04/15	Gurpreet Kaur (ONT)

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C198583
Report Date: 2021/04/20

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Sampler Initials: SD

GENERAL COMMENTS

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

Package 1	10.0°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7300594	KJP	RPD [PHX103-02]	Moisture	2021/04/15	7.4		%	20
7302284	RSC	Matrix Spike	4-Bromofluorobenzene	2021/04/17		111	%	60 - 140
			D10-o-Xylene	2021/04/17		104	%	60 - 130
			D4-1,2-Dichloroethane	2021/04/17		99	%	60 - 140
			D8-Toluene	2021/04/17		98	%	60 - 140
			Acetone (2-Propanone)	2021/04/17		91	%	60 - 140
			Benzene	2021/04/17		95	%	60 - 140
			Bromodichloromethane	2021/04/17		110	%	60 - 140
			Bromoform	2021/04/17		112	%	60 - 140
			Bromomethane	2021/04/17		108	%	60 - 140
			Carbon Tetrachloride	2021/04/17		116	%	60 - 140
			Chlorobenzene	2021/04/17		104	%	60 - 140
			Chloroform	2021/04/17		104	%	60 - 140
			Dibromochloromethane	2021/04/17		106	%	60 - 140
			1,2-Dichlorobenzene	2021/04/17		105	%	60 - 140
			1,3-Dichlorobenzene	2021/04/17		109	%	60 - 140
			1,4-Dichlorobenzene	2021/04/17		105	%	60 - 140
			Dichlorodifluoromethane (FREON 12)	2021/04/17		98	%	60 - 140
			1,1-Dichloroethane	2021/04/17		94	%	60 - 140
			1,2-Dichloroethane	2021/04/17		100	%	60 - 140
			1,1-Dichloroethylene	2021/04/17		100	%	60 - 140
			cis-1,2-Dichloroethylene	2021/04/17		107	%	60 - 140
			trans-1,2-Dichloroethylene	2021/04/17		107	%	60 - 140
			1,2-Dichloropropane	2021/04/17		90	%	60 - 140
			cis-1,3-Dichloropropene	2021/04/17		98	%	60 - 140
			trans-1,3-Dichloropropene	2021/04/17		101	%	60 - 140
			Ethylbenzene	2021/04/17		96	%	60 - 140
			Ethylene Dibromide	2021/04/17		99	%	60 - 140
			Hexane	2021/04/17		93	%	60 - 140
			Methylene Chloride(Dichloromethane)	2021/04/17		102	%	60 - 140
			Methyl Ethyl Ketone (2-Butanone)	2021/04/17		89	%	60 - 140
			Methyl Isobutyl Ketone	2021/04/17		83	%	60 - 140
			Methyl t-butyl ether (MTBE)	2021/04/17		94	%	60 - 140
			Styrene	2021/04/17		114	%	60 - 140
			1,1,1,2-Tetrachloroethane	2021/04/17		112	%	60 - 140
			1,1,2,2-Tetrachloroethane	2021/04/17		93	%	60 - 140
			Tetrachloroethylene	2021/04/17		109	%	60 - 140
			Toluene	2021/04/17		93	%	60 - 140
			1,1,1-Trichloroethane	2021/04/17		114	%	60 - 140
			1,1,2-Trichloroethane	2021/04/17		98	%	60 - 140
			Trichloroethylene	2021/04/17		119	%	60 - 140
			Trichlorofluoromethane (FREON 11)	2021/04/17		117	%	60 - 140
			Vinyl Chloride	2021/04/17		95	%	60 - 140
			p+m-Xylene	2021/04/17		101	%	60 - 140
			o-Xylene	2021/04/17		96	%	60 - 140
			F1 (C6-C10)	2021/04/17		100	%	60 - 140
7302284	RSC	Spiked Blank	4-Bromofluorobenzene	2021/04/17		111	%	60 - 140
			D10-o-Xylene	2021/04/17		99	%	60 - 130
			D4-1,2-Dichloroethane	2021/04/17		100	%	60 - 140
			D8-Toluene	2021/04/17		98	%	60 - 140
			Acetone (2-Propanone)	2021/04/17		94	%	60 - 140

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzene	2021/04/17		93	%	60 - 130
			Bromodichloromethane	2021/04/17		108	%	60 - 130
			Bromoform	2021/04/17		114	%	60 - 130
			Bromomethane	2021/04/17		106	%	60 - 140
			Carbon Tetrachloride	2021/04/17		112	%	60 - 130
			Chlorobenzene	2021/04/17		102	%	60 - 130
			Chloroform	2021/04/17		101	%	60 - 130
			Dibromochloromethane	2021/04/17		107	%	60 - 130
			1,2-Dichlorobenzene	2021/04/17		104	%	60 - 130
			1,3-Dichlorobenzene	2021/04/17		108	%	60 - 130
			1,4-Dichlorobenzene	2021/04/17		103	%	60 - 130
			Dichlorodifluoromethane (FREON 12)	2021/04/17		94	%	60 - 140
			1,1-Dichloroethane	2021/04/17		92	%	60 - 130
			1,2-Dichloroethane	2021/04/17		100	%	60 - 130
			1,1-Dichloroethylene	2021/04/17		96	%	60 - 130
			cis-1,2-Dichloroethylene	2021/04/17		105	%	60 - 130
			trans-1,2-Dichloroethylene	2021/04/17		104	%	60 - 130
			1,2-Dichloropropane	2021/04/17		89	%	60 - 130
			cis-1,3-Dichloropropene	2021/04/17		96	%	60 - 130
			trans-1,3-Dichloropropene	2021/04/17		100	%	60 - 130
			Ethylbenzene	2021/04/17		92	%	60 - 130
			Ethylene Dibromide	2021/04/17		100	%	60 - 130
			Hexane	2021/04/17		89	%	60 - 130
			Methylene Chloride(Dichloromethane)	2021/04/17		100	%	60 - 130
			Methyl Ethyl Ketone (2-Butanone)	2021/04/17		92	%	60 - 140
			Methyl Isobutyl Ketone	2021/04/17		85	%	60 - 130
			Methyl t-butyl ether (MTBE)	2021/04/17		93	%	60 - 130
			Styrene	2021/04/17		112	%	60 - 130
			1,1,1,2-Tetrachloroethane	2021/04/17		110	%	60 - 130
			1,1,2,2-Tetrachloroethane	2021/04/17		94	%	60 - 130
			Tetrachloroethylene	2021/04/17		103	%	60 - 130
			Toluene	2021/04/17		91	%	60 - 130
			1,1,1-Trichloroethane	2021/04/17		111	%	60 - 130
			1,1,2-Trichloroethane	2021/04/17		97	%	60 - 130
			Trichloroethylene	2021/04/17		114	%	60 - 130
			Trichlorofluoromethane (FREON 11)	2021/04/17		113	%	60 - 130
			Vinyl Chloride	2021/04/17		90	%	60 - 130
			p+m-Xylene	2021/04/17		97	%	60 - 130
			o-Xylene	2021/04/17		94	%	60 - 130
			F1 (C6-C10)	2021/04/17		97	%	80 - 120
7302284	RSC	Method Blank	4-Bromofluorobenzene	2021/04/17		97	%	60 - 140
			D10-o-Xylene	2021/04/17		97	%	60 - 130
			D4-1,2-Dichloroethane	2021/04/17		100	%	60 - 140
			D8-Toluene	2021/04/17		97	%	60 - 140
			Acetone (2-Propanone)	2021/04/17	<0.50		ug/g	
			Benzene	2021/04/17	<0.020		ug/g	
			Bromodichloromethane	2021/04/17	<0.050		ug/g	
			Bromoform	2021/04/17	<0.050		ug/g	
			Bromomethane	2021/04/17	<0.050		ug/g	
			Carbon Tetrachloride	2021/04/17	<0.050		ug/g	
			Chlorobenzene	2021/04/17	<0.050		ug/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Chloroform	2021/04/17	<0.050		ug/g	
			Dibromochloromethane	2021/04/17	<0.050		ug/g	
			1,2-Dichlorobenzene	2021/04/17	<0.050		ug/g	
			1,3-Dichlorobenzene	2021/04/17	<0.050		ug/g	
			1,4-Dichlorobenzene	2021/04/17	<0.050		ug/g	
			Dichlorodifluoromethane (FREON 12)	2021/04/17	<0.050		ug/g	
			1,1-Dichloroethane	2021/04/17	<0.050		ug/g	
			1,2-Dichloroethane	2021/04/17	<0.050		ug/g	
			1,1-Dichloroethylene	2021/04/17	<0.050		ug/g	
			cis-1,2-Dichloroethylene	2021/04/17	<0.050		ug/g	
			trans-1,2-Dichloroethylene	2021/04/17	<0.050		ug/g	
			1,2-Dichloropropane	2021/04/17	<0.050		ug/g	
			cis-1,3-Dichloropropene	2021/04/17	<0.030		ug/g	
			trans-1,3-Dichloropropene	2021/04/17	<0.040		ug/g	
			Ethylbenzene	2021/04/17	<0.020		ug/g	
			Ethylene Dibromide	2021/04/17	<0.050		ug/g	
			Hexane	2021/04/17	<0.050		ug/g	
			Methylene Chloride(Dichloromethane)	2021/04/17	<0.050		ug/g	
			Methyl Ethyl Ketone (2-Butanone)	2021/04/17	<0.50		ug/g	
			Methyl Isobutyl Ketone	2021/04/17	<0.50		ug/g	
			Methyl t-butyl ether (MTBE)	2021/04/17	<0.050		ug/g	
			Styrene	2021/04/17	<0.050		ug/g	
			1,1,1,2-Tetrachloroethane	2021/04/17	<0.050		ug/g	
			1,1,2,2-Tetrachloroethane	2021/04/17	<0.050		ug/g	
			Tetrachloroethylene	2021/04/17	<0.050		ug/g	
			Toluene	2021/04/17	<0.020		ug/g	
			1,1,1-Trichloroethane	2021/04/17	<0.050		ug/g	
			1,1,2-Trichloroethane	2021/04/17	<0.050		ug/g	
			Trichloroethylene	2021/04/17	<0.050		ug/g	
			Trichlorofluoromethane (FREON 11)	2021/04/17	<0.050		ug/g	
			Vinyl Chloride	2021/04/17	<0.020		ug/g	
			p+m-Xylene	2021/04/17	<0.020		ug/g	
			o-Xylene	2021/04/17	<0.020		ug/g	
			Total Xylenes	2021/04/17	<0.020		ug/g	
			F1 (C6-C10)	2021/04/17	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/04/17	<10		ug/g	
7302284	RSC	RPD	Acetone (2-Propanone)	2021/04/17	NC		%	50
			Benzene	2021/04/17	NC		%	50
			Bromodichloromethane	2021/04/17	NC		%	50
			Bromoform	2021/04/17	NC		%	50
			Bromomethane	2021/04/17	NC		%	50
			Carbon Tetrachloride	2021/04/17	NC		%	50
			Chlorobenzene	2021/04/17	NC		%	50
			Chloroform	2021/04/17	NC		%	50
			Dibromochloromethane	2021/04/17	NC		%	50
			1,2-Dichlorobenzene	2021/04/17	NC		%	50
			1,3-Dichlorobenzene	2021/04/17	NC		%	50
			1,4-Dichlorobenzene	2021/04/17	NC		%	50
			Dichlorodifluoromethane (FREON 12)	2021/04/17	NC		%	50
			1,1-Dichloroethane	2021/04/17	NC		%	50
			1,2-Dichloroethane	2021/04/17	NC		%	50

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			1,1-Dichloroethylene	2021/04/17	NC		%	50
			cis-1,2-Dichloroethylene	2021/04/17	NC		%	50
			trans-1,2-Dichloroethylene	2021/04/17	NC		%	50
			1,2-Dichloropropane	2021/04/17	NC		%	50
			cis-1,3-Dichloropropene	2021/04/17	NC		%	50
			trans-1,3-Dichloropropene	2021/04/17	NC		%	50
			Ethylbenzene	2021/04/17	NC		%	50
			Ethylene Dibromide	2021/04/17	NC		%	50
			Hexane	2021/04/17	NC		%	50
			Methylene Chloride(Dichloromethane)	2021/04/17	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2021/04/17	NC		%	50
			Methyl Isobutyl Ketone	2021/04/17	NC		%	50
			Methyl t-butyl ether (MTBE)	2021/04/17	NC		%	50
			Styrene	2021/04/17	NC		%	50
			1,1,1,2-Tetrachloroethane	2021/04/17	NC		%	50
			1,1,2,2-Tetrachloroethane	2021/04/17	NC		%	50
			Tetrachloroethylene	2021/04/17	NC		%	50
			Toluene	2021/04/17	NC		%	50
			1,1,1-Trichloroethane	2021/04/17	NC		%	50
			1,1,2-Trichloroethane	2021/04/17	NC		%	50
			Trichloroethylene	2021/04/17	NC		%	50
			Trichlorofluoromethane (FREON 11)	2021/04/17	NC		%	50
			Vinyl Chloride	2021/04/17	NC		%	50
			p+m-Xylene	2021/04/17	NC		%	50
			o-Xylene	2021/04/17	NC		%	50
			Total Xylenes	2021/04/17	NC		%	50
			F1 (C6-C10)	2021/04/17	NC		%	30
			F1 (C6-C10) - BTEX	2021/04/17	NC		%	30
7302810	H_W	Matrix Spike	1,4-Difluorobenzene	2021/04/16		92	%	60 - 140
			4-Bromofluorobenzene	2021/04/16		107	%	60 - 140
			D10-o-Xylene	2021/04/16		75	%	60 - 140
			D4-1,2-Dichloroethane	2021/04/16		87	%	60 - 140
			Benzene	2021/04/16		81	%	50 - 140
			Toluene	2021/04/16		79	%	50 - 140
			Ethylbenzene	2021/04/16		90	%	50 - 140
			o-Xylene	2021/04/16		88	%	50 - 140
			p+m-Xylene	2021/04/16		85	%	50 - 140
			F1 (C6-C10)	2021/04/16		77	%	60 - 140
7302810	H_W	Spiked Blank	1,4-Difluorobenzene	2021/04/16		87	%	60 - 140
			4-Bromofluorobenzene	2021/04/16		112	%	60 - 140
			D10-o-Xylene	2021/04/16		96	%	60 - 140
			D4-1,2-Dichloroethane	2021/04/16		88	%	60 - 140
			Benzene	2021/04/16		98	%	50 - 140
			Toluene	2021/04/16		95	%	50 - 140
			Ethylbenzene	2021/04/16		108	%	50 - 140
			o-Xylene	2021/04/16		103	%	50 - 140
			p+m-Xylene	2021/04/16		101	%	50 - 140
			F1 (C6-C10)	2021/04/16		103	%	80 - 120
7302810	H_W	Method Blank	1,4-Difluorobenzene	2021/04/16		94	%	60 - 140
			4-Bromofluorobenzene	2021/04/16		104	%	60 - 140
			D10-o-Xylene	2021/04/16		76	%	60 - 140

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			D4-1,2-Dichloroethane	2021/04/16		93	%	60 - 140
			Benzene	2021/04/16	<0.020		ug/g	
			Toluene	2021/04/16	<0.020		ug/g	
			Ethylbenzene	2021/04/16	<0.020		ug/g	
			o-Xylene	2021/04/16	<0.020		ug/g	
			p+m-Xylene	2021/04/16	<0.040		ug/g	
			Total Xylenes	2021/04/16	<0.040		ug/g	
			F1 (C6-C10)	2021/04/16	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/04/16	<10		ug/g	
7302810	H_W	RPD	Benzene	2021/04/16	NC		%	50
			Toluene	2021/04/16	NC		%	50
			Ethylbenzene	2021/04/16	NC		%	50
			o-Xylene	2021/04/16	NC		%	50
			p+m-Xylene	2021/04/16	NC		%	50
			Total Xylenes	2021/04/16	NC		%	50
			F1 (C6-C10)	2021/04/16	NC		%	30
			F1 (C6-C10) - BTEX	2021/04/16	NC		%	30
7303099	APT	Matrix Spike [PHX103-01]	Hot Water Ext. Boron (B)	2021/04/19		101	%	75 - 125
7303099	APT	Spiked Blank	Hot Water Ext. Boron (B)	2021/04/19		101	%	75 - 125
7303099	APT	Method Blank	Hot Water Ext. Boron (B)	2021/04/19	<0.050		ug/g	
7303099	APT	RPD [PHX103-01]	Hot Water Ext. Boron (B)	2021/04/19	8.6		%	40
7303122	VIV	Matrix Spike [PHX103-01]	Acid Extractable Antimony (Sb)	2021/04/19		94	%	75 - 125
			Acid Extractable Arsenic (As)	2021/04/19		98	%	75 - 125
			Acid Extractable Barium (Ba)	2021/04/19		90	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/04/19		96	%	75 - 125
			Acid Extractable Boron (B)	2021/04/19		89	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/04/19		95	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/04/19		92	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/04/19		93	%	75 - 125
			Acid Extractable Copper (Cu)	2021/04/19		90	%	75 - 125
			Acid Extractable Lead (Pb)	2021/04/19		86	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/04/19		93	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/04/19		95	%	75 - 125
			Acid Extractable Selenium (Se)	2021/04/19		93	%	75 - 125
			Acid Extractable Silver (Ag)	2021/04/19		93	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/04/19		89	%	75 - 125
			Acid Extractable Uranium (U)	2021/04/19		90	%	75 - 125
			Acid Extractable Vanadium (V)	2021/04/19		NC	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/04/19		93	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/04/19		79	%	75 - 125
7303122	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2021/04/19		102	%	80 - 120
			Acid Extractable Arsenic (As)	2021/04/19		103	%	80 - 120
			Acid Extractable Barium (Ba)	2021/04/19		103	%	80 - 120
			Acid Extractable Beryllium (Be)	2021/04/19		98	%	80 - 120
			Acid Extractable Boron (B)	2021/04/19		99	%	80 - 120
			Acid Extractable Cadmium (Cd)	2021/04/19		99	%	80 - 120
			Acid Extractable Chromium (Cr)	2021/04/19		100	%	80 - 120
			Acid Extractable Cobalt (Co)	2021/04/19		99	%	80 - 120
			Acid Extractable Copper (Cu)	2021/04/19		98	%	80 - 120
			Acid Extractable Lead (Pb)	2021/04/19		95	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2021/04/19		97	%	80 - 120

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Nickel (Ni)	2021/04/19		103	%	80 - 120
			Acid Extractable Selenium (Se)	2021/04/19		99	%	80 - 120
			Acid Extractable Silver (Ag)	2021/04/19		98	%	80 - 120
			Acid Extractable Thallium (Tl)	2021/04/19		95	%	80 - 120
			Acid Extractable Uranium (U)	2021/04/19		96	%	80 - 120
			Acid Extractable Vanadium (V)	2021/04/19		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2021/04/19		101	%	80 - 120
			Acid Extractable Mercury (Hg)	2021/04/19		86	%	80 - 120
7303122	VIV	Method Blank	Acid Extractable Antimony (Sb)	2021/04/19	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2021/04/19	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2021/04/19	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2021/04/19	<0.20		ug/g	
			Acid Extractable Boron (B)	2021/04/19	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2021/04/19	<0.10		ug/g	
			Acid Extractable Chromium (Cr)	2021/04/19	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2021/04/19	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2021/04/19	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2021/04/19	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2021/04/19	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2021/04/19	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2021/04/19	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2021/04/19	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2021/04/19	<0.050		ug/g	
			Acid Extractable Uranium (U)	2021/04/19	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2021/04/19	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2021/04/19	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2021/04/19	<0.050		ug/g	
7303122	VIV	RPD [PHX103-01]	Acid Extractable Antimony (Sb)	2021/04/19	NC		%	30
			Acid Extractable Arsenic (As)	2021/04/19	1.6		%	30
			Acid Extractable Barium (Ba)	2021/04/19	5.8		%	30
			Acid Extractable Beryllium (Be)	2021/04/19	8.6		%	30
			Acid Extractable Boron (B)	2021/04/19	NC		%	30
			Acid Extractable Cadmium (Cd)	2021/04/19	NC		%	30
			Acid Extractable Chromium (Cr)	2021/04/19	3.6		%	30
			Acid Extractable Cobalt (Co)	2021/04/19	5.0		%	30
			Acid Extractable Copper (Cu)	2021/04/19	2.0		%	30
			Acid Extractable Lead (Pb)	2021/04/19	1.0		%	30
			Acid Extractable Molybdenum (Mo)	2021/04/19	NC		%	30
			Acid Extractable Nickel (Ni)	2021/04/19	2.8		%	30
			Acid Extractable Selenium (Se)	2021/04/19	NC		%	30
			Acid Extractable Silver (Ag)	2021/04/19	NC		%	30
			Acid Extractable Thallium (Tl)	2021/04/19	NC		%	30
			Acid Extractable Uranium (U)	2021/04/19	8.9		%	30
			Acid Extractable Vanadium (V)	2021/04/19	7.4		%	30
			Acid Extractable Zinc (Zn)	2021/04/19	8.0		%	30
			Acid Extractable Mercury (Hg)	2021/04/19	NC		%	30
7303149	RAJ	Matrix Spike	D10-Anthracene	2021/04/17		102	%	50 - 130
			D14-Terphenyl (FS)	2021/04/17		108	%	50 - 130
			D8-Acenaphthylene	2021/04/17		97	%	50 - 130
			Acenaphthene	2021/04/17		93	%	50 - 130
			Acenaphthylene	2021/04/17		87	%	50 - 130

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Anthracene	2021/04/17		94	%	50 - 130
			Benzo(a)anthracene	2021/04/17		71	%	50 - 130
			Benzo(a)pyrene	2021/04/17		90	%	50 - 130
			Benzo(b/j)fluoranthene	2021/04/17		83	%	50 - 130
			Benzo(g,h,i)perylene	2021/04/17		114	%	50 - 130
			Benzo(k)fluoranthene	2021/04/17		91	%	50 - 130
			Chrysene	2021/04/17		NC	%	50 - 130
			Dibenzo(a,h)anthracene	2021/04/17		123	%	50 - 130
			Fluoranthene	2021/04/17		115	%	50 - 130
			Fluorene	2021/04/17		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/04/17		116	%	50 - 130
			1-Methylnaphthalene	2021/04/17		91	%	50 - 130
			2-Methylnaphthalene	2021/04/17		86	%	50 - 130
			Naphthalene	2021/04/17		44 (1)	%	50 - 130
			Phenanthrene	2021/04/17		61	%	50 - 130
			Pyrene	2021/04/17		76	%	50 - 130
7303149	RAJ	Spiked Blank	D10-Anthracene	2021/04/16		108	%	50 - 130
			D14-Terphenyl (FS)	2021/04/16		106	%	50 - 130
			D8-Acenaphthylene	2021/04/16		94	%	50 - 130
			Acenaphthene	2021/04/16		92	%	50 - 130
			Acenaphthylene	2021/04/16		86	%	50 - 130
			Anthracene	2021/04/16		94	%	50 - 130
			Benzo(a)anthracene	2021/04/16		98	%	50 - 130
			Benzo(a)pyrene	2021/04/16		85	%	50 - 130
			Benzo(b/j)fluoranthene	2021/04/16		98	%	50 - 130
			Benzo(g,h,i)perylene	2021/04/16		115	%	50 - 130
			Benzo(k)fluoranthene	2021/04/16		88	%	50 - 130
			Chrysene	2021/04/16		102	%	50 - 130
			Dibenzo(a,h)anthracene	2021/04/16		109	%	50 - 130
			Fluoranthene	2021/04/16		107	%	50 - 130
			Fluorene	2021/04/16		95	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2021/04/16		116	%	50 - 130
			1-Methylnaphthalene	2021/04/16		93	%	50 - 130
			2-Methylnaphthalene	2021/04/16		86	%	50 - 130
			Naphthalene	2021/04/16		82	%	50 - 130
			Phenanthrene	2021/04/16		98	%	50 - 130
			Pyrene	2021/04/16		107	%	50 - 130
7303149	RAJ	Method Blank	D10-Anthracene	2021/04/16		116	%	50 - 130
			D14-Terphenyl (FS)	2021/04/16		107	%	50 - 130
			D8-Acenaphthylene	2021/04/16		95	%	50 - 130
			Acenaphthene	2021/04/16	<0.0050		ug/g	
			Acenaphthylene	2021/04/16	<0.0050		ug/g	
			Anthracene	2021/04/16	<0.0050		ug/g	
			Benzo(a)anthracene	2021/04/16	<0.0050		ug/g	
			Benzo(a)pyrene	2021/04/16	<0.0050		ug/g	
			Benzo(b/j)fluoranthene	2021/04/16	<0.0050		ug/g	
			Benzo(g,h,i)perylene	2021/04/16	<0.0050		ug/g	
			Benzo(k)fluoranthene	2021/04/16	<0.0050		ug/g	
			Chrysene	2021/04/16	<0.0050		ug/g	
			Dibenzo(a,h)anthracene	2021/04/16	<0.0050		ug/g	
			Fluoranthene	2021/04/16	<0.0050		ug/g	

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Fluorene	2021/04/16	<0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2021/04/16	<0.0050		ug/g	
			1-Methylnaphthalene	2021/04/16	<0.0050		ug/g	
			2-Methylnaphthalene	2021/04/16	<0.0050		ug/g	
			Naphthalene	2021/04/16	<0.0050		ug/g	
			Phenanthrene	2021/04/16	<0.0050		ug/g	
			Pyrene	2021/04/16	<0.0050		ug/g	
7303149	RAJ	RPD	Acenaphthene	2021/04/17	NC		%	40
			Acenaphthylene	2021/04/17	NC		%	40
			Anthracene	2021/04/17	NC		%	40
			Benzo(a)anthracene	2021/04/17	10		%	40
			Benzo(a)pyrene	2021/04/17	NC		%	40
			Benzo(b/j)fluoranthene	2021/04/17	0.46		%	40
			Benzo(g,h,i)perylene	2021/04/17	NC		%	40
			Benzo(k)fluoranthene	2021/04/17	NC		%	40
			Chrysene	2021/04/17	1.0		%	40
			Dibenzo(a,h)anthracene	2021/04/17	NC		%	40
			Fluoranthene	2021/04/17	6.4		%	40
			Fluorene	2021/04/17	NC		%	40
			Indeno(1,2,3-cd)pyrene	2021/04/17	NC		%	40
			1-Methylnaphthalene	2021/04/17	NC		%	40
			2-Methylnaphthalene	2021/04/17	NC		%	40
			Naphthalene	2021/04/17	2.8		%	40
			Phenanthrene	2021/04/17	3.0		%	40
			Pyrene	2021/04/17	8.0		%	40
7303227	BLZ	Matrix Spike	o-Terphenyl	2021/04/17		90	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/04/17		92	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/04/17		88	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/04/17		88	%	50 - 130
7303227	BLZ	Spiked Blank	o-Terphenyl	2021/04/17		87	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/04/17		93	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/04/17		87	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/04/17		87	%	80 - 120
7303227	BLZ	Method Blank	o-Terphenyl	2021/04/17		91	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/04/17	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/04/17	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/04/17	<50		ug/g	
7303227	BLZ	RPD	F2 (C10-C16 Hydrocarbons)	2021/04/17	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2021/04/17	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2021/04/17	NC		%	30
7304056	LHA	Matrix Spike	WAD Cyanide (Free)	2021/04/20		75	%	75 - 125
7304056	LHA	Spiked Blank	WAD Cyanide (Free)	2021/04/20		97	%	80 - 120
7304056	LHA	Method Blank	WAD Cyanide (Free)	2021/04/20	<0.01		ug/g	
7304056	LHA	RPD	WAD Cyanide (Free)	2021/04/20	5.7		%	35
7304570	VP2	Matrix Spike	Chromium (VI)	2021/04/19		63 (2)	%	70 - 130
7304570	VP2	Spiked Blank	Chromium (VI)	2021/04/19		88	%	80 - 120
7304570	VP2	Method Blank	Chromium (VI)	2021/04/19	<0.18		ug/g	
7304570	VP2	RPD	Chromium (VI)	2021/04/19	NC		%	35
7305303	TKA	Spiked Blank	Conductivity	2021/04/19		102	%	90 - 110
7305303	TKA	Method Blank	Conductivity	2021/04/19	<0.002		mS/cm	
7305303	TKA	RPD [PHX103-01]	Conductivity	2021/04/19	0.11		%	10

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7305448	SAU	Spiked Blank	Available (CaCl2) pH	2021/04/19		100	%	97 - 103
7305448	SAU	RPD	Available (CaCl2) pH	2021/04/19	0.13		%	N/A

N/A = Not Applicable

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

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

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

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

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

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

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

(1) The recovery was below the lower control limit due to matrix interference. This may represent a low bias in some results for this specific analyte.

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

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C198583
Report Date: 2021/04/20

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE, ON
Sampler Initials: SD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BUREAU VERITAS

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 153697 Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Stantec Consulting	Company Name:	Quotation #: Stantec Rates	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Sean Brown	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: Randy Sinukoff randy.sinukoff@stantec.com	Address: SAME	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: 358 Reynolds St.	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: sean.brown@stantec.com	Email:	Site #: Oakville, ON	Date Required:
		Site Location Province: Ontario	Rush Confirmation #:
		Sampled By: S. DUNCAN	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[X] Table 2 [ ] Ind/Comm [X] Coarse
[ ] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region ____
[ ] Other (Specify) ____
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)
[ ] REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

LABORATORY USE ONLY
CUSTODY SEAL Y / N: Present N, Intact N
COOLER TEMPERATURES: 8/11/11
COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE): Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Mercury	PAHs	HOLD- DO NOT ANALYZE	COMMENTS
1	TP21-1-1	2021/04/14	12:17p	SOIL	1	~							X			
2	TP21-1-2	↓	12:30p	↓	1	~							X			
3	TP21-2-1		12:45p		1	~							X			
4	TP21-2-2		1:10p		3	~	X	X					X			
5	TP21-3-1	↓	1:27p	↓	4	~	X	X	X	X				X		
6																
7																
8																
9																
10																

14-Apr-21 15:27
Ronklin Gracian
C198583
VBV ENV-685

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	BV JOB #
S. DUNCAN	2021/04/14	3:21p		2021/04/14	1527	

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of our terms available at http://www.bvlabs.com/terms-and-conditions

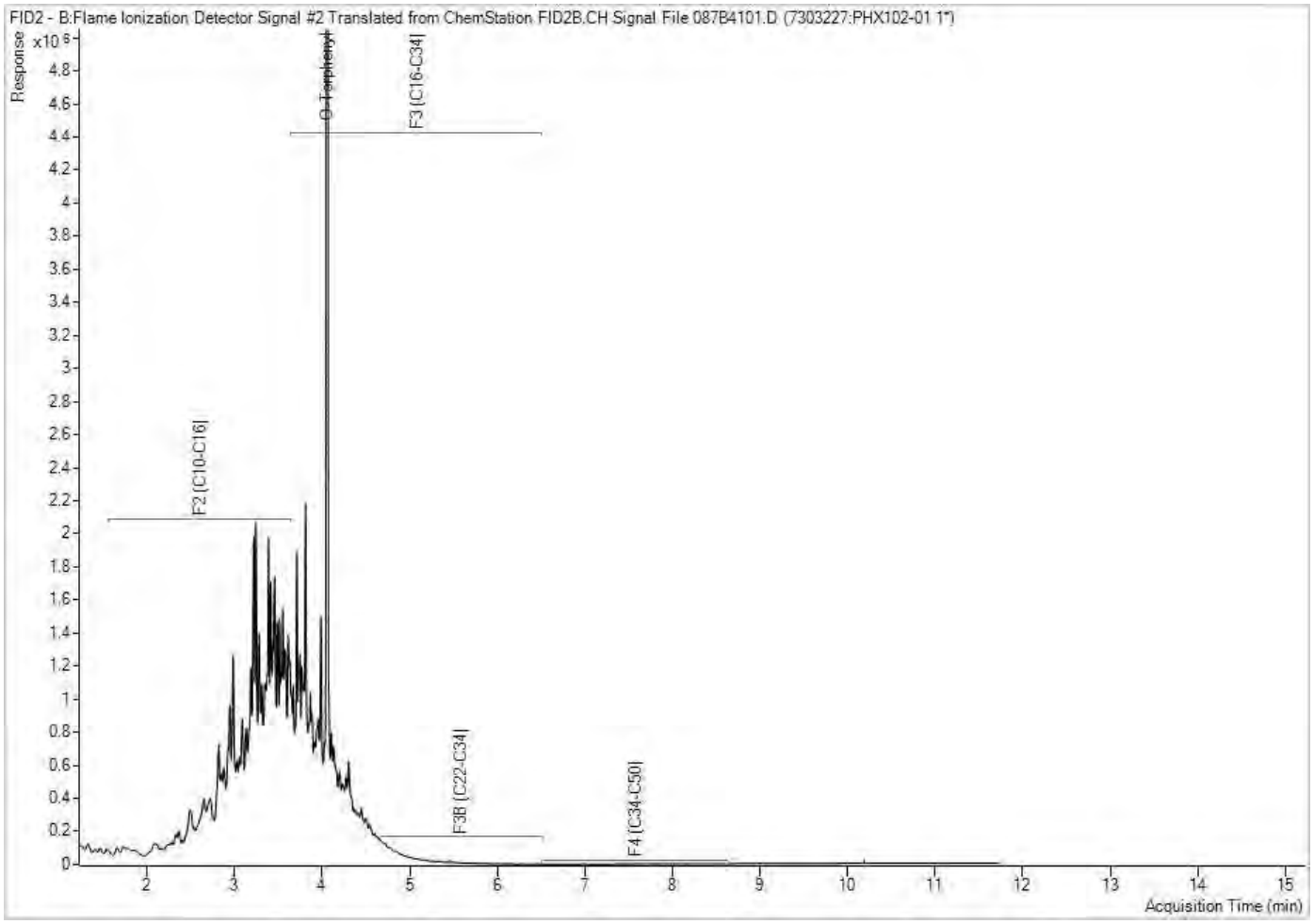
COC-1004 (06/19)

White: BV Labs - Yellow: Client

BV Labs Job #: C198583
Report Date: 2021/04/20
BV Labs Sample: PHX102

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE, ON
Client ID: TP21-2-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

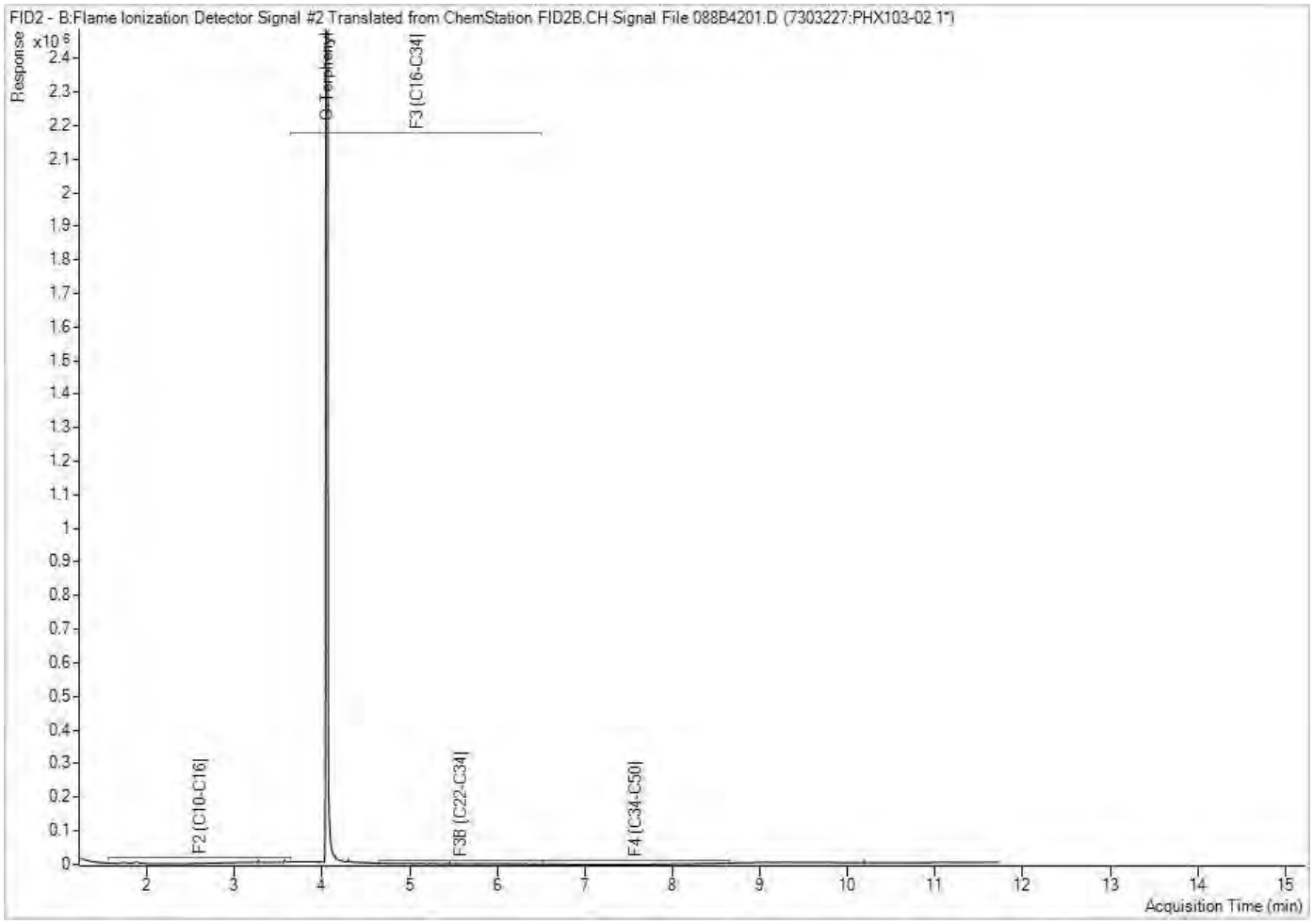


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C198583
Report Date: 2021/04/20
BV Labs Sample: PHX103

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE, ON
Client ID: TP21-3-1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



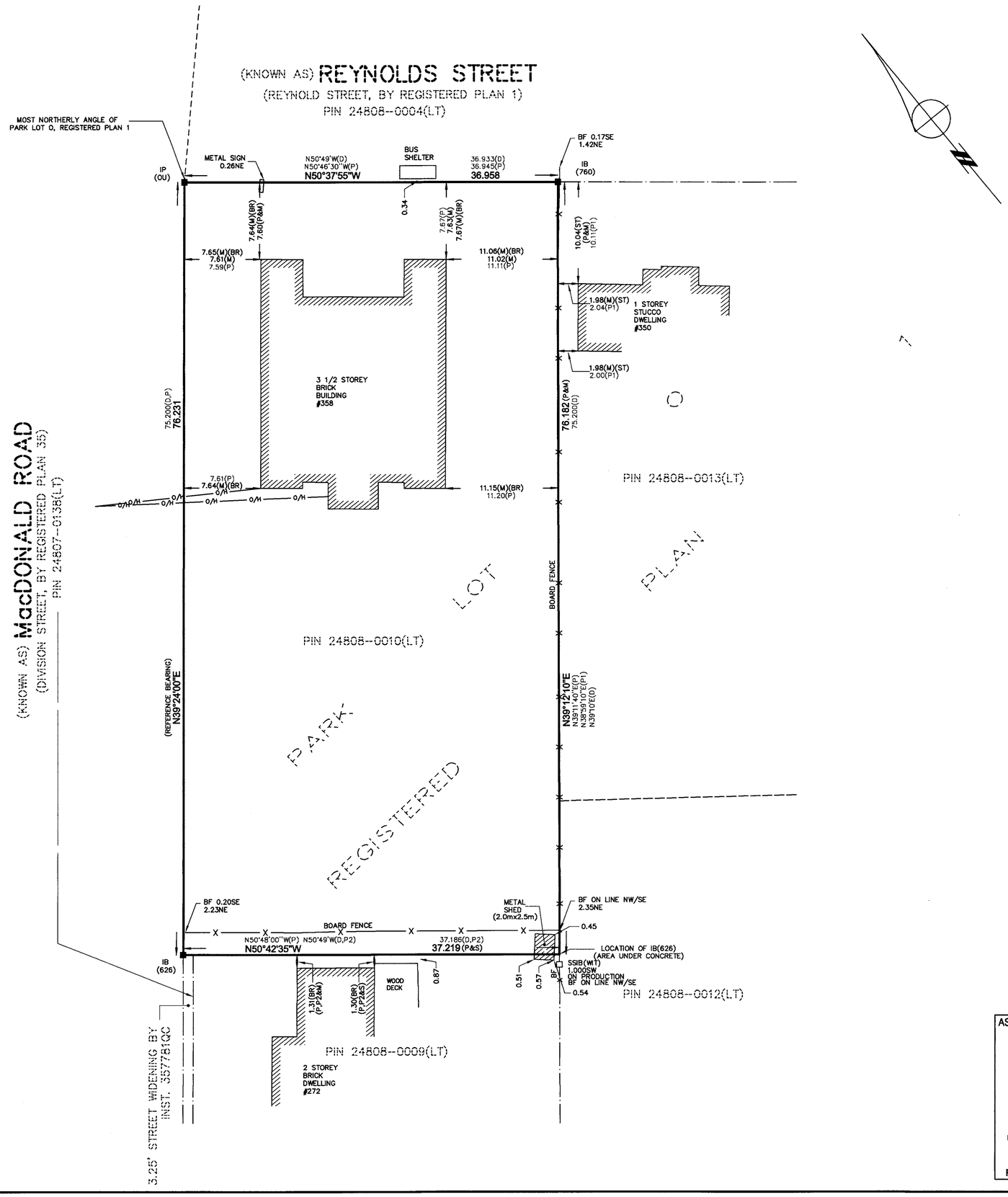
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

A.4 RESIDUE MANAGEMENT

Soil cuttings from drilling operations were left on-site to be removed as part of future redevelopment. Purged ground water is stored in pails in the basement of the vacant site building.

Because the management of residues did not require any permits or approvals, an appendix with this information is not included in this report; however, **Appendix B** and **Appendix C** contain records of materials removed from the site for disposal (including investigation-derived wastes).

A.5 SURVEY OF PHASE TWO PROPERTY



SURVEYOR'S REAL PROPERTY REPORT

PART 1

PLAN OF

PART OF PARK LOT O
REGISTERED PLAN 1
TOWN OF OAKVILLE
REGIONAL MUNICIPALITY OF HALTON

SCALE 1:300

5 0 5 10 15 20 25m

KRCMAR SURVEYORS LTD.

METRIC: DISTANCES SHOWN HEREON ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

BEARING

BEARINGS SHOWN HEREON ARE ASTRONOMIC AND ARE REFERRED TO THE SOUTHEASTERLY LIMIT OF MacDONALD ROAD, AS SHOWN ON A PLAN OF SURVEY BY McCONNELL, MAUGHAN LIMITED, O.L.S. DATED NOVEMBER 15, 1984 HAVING A BEARING OF N39°24'00"E

LEGEND

■	DENOTES SURVEY MONUMENT FOUND
□	DENOTES SURVEY MONUMENT PLANTED
SIB	DENOTES STANDARD IRON BAR
SSIB	DENOTES SHORT STANDARD IRON BAR
IB	DENOTES IRON BAR
IP	DENOTES IRON PIPE
(S)	DENOTES SET
(M)	DENOTES MEASURED
(P)	DENOTES PLAN OF SURVEY BY McCONNELL, MAUGHAN LIMITED, O.L.S. DATED NOVEMBER 15, 1984
(P1)	DENOTES PLAN OF SURVEY BY YATES & YATES, O.L.S. DATED SEPTEMBER 7, 1982
(P2)	DENOTES PLAN OF SURVEY BY SEWELL AND SEWELL, O.L.S. DATED MARCH 31, 1969
(WIT)	DENOTES WITNESS
(626)	DENOTES H.D. SEWELL, O.L.S.
(760)	DENOTES McCONNELL, MAUGHAN LIMITED, O.L.S.
(OU)	DENOTES ORIGIN UNKNOWN
(ST)	DENOTES TIE TAKEN TO STUCCO
(BR)	DENOTES TIE TAKEN TO BRICK
(D)	DENOTES INSTRUMENT 613469
BF	DENOTES BOARD FENCE
-O/H-	DENOTES OVERHEAD HYDRO SERVICE

BUILDING TIES TAKEN TO CONCRETE FOUNDATION WALLS UNLESS OTHERWISE NOTED

PART 2 – SURVEY REPORT

1. THE RE-ESTABLISHMENT OF THE SUBJECT PROPERTY BOUNDARIES IS BASED ON INFORMATION CONTAINED IN THE RELEVANT TITLE DOCUMENTS, REGISTERED PLANS AND ON THE EVIDENCE OF PRIOR SURVEYS FOUND DURING THE COURSE OF PREPARING THE SUBJECT SURVEY.
2. THE TYPE AND LOCATION OF THE EXISTING BUILDINGS AND OTHER IMPROVEMENTS, FENCES ETC., ON OR NEAR THE SUBJECT PROPERTY ARE AS SHOWN ON THE SURVEY PLAN.
3. COMPLIANCE WITH MUNICIPAL ZONING REQUIREMENTS IS NOT CERTIFIED BY THIS REPORT.
4. PLEASE NOTE THE LOCATION OF THE BOARD FENCE AND METAL SHED ALONG THE REAR PROPERTY LINE.
5. METAL SIGN ENCROACHES 0.26 METRES ONTO REYNOLDS STREET.

MUNICIPAL ADDRESS

No. 358 REYNOLDS STREET, TOWN OF OAKVILLE

THIS REPORT WAS PREPARED FOR REYNOLDS HOLDINGS LTD. AND THE UNDERSIGNED ACCEPTS NO RESPONSIBILITY FOR USE BY OTHER PARTIES

SURVEYOR'S CERTIFICATE

I CERTIFY THAT:

1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON 15th DAY OF JANUARY, 2014

DATE: JANUARY 16 , 2014

S.N. RAMSAMOOJ
ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO LAND SURVEYORS
PLAN SUBMISSION FORM
1893310

THIS PLAN IS NOT VALID UNLESS IT IS AN EMBOSSED ORIGINAL COPY
ISSUED BY THE SURVEYOR
In accordance with Regulation 1026, Section 29(3).

FIELD:	R.L.	DRAWN:	S.D.	CHECKED:	S.N.R.	JOB NO:	14-004
DWG NAME:	14-004SR01	PLOT INFO:	08:19 16/Jan/2014			WORK ORDER NO:	15672

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A.6 HYDRAULIC CONDUCTIVITY CALCULATIONS

See Section 6.4 of Phase Two ESA report for details of hydraulic conductivity calculations.

APPENDIX B REMEDIATION

Appendix B REMEDIATION

Stantec Consulting Ltd. (Stantec) was retained by Transmetro Limited (Transmetro) in 2020 and 2021 to provide environmental consulting services that included observation of the excavation and removal of 1) mercury related soil impacts beneath the south portion of the basement floor, and 2) petroleum hydrocarbon (PHC) related soil impacts in an area where an historical fuel oil underground storage tank (UST) was present immediately south; of the building municipally described as 358 Reynolds Street in Oakville, Ontario.

B.1 REMEDIAL ACTIONS

B.1.1 Remedial Objectives

During the remedial program, excavation, soil haulage and disposal were coordinated by Itech Environmental Services (Itech) of Brantford, Ontario. Soil removed from the site was taken to the Green For Life (GFL) Environmental Inc. facility in Etobicoke, Ontario. Bureau Veritas Canada (BV) located in Mississauga, Ontario, subcontracted by Stantec, conducted all laboratory analyses for soil and water samples submitted during the field program. BV is accredited by the Standards Council of Canada (SCC). BV employs in-house quality assurance/quality control (QA/QC) programs.

A Phase Two Environmental Site Assessment (ESA) previously completed by Stantec on the Phase Two Property identified impacts associated with mercury in soil beneath the basement floor of the building, and impacts associated with PHCs in a small area south of the building. The mercury impacts were identified in the soils to a maximum depth of 2.4 m BGS at one borehole location (MW20-5). The source of mercury impacts was thought to be associated with a single limited release of a material containing mercury generated by the former medical office operation on-site. The PHC impacts were identified in the soils to a maximum depth of 3.2 m BGS at one test pit location (TP21-2). The source of PHC impacts was thought to be associated with residual contamination not remediated during the removal of the historical fuel oil UST in 2013 (by others).

The objective of the remediation program was to remove soil impacted by mercury and PHCs to the applicable standards to support the redevelopment of the Site from the current commercial land use to a residential land use, which would require the filing of a Record of Site Condition (RSC) under Ontario Regulation 153/04 (O.Reg.153/04). The only identified contaminants of concern (COCs) were mercury and PHC fractions 2 and 3 (F2 and F3) in soil.

B.1.2 Remedial Excavation for Mercury

The remedial excavation related to mercury impacted soil was completed October 14, October 15, October 21, and November 2, 2020. The remedial excavation work was completed within the property limits and is shown on **Figure No. B.1**.

Based on the interpretation of the analytical results of the current Phase Two ESA, one remedial excavation was planned to be extended to a maximum depth of 2.6 metres below the basement level (m BBL) in the vicinity of MW20-5 where mercury impact soils were identified. The final depth of the interior excavation was 2.6 m BBL or 3.6 m below ground surface (m BGS). A second remedial excavation was planned to be extended to a maximum depth of 3.8 m BGS south of the building in the vicinity of TP21-2.

Based on the laboratory analytical results associated with verification samples of the walls and floor, additional excavation was required to the east at a depth of 1.3 m BBL to achieve the applicable Site Conditions Standards (SCS). Verification samples of the final walls and floor achieved the applicable SCS. The floor area of the excavation was approximately 6.6 m^2.

As the excavation was within the site building and abutted the east building wall, as part of the Phase Two ESA, two test pits were advanced outside immediately adjacent to the east building wall in the vicinity of the exceedance on the initial interior excavation east wall. Concentrations of mercury for the samples submitted from the two test pits were not detected and were therefore less than the applicable SCS at the Phase Two Property, as shown in **Table 3b** of the Phase Two ESA report. Test pit locations are shown in **Figure B.1**. The test pits were advanced to a maximum depth of investigation of 2.5 metres below ground surface (m BGS). Additional confirmatory soil sampling for mercury was completed in soils along the south side of the exterior wall of the building during the PHC remediation completed in June 2021 (see **B.1.3** below). Concentrations of mercury were less than the Table 2 site condition standards (SCS) in all submitted samples, with the exception of the sample from TP21-2 at a depth of 2 – 2.3 m BGS. This material was subsequently removed during the PHC excavation work.

Stantec field personnel were on-site to observe and document soil conditions during the progress of the excavation. The frequency and location of collected verification samples were consistent with the requirements of O.Reg.153/04, including Schedule E, Table 3.

A total of 37.55 metric tonnes of soil were excavated and removed during the remedial excavation program and disposed off-site at the GFL facility in Etobicoke, Ontario. Waste characterization results for soils removed off-site are included as **Table 7** in the Phase Two ESA report. GFL's weigh tickets summarizing the soil totals transferred to the GFL facility are provided in **Appendix C**.

B.1.3 Remedial Excavation for PHCs

The remedial excavation related to PHC F2 and F3 impacted soil was completed from June 7 through 10, 2021. Initial removal of one load of impacted soil was completed on May 4, 2021. The remedial excavation work was completed within the property limits and is shown on **Figure No. B.1.**

Based on the interpretation of the analytical results of the current Phase Two ESA, a remedial excavation associated with PHC impacted soil was planned to be extended to a maximum depth of 3.8 m BGS south of the building in the vicinity of TP21-2.

Verification samples of the final walls achieved the applicable SCS. No soil samples could be recovered from the floor of the excavation as the excavation was terminated on competent bedrock (no soil remained). The floor area of the excavation was approximately 28 m^2.

Stantec field personnel were on-site to observe and document soil conditions during the progress of the excavation. The frequency and location of collected verification samples were consistent with the requirements of O.Reg.153/04, including Schedule E, Table 3.

A total of 144.19 metric tonnes of soil were excavated and removed during the PHC remedial excavation program and disposed off-site at the GFL facility in Etobicoke, Ontario. Waste characterization results for soils removed off-site are included as **Table 7** in the Phase Two ESA report. GFL's weigh tickets summarizing the soil totals transferred to the GFL facility are provided in **Appendix C**.

B.1.4 Soil Sampling

Stantec personnel were present to observe and direct the excavation of soil and to collect environmental verification soil samples. During the remedial excavation activities, field observations made consisted of soil type, grain size, moisture, and visual and/or olfactory evidence of environmental impacts.

For the mercury excavation, as mercury is not organic, soil samples from the excavation and test pits were not screened for combustible vapour concentrations (CVC) or total organic vapour (TOV) as these measurements would not indicate presence or absence of mercury. Samples were selected based on coverage and targeted depths. Following sample selection, soil samples were collected from the selected in-situ locations and placed into laboratory-supplied glass sample jars supplied by the laboratory for submission for chemical analysis.

For the PHC excavation, soil samples from the excavation were screened for combustible vapour concentrations (CVC) or total organic vapour (TOV). Samples were selected based on field vapour readings, presence of PHC odours and/or staining, coverage and targeted depths. Following sample selection, soil samples were collected from the selected in-situ locations and placed into laboratory-supplied glass sample jars supplied by the laboratory for submission for chemical analysis.

Three samples were recovered on October 20, 2021 of soil from the Site that was reused as surface backfill for the PHC excavation. The soil was recovered from a depth of 0.6 m BGS in three discrete locations within the completed PHC excavation using a hand auger. Soil samples were collected from the selected locations and placed into laboratory-supplied glass sample jars supplied by the laboratory for submission for chemical analysis.

B.1.5 Field Screening Assessment

As discussed in section **Appendix B.1.4**., the contaminant of concern (mercury) is not organic, therefore screening for CVC and TOV was not conducted. For the PHC excavation, soil samples from the excavation were screened for CVC and TOV. Excavation extents were determined as noted above in B.1.4. The locations of soil samples collected and submitted for laboratory analysis are shown on **Figure Nos. B.2** and **B.3**.

B.1.6 Liquid Management

No liquid waste was generated during the excavations.

B.1.7 Ground Water Remediation

As no COCs were identified during the Phase Two ground water sampling program, ground water remediation was not required.

B.1.8 Ground Water Sampling

As no COCs were identified during the Phase Two ground water sampling program, no post remediation ground water sampling was conducted.

B.1.9 Sediment Sampling

There was no sediment present at the Phase Two Property.

B.1.10 Analytical Testing

The selected soil verification samples from the on-site excavations were submitted to BV for laboratory analyses of the mercury and/or PHCs, the Phase Two Property COCs. Analyses for concentrations of benzene, toluene, ethylbenzene and xylenes (BTEX) were also completed for the samples submitted during the PHC excavation. Other parameters were detected in Phase Two soil samples, however the concentrations were less than the applicable SCS, and therefore are not considered COCs.

Laboratory analyses completed by BV were in accordance with the content of the MOE document *Protocol for Analytical Methods Used in the Assessment of Properties under Environmental Protection*

Act, March 9, 2004 amended as of July 1, 2011. BV is accredited in accordance with the International Standard *ISO/IEC 17025 – General Requirement for the Competence of Testing and Calibration Laboratories*. In addition, BV is accredited by the Standards Council of Canada (SCC) for the analysis of the parameters included in this report, where proficiency testing has been developed by the SCC.

B.1.11 Analytical Protocol/Certificates of Analysis

Soil samples collected as part of the remedial verification program were submitted to BV for laboratory analysis of mercury, BTEX and/or PHCs. Laboratory results were summarized by the laboratory in certificates of analysis and provided to Stantec for review.

Following review, Stantec confirms that:

- Received Certificates of Analysis comply with Section 47(3) of O.Reg.153/04. Specifically, each Certificate of Analysis includes the following information:

  a) The laboratory name, address, contact and phone number;

  b) Sample identification number for tracking purposes;

  c) Sample type and location;

  d) Sampling date;

  e) Date the sample was received;

  f) Date the sample was analyzed;

  g) Method identification and method reference as specified in the Analytical Protocol;

  h) Chemical parameter measured;

  i) Reporting limits, including adjustment for sample size, moisture content or dilution factor;

  j) Method specific quality assurance and quality control requirements as specified in the Analytical Protocol;

  k) Authorization to release the certificate including,

  i) The name, function, and signature or equivalent of any person authorizing the release, and

  ii) A statement that the results relate only to the items tested;

  l) Certification that the data met analytical requirements in the Analytical Protocol with, if applicable, a detailed description of and rationale for qualification for required exceptions; and

m) Information recorded by the laboratory with respect to the condition of samples brought to the laboratory, including information recorded with respect to,

i) sample quality, holding time, preservation and storage, and

ii) sample containers. O. Reg. 153/04, s. 22.

- A certificate of analysis was received by Stantec for each soil sample submitted for laboratory characterization; and
- Copies of received certificates of analysis have been included within this remediation report in section **Appendix B.6**.

Analytical results in **Tables B.1** and **B.2** should be referenced to determine the relevant soil verification analysis that is representative of the final extent of the remedial excavations.

B.1.12 Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) procedures were incorporated into both field and laboratory protocols. The following data quality objective (DQO) was established for this investigation:

- Soil analytical data were to be of an acceptable quality to allow for comparison with the SCS referenced under O.Reg.153/04.
- Soil samples were placed into glass sample jars supplied by BV.
- Each sample was labeled with a unique ID, packed into coolers with ice, and transported to BV under chain-of-custody documentation.
- Efforts were made during sampling to reduce the potential for contamination so as to obtain representative samples. Accordingly, soil sampling was completed using a new pair of disposable nitrile gloves for each sample. Calibrations checks on field instruments were completed by the supplier and certificates of calibrations were provided with the field instruments and reviewed by Stantec field personnel prior to use.

To evaluate the laboratory analytical methods and sample precision, field duplicate samples (10% of total number of samples analyzed) were collected and submitted for analysis of mercury, BTEX, and/or PHC F1 to F4.

Field duplicate samples were used to assess the precision of the sampling and analytical procedures. To evaluate the precision associated with sampling and analytical methods, the samples and their duplicates were used to calculate the relative percent difference (RPD). The RPD was calculated using the following Formula:

$$RPD = \left| \frac{C_1 - C_2}{(C_1 + C_2)/2} \right| \times 100$$

Where: C_1 is the concentration in the original sample; and

C_2 is the concentration in the sample replicate.

When the analytical result for either the original sample or its duplicate was less than the analytical method reportable detection limit (RDL), or if the results for both the original and the duplicate were below the RDL, the RPD was not calculated. In this case, the analytical results were assumed to have a high degree of similarity.

The recommended alert criteria from Maxxam's (now Bureau Veritas Canada) Ontario QA/QC Interpretation Guideline (Maxxam (2016)) are listed below. The following screening level acceptance criteria for soil were applied:

- Metals: 30%
- PHCs: 30%
- BTEX: 50%

The results of QA/QC analyses are discussed in **Section B.3.5**.

B.2 FREE FLOWING PRODUCT

No free product was observed in soil during the progress of the remedial excavation.

B.3 RESULTS OF CONFIRMATION SAMPLING AND ANALYSIS

B.3.1 Combustible and Total Organic Vapour Concentrations

The CVC and TOV concentrations of soil samples were not measured in samples from the final walls and floors of the completed mercury excavation. The maximum CVC and TOV concentrations of soil samples measured in samples from the final walls of the completed PHC excavation < 5 parts per million (ppm) and 3 ppm, respectively, and are shown in **Figure B.3**.

B.3.2 Laboratory Soil Analytical Results

Three soil samples were submitted for laboratory analysis from the two test pits advanced outside of the east site building wall. Concentrations of mercury at these locations were less than laboratory detection limits. The laboratory analytical results for these soil samples are presented in **Table 3b** of the Phase Two ESA report.

Thirteen soil samples (and one field duplicate) were submitted for laboratory analysis and were considered representative of soil conditions at the final base and walls of the mercury excavation as part of the remediation program completed on the Phase Two Property. One additional sample from soil where the concentration of mercury exceeded the applicable SCS was submitted on October 14, 2020; soil from this area was later removed from the remedial excavation. The laboratory analytical results of the verification soil samples recovered during the mercury excavation are presented in **Tables B.1** and **B.2**, and on **Figure Nos. B.2, B.4** and **B.5.**

The laboratory analytical results indicated that concentrations of mercury in soil were less than the Table 2 SCS for verification soil samples recovered from the final walls and base of the mercury excavation (**Tables B.1 and B.2**).

Ten soil samples (and one field duplicate) were submitted for laboratory analysis and were considered representative of soil conditions at the final walls of the PHC excavation as part of the remediation program completed on the Phase Two Property. Two additional samples (and one field duplicate) from soil on the temporary floor of the excavation where the concentrations of PHC F2 and F3 exceeded the applicable SCS were submitted on May 4, 2021; soil from this area was removed during the remedial excavation completed in June 2021. The laboratory analytical results of the verification soil samples recovered during the PHC excavation are presented in **Table B.2**, and on **Figure Nos. B.3, B.6** and **B.7.**

The laboratory analytical results indicated that concentrations of PHCs in soil were less than the Table 2 SCS for verification soil samples recovered from the final walls of the excavation (**Table B.2**).

Three samples were recovered on October 20, 2021 of soil from the Site that was reused as surface backfill for the PHC excavation. The soil was recovered from a depth of 0.6 m BGS in three discrete locations within the completed PHC excavation using a hand auger. The laboratory analytical results indicated that concentrations of BTEX, PHCs and metals in soil were less than the Table 2 SCS for the backfill soil samples (**Table B.3**).

B.3.3 Laboratory Ground Water Analytical Results

As no COCs were identified during the Phase Two ground water sampling program, no post remediation ground water sampling was conducted.

B.3.4 Quality Assurance and Quality Control Results

Stantec implemented the following QA/QC program in an effort to obtain data that were considered accurate and representative of actual soil conditions. This program consisted of, but was not limited to:

- Proper sample containment, preservation, handling and transportation;
- Use of an accredited laboratory;

- Use of detection limits appropriate for the required evaluation, where possible;
- Due regard for necessary health and safety precautions;
- Project staff were properly trained and equipped to undertake the tasks involved in the project;
- Detailed protocols for collecting, documenting, preserving, and transporting samples, as well as conducting field activities, were applied;
- The analytical methods proposed by the laboratory were reviewed prior to the submission of samples to ensure that where possible the RDLs for the requested analyses met, or were lower than, the respective standards to which the analytical data were to be compared; and,
- Field and analytical data were evaluated and interpreted by both the sampling personnel and the project scientific and management teams.

B.3.5 Review of Field Program QA/QC

The relative percent difference (RPD) in soil could not be calculated as the results for the field duplicates were below reporting limits. Therefore, based on the review of the analytical results of the original samples and the corresponding field duplicate, the laboratory and field procedures were deemed suitable for use and the objectives of the QA/QC program were met.

B.3.6 Deviations from the Sampling and Analysis Plan

No deviation from the sampling and analysis plan was noted during the course of this investigation.

B.4 CONCLUSIONS

The remediation program at the Phase Two Property was developed to remove areas of soil impacted with two COCs (mercury under the corner of the building, and PHCs adjacent to the south building wall) at concentrations exceeding the applicable Table 2 SCS.

The remedial excavation for mercury was completed between October 15 and November 2, 2020. During the remedial work, there was one exceedance of Table 2 SCS in the interim east wall of the excavation. As this was near the building wall, two test pits were advanced immediately adjacent to the exterior of the wall; concentrations of mercury in all soil samples from the test pits were less than the Table 2 SCS. The east wall of the interior excavation was then expanded to remove the area of soil containing the exceedance. Laboratory analytical results from the final extents of the excavation indicated that concentrations of mercury in soil in all samples were less than the Table 2 SCS.

The remedial excavation for PHCs was completed between June 7 and 10, 2021. Laboratory analytical results from the final extents of the excavation indicated that concentrations of PHCs (and BTEX) in soil in

all samples were less than the Table 2 SCS. The laboratory analytical results for three samples of soil reused as backfill indicated that concentrations of BTEX, PHCs, metals and mercury were less than the Table 2 SCS.

B.5 SUMMARIES OF SOIL AND GROUND WATER REMOVED FROM THE PHASE TWO PROPERTY

Three triaxle truckloads of soil totaling 37.55 metric tonnes (MT) were removed from the Phase Two Property during the mercury remediation. Soil was removed on October 15 and November 10, 2020. The soil was hauled to and disposed of at GFL, 85 Vickers Road, Toronto, ON. Eight triaxle truck shipments of soil totaling 144.19 MT were removed from the Phase Two Property during the PHC remediation. Soil was removed on various dates between May 4, 2021 and June 10, 2021. The soil was hauled to and disposed of at GFL, 85 Vickers Road, Toronto, ON.

No ground water associated with the remediation work was removed from the Phase Two Property.

Table B.1
Summary of Soil Analytical Results (Remediation) – Mercury
Interior Soil Remediation Program
Transmetro Limited – 358 Reynolds Street, Oakville, Ontario

Sample Location			EX20-B1				EX20-B2	EX20-E1		EX20-E2	EX20-N1		EX20-N2	EX20-N3	EX20-N4	EX20-S1	EX20-W1	EX20-W2
Sample Date			2-Nov-20	2-Nov-20		15-Oct-20	14-Oct-20	14-Oct-20	2-Nov-20	14-Oct-20	14-Oct-20	2-Nov-20	14-Oct-20	15-Oct-20	15-Oct-20	2-Nov-20	15-Oct-20	15-Oct-20
Sample ID			EX20-B1-R1	QC-01		EX20-B1	EX20-B2	EX20-E1	EX20-E1-R1	EX20-E2	EX20-N1	EX20-N1-R1	EX20-N2	EX20-N3	EX20-N4	EX20-S1-R1	EX20-W1	EX20-W2
Sample Depth			1.3 m BGS	1.3 m BGS		2.6 m BGS	2.6 m BGS	1 m BGS	1 m BGS	2 m BGS	1 m BGS	1 m BGS	2 m BGS	1 m BGS	2 m BGS	1 m BGS	1 m BGS	2 m BGS
Sampling Company			STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			BV	BV		BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV	BV
Laboratory Work Order			C0S9378	C0S9378		C0R2497	C0Q8760	C0Q8760	C0S9378	C0Q8760	C0Q8760	C0S9378	C0Q8760	C0R2497	C0R2497	C0S9378	C0R2497	C0R2497
Laboratory Sample ID			OAY166	OAY168		NXH889	NWO069	NWO067	OAY165	NWO068	NWO065	OAY164	NWO066	NXH885	NXH886	OAY167	NXH887	NXH888
Sample Type	Units	Ontario SCS		Field Duplicate	RPD (%)													
Metals																		
Mercury	µg/g	0.27[A]	0.15	<0.050	nc	<0.050	<0.050	**1.0[A]**	<0.050	<0.050	<0.050	<0.050	<0.050	0.085	0.079	<0.050	<0.050	<0.050

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
[A]	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
	Sample removed during remedial activities
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective of 30%.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.

Table B.2
Summary of Soil Analytical Results (Remediation) – BTEX, PHC and Mercury
Exterior Soil Remediation Program
Transmetro Limited – 358 Reynolds Street, Oakville, Ontario

Sample Location			CELL 3-EW-3.5	CELL 3-NW-3.5	EX1-E1	EX1-S2			EX1-W1	F1	F2			W1-2	W3	W4	W5-2	W7-2
Sample Date			9-Jun-21	9-Jun-21	10-Jun-21	10-Jun-21	10-Jun-21		10-Jun-21	4-May-21	4-May-21	4-May-21		4-May-21	4-May-21	4-May-21	4-May-21	4-May-21
Sample ID			CELL 3-EW-3.5	CELL 3-NW-3.5	EX1-E1	EX1-S2	QC-02		EX1-W1	F1	F2	QC-1		W1-2	W3	W4	W5-2	W7-2
Sample Depth																		
Sampling Company			STANTEC	STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC		STANTEC	STANTEC	STANTEC	STANTEC	STANTEC
Laboratory			BV	BV	BV	BV	BV		BV	BV	BV	BV		BV	BV	BV	BV	BV
Laboratory Work Order			C1F8030	C1F8030	C1F9401	C1F9401	C1F9401		C1F9401	C1B8804	C1B8804	C1B8804		C1B8804	C1B8804	C1B8804	C1B8804	C1B8804
Laboratory Sample ID			PUG677	PUG676	PUN866	PUN865	PUN867		PUN863	PMC326	PMC327	PMC333		PMC332	PMC328	PMC329	PMC330	PMC331
Sample Type	Units	Ontario SCS					Field Duplicate	RPD (%)				Field Duplicate	RPD (%)					
General Chemistry																		
Moisture Content	%	n/v	21	19	15	21	18	15%	18	18	14	15	7%	17	12	10	12	13
Metals																		
Mercury	µg/g	0.27[A]	-	-	-	-	-	-	-	<0.050	<0.050	0.071	nc	<0.050	0.24	0.084	0.15	<0.050
BTEX and Petroleum Hydrocarbons																		
Benzene	µg/g	0.21[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	<0.020
Toluene	µg/g	2.3[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylbenzene	µg/g	1.1[A]	<0.020	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	<0.020
Xylene, m & p-	µg/g	[A]$_{s1}$	<0.040	<0.040	<0.040	<0.040	<0.040	nc	<0.040	<0.040	<0.040	<0.040	nc	<0.040	<0.040	<0.040	<0.040	<0.040
Xylene, o-	µg/g	[A]$_{s1}$	<0.020	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	nc	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes, Total	µg/g	3.1$_{s1}$[A]	<0.040	<0.040	<0.040	<0.040	<0.040	nc	<0.040	<0.040	<0.040	<0.040	nc	<0.040	<0.040	<0.040	<0.040	<0.040
PHC F1 (C6-C10 range)	µg/g	[A]$_{s7}$	<10	<10	<10	<10	<10	nc	<10	<10	32	42	nc	<10	<10	<10	<10	<10
PHC F1 (C6-C10 range) minus BTEX	µg/g	55$_{s7}$[A]	<10	<10	<10	<10	<10	nc	<10	<10	32	42	nc	<10	<10	<10	<10	<10
PHC F2 (>C10-C16 range)	µg/g	98$_{s15}$[A]	<10	<10	<10	<10	<10	nc	<10	**120[A]**	**850[A]**	**710[A]**	18%	<10	<10	<10	18	<10
PHC F3 (>C16-C34 range)	µg/g	300$_{s8}$[A]	<50	<50	<50	<50	<50	nc	<50	140	**670[A]**	**610[A]**	9%	<50	<50	<50	<50	<50
PHC F4 (>C34-C50 range)	µg/g	2,800$_{s10}$[A]	<50	<50	<50	<50	<50	nc	<50	<50	<50	<50	nc	<50	<50	<50	<50	<50
Chromatogram to baseline at C50	none	n/v	YES	YES	YES	YES	YES	nc	YES	YES	YES	YES	nc	YES	YES	YES	YES	YES

Notes:

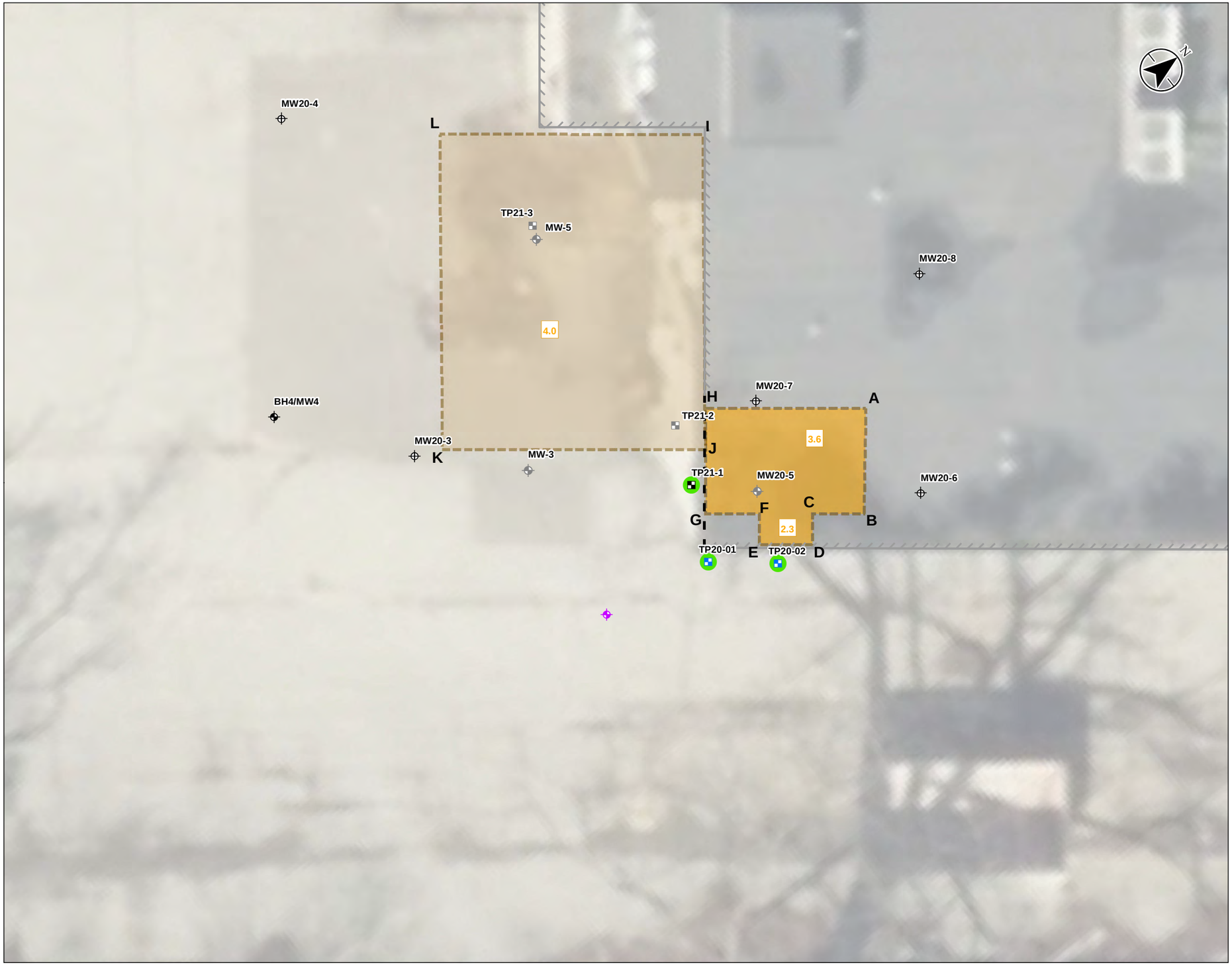
Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
A	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
s1	Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
s7	Standard is applicable to PHC in the F1 range minus BTEX.
s8	Standard is applicable to PHC in the F3 range, minus PAHs (other than naphthalene). If PAHs were not analyzed, the standard is applied to F3.
s10	If baseline is not reached during F4 analysis, then gravimetric analysis is to be performed, and the standard is applied to the higher of the two results.
s15	Standard is applicable to PHC in the F2 range minus naphthalene. If naphthalene was not analyzed, the standard is applied to F2.
RPD	Relative Percent Difference.
61%	RPD exceeds data quality objective of 30%.
nc	RPD is not calculated if one or more values is non detect or if one or more values is less than five times the reportable detection limit.
PHC	Petroleum hydrocarbons
BTEX	Benzene, Toluene, Ethylbenzene, Xylenes
	Soil sample was removed during remedial program

Table B3
Summary of Soil Analytical Results (Remediation) – BTEX, PHC, Metals and Mercury
Reused Stockpile Soils, Exterior Soil Remediation Program
Transmetro Limited – 358 Reynolds Street, Oakville, Ontario

Sample Location			GS21-01	GS21-02	GS21-03
Sample Date			20-Oct-21	20-Oct-21	20-Oct-21
Sample ID			GS21-01	GS21-02	GS21-03
Sampling Company			STANTEC	STANTEC	STANTEC
Laboratory			BV	BV	BV
Laboratory Work Order			C1U6428	C1U6428	C1U6428
Laboratory Sample ID	Units	Ontario SCS	QZM460	QZM461	QZM462
General Chemistry					
Moisture Content	%	n/v	3.5	3.6	6.0
BTEX and Petroleum Hydrocarbons					
Benzene	µg/g	0.21[A]	<0.020	<0.020	<0.020
Toluene	µg/g	2.3[A]	0.027	0.041	<0.020
Ethylbenzene	µg/g	1.1[A]	<0.020	<0.020	<0.020
Xylenes, Total	µg/g	3.1[A] [s1]	<0.040	<0.040	<0.040
PHC F1 (C6-C10 range) minus BTEX	µg/g	55[A] [s7]	<10	<10	<10
PHC F2 (>C10-C16 range)	µg/g	98[A] [s15]	<10	<10	<10
PHC F3 (>C16-C34 range)	µg/g	300[A] [s8]	<50	<50	<50
PHC F4 (>C34-C50 range)	µg/g	2,800[A] [s10]	<50	<50	<50
Chromatogram to baseline at C50	none	n/v	YES	YES	YES
Metals					
Antimony	µg/g	7.5[A]	<0.20	<0.20	<0.20
Arsenic	µg/g	18[A]	1.4	<1.0	<1.0
Barium	µg/g	390[A]	18	10	11
Beryllium	µg/g	4[A]	<0.20	<0.20	<0.20
Boron	µg/g	120[A] [s16]	<5.0	<5.0	<5.0
Cadmium	µg/g	1.2[A]	<0.10	<0.10	<0.10
Chromium	µg/g	160[A]	5.6	4.1	5.1
Cobalt	µg/g	22[A]	2.3	1.3	1.9
Copper	µg/g	140[A]	10	6.8	7.3
Lead	µg/g	120[A]	3.4	3.9	2.3
Mercury	µg/g	0.27[A]	<0.050	<0.050	<0.050
Molybdenum	µg/g	6.9[A]	<0.50	<0.50	<0.50
Nickel	µg/g	100[A]	4.5	2.8	3.4
Selenium	µg/g	2.4[A]	<0.50	<0.50	<0.50
Silver	µg/g	20[A]	<0.20	<0.20	<0.20
Thallium	µg/g	1[A]	<0.050	<0.050	<0.050
Uranium	µg/g	23[A]	0.31	0.30	0.26
Vanadium	µg/g	86[A]	15	9.4	13
Zinc	µg/g	340[A]	18	19	9.5

Notes:

Ontario SCS	Soil, Ground Water and Sediment Standards for Use under Part XV.I of the Environmental Protection Act (MOE, 2011) Site Condition Standards (SCS)
A	Table 2 - Residential / Parkland / Institutional Property Use - Coarse Textured Soils
6.5[A]	Concentration exceeds the indicated standard.
15.2	Measured concentration did not exceed the indicated standard.
<0.50	Laboratory reporting limit was greater than the applicable standard.
<0.03	Analyte was not detected at a concentration greater than the laboratory reporting limit.
n/v	No standard/guideline value.
-	Parameter not analyzed / not available.
s1	Standard is applicable to total xylenes, and m & p-xylenes and o-xylenes should be summed for comparison.
s7	Standard is applicable to PHC in the F1 range minus BTEX.
s8	Standard is applicable to PHC in the F3 range, minus PAHs (other than naphthalene). If PAHs were not analyzed, the standard is applied to F3.
s10	If baseline is not reached during F4 analysis, then gravimetric analysis is to be performed, and the standard is applied to the higher of the two results.
s15	Standard is applicable to PHC in the F2 range minus naphthalene. If naphthalene was not analyzed, the standard is applied to F2.
s16	For surface soil, the boron standard is for hot water soluble extract. For subsurface soil, the standard is for total boron (mixed strong acid digest), as ecological criteria are not considered.



Stantec

Legend

- 4.0 — Approximate Depth of Excavation (m BGS)
- Monitoring Well (Stantec, 2020)
- Approximate Location of Monitoring Well (by Others)
- Monitoring Well Decommissioned (Stantec, 2021)
- Test Pit (Stantec, 2021)
- Test Pit (Stantec, 2020)
- Test Pit Location Removed During Remedial Program
- Damaged Historical Monitoring Well (no data available)
- Building Footprint
- Approximate Areal Extent of Wall Being Removed
- Approximate Property Boundary
- Approximate Areal Extent of Interior Excavation (Stantec, October 2020)
- Approximate Areal Extent of Exterior Excavation (Stantec, June 2021)
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)

0 2.5 5 metres

1:75 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Base features produced under license with the Ontario Ministry of Natural Resources and Forestry © Queen's Printer for Ontario, 2017.
3. Orthoimagery © First Base Solutions, 2020. Imagery Date, 2019.
4. MECP - Ministry of the Environment, Conservation and Parks
5. SCS - Site Condition Standards

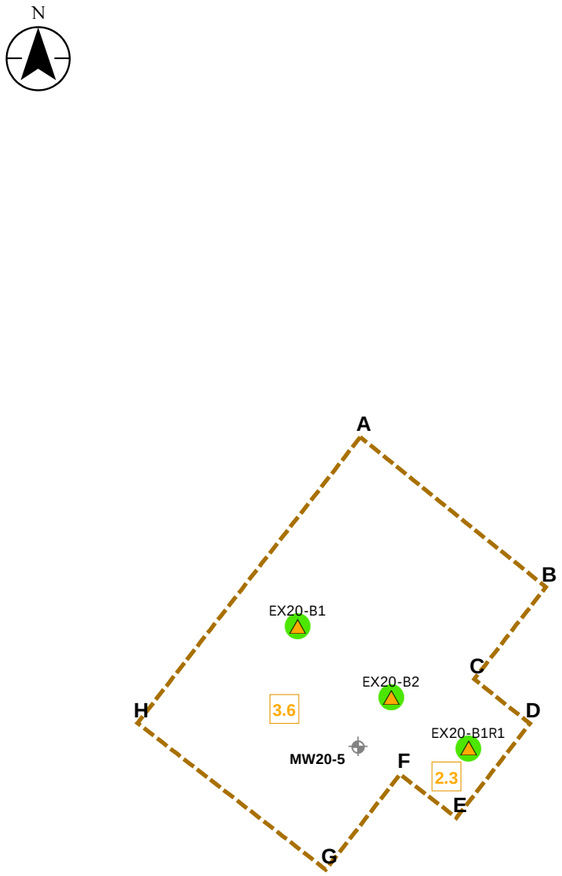
Project Location
358 Reynolds Street
Oakville, Ontario

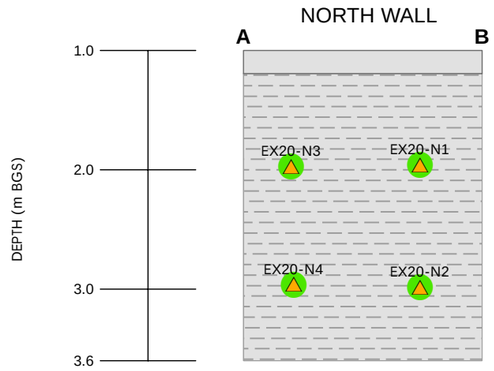
122120345 REVA
Prepared by IP on 2021-10-19

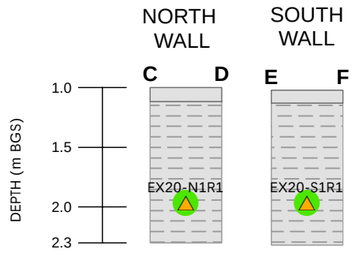
Client/Project
TRANSMETRO LIMITED, SOIL REMEDIATION PROGRAM

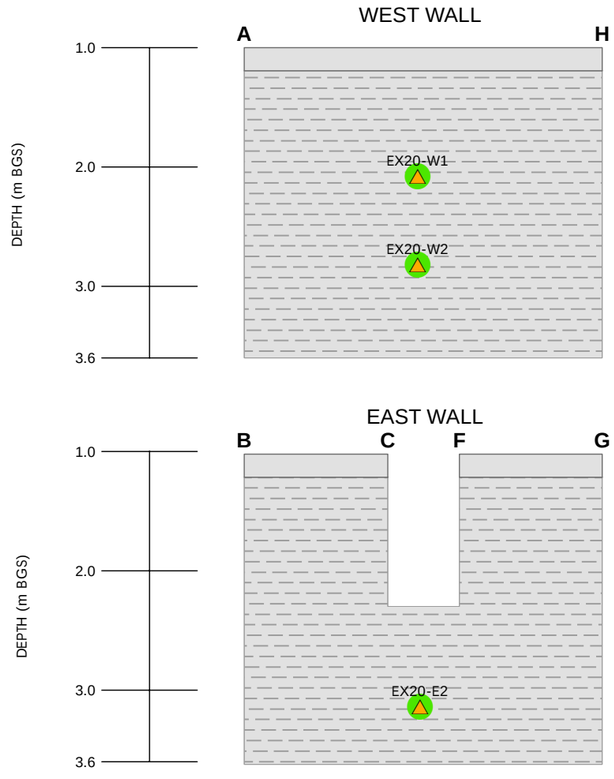
Figure No.
B.1

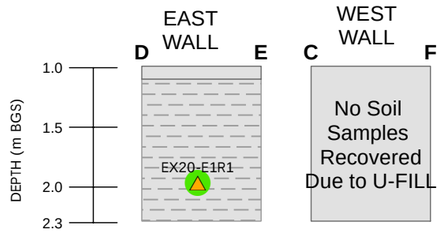
Title
Site Plan Showing the Approximate Areal Extent of the Interior, Exterior Remedial Programs and Test Pit Program











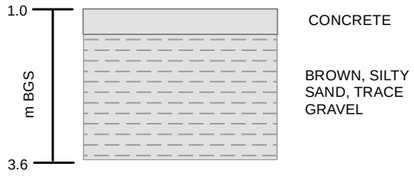
Stantec

Legend

- Monitoring Well Decommissioned (Stantec, 2021)
- Screening Soil Sample Submitted for Laboratory Analysis
- 0.5 Approximate Depth of Excavation (m BGS)
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)
- Open
- Concrete
- Excavation Wall Profile
- Approximate Areal Extent of Interior Excavation (Stantec, October 2020)

*Note - Basement floor level is 1.0 mBGS

TYPICAL STRATIGRAPHY



0 1 2 metres

1:50 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Site features are based on field observations and should be considered approximate.
3. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
4. m BGS- metres below ground surface.
5. MECP - Ministry of the Environment, Conservation and Parks
6. SCS - site condition standards

Project Location
358 Reynolds Street
Oakville, Ontario

122120345
Prepared by IP on 8/9/2021

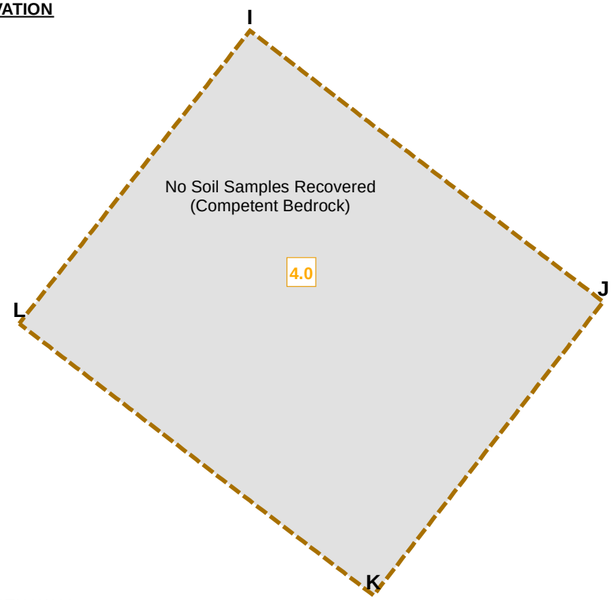
Client/Project
TRANSMETRO LIMITED, SOIL REMEDIATION PROGRAM

Figure No.
B.2

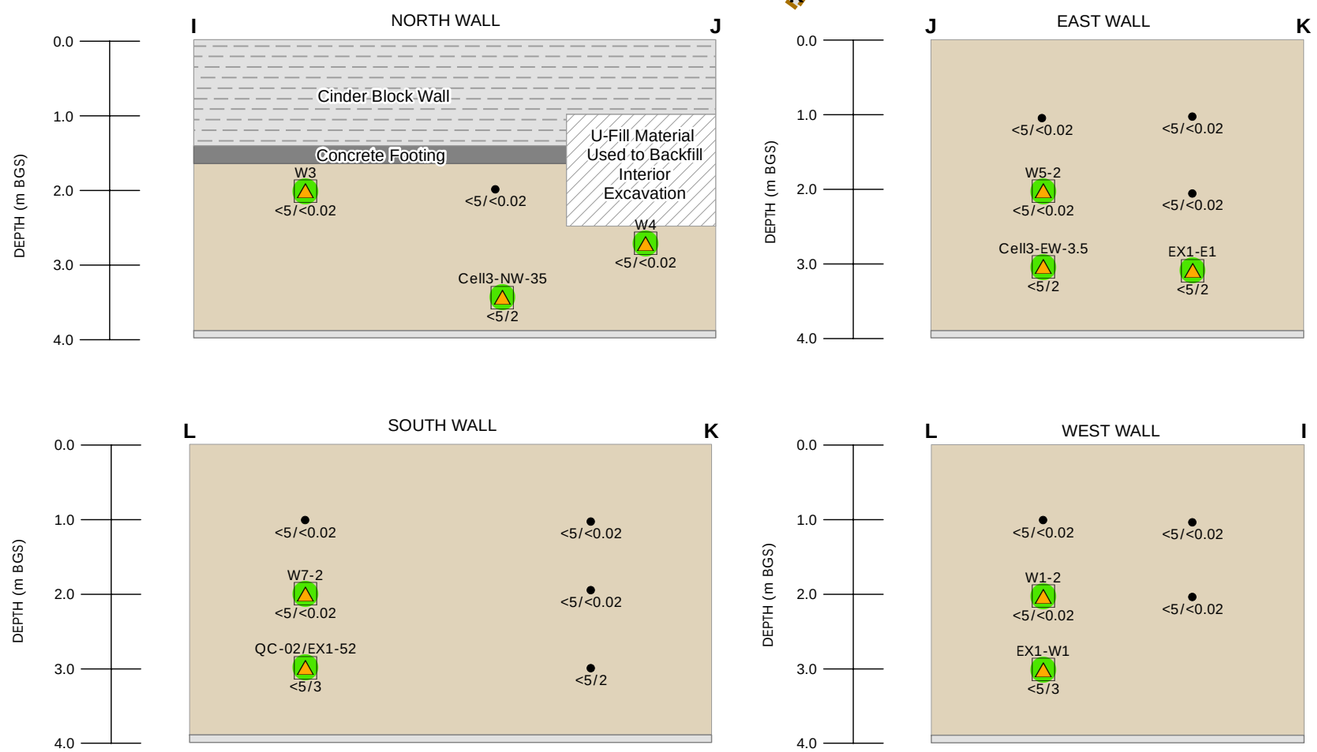
Title
Approximate Soil Sampling Locations on the Wall and Base of the Mercury Excavation

N

BASE OF THE EXCAVATION



WALLS OF THE EXCAVATION

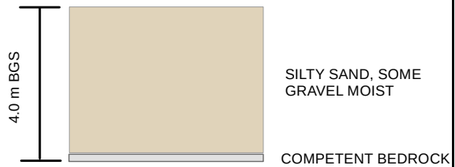


Stantec

Legend

- Approximate Screening Soil Sample Location
- Screening Soil Sample Submitted for Laboratory Analysis
- 4.0 Approximate Depth of Excavation (m BGS)
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)
- Approximate Areal Extent of Exterior Excavation (Stantec, June 2021)

TYPICAL STRATIGRAPHY



0 1 2 metres

1:80 (At original document size of 11x17)

Notes

1. Coordinate System: NAD 1983 UTM Zone 17N
2. Site features are based on field observations and should be considered approximate.
3. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
4. m BGS- metres below ground surface.
5. MECP - Ministry of the Environment, Conservation and Parks
6. SCS - site condition standards

Project Location
358 Reynolds Street
Oakville, Ontario

122120345
Prepared by IP on 7/20/2021

Client/Project
TRANSMETRO LIMITED/SOIL REMEDIATION PROGRAM

Figure No.
B.3

Title
Approximate Soil Screening Sampling Locations on the Walls of the PHC Excavation

AA SOUTH

AA' NORTH

See Figure No. B.6 for Details of PHC in Soil Removed from This Area

Basement Floor

Elevation (m RTD)

99
98
97
96

TP21-1-1	
	2.0 m (04/14/2021)
Mercury	< SCS

N1	
	1.7 m (04/03/2020)
Mercury	< SCS

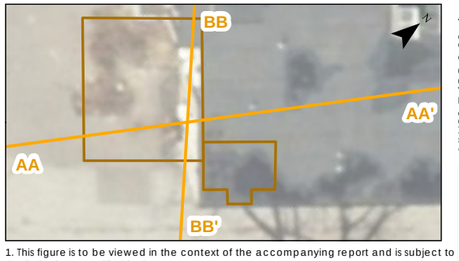
E1R1	
	1.7 m (04/03/2020)
Mercury	< SCS

B1R1	
	2.3 m (04/03/2020)
Mercury	< SCS

N2	
	2.9 m (04/03/2020)
Mercury	< SCS

W4	
	3.0 m (05/04/2021)
Mercury	< SCS

B2	
	3.6 m (04/03/2020)
Mercury	< SCS



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.

MW20-7 (OS 0.90m)

Well ID (OS - offset)

Sand

Stratigraphy

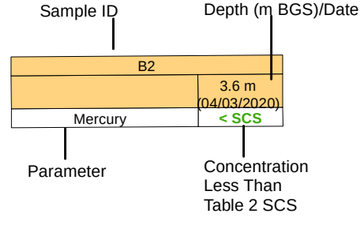
Legend

- Screening Soil Sample Submitted for Laboratory Analysis
- Building Footprint Extents
- Approximate Extent of Excavation (Stantec, October 2020)
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)

5x Vertical Exaggeration

0 2 4 m

1:100 (At original document size of 11x17)



Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 8/9/2021

Client/Project
TRANSMETRO LIMITED, SOIL REMEDATION PROGRAM

Figure No.
B.4

Title
Cross-Section AA-AA' with Summary of Post Remediation Analytical Results for Mercury Excavation

BB WEST

BB' EAST

Elevation (m RTD)

99
98
97

W1	
	2.0 m (04/03/2020)
Mercury	< SCS

N3	
	2.0 m (04/03/2020)
Mercury	< SCS

N1	
	2.0 m (04/03/2020)
Mercury	< SCS

W2	
	2.7 m (04/03/2020)
Mercury	< SCS

N4	
	2.9 m (04/03/2020)
Mercury	< SCS

W4	
	3.0 m (05/04/2021)
Mercury	< SCS

B1	
	3.6 m (04/03/2020)
Mercury	< SCS

See Figure B.7 for Details of PHC in Soil Removed from this Area

W1 N3 N1 S1R1 E1R1 B1R1 W2 N4 N2 W4 E2 B1 B2

S1R1	
	1.7 m (04/03/2020)
Mercury	< SCS

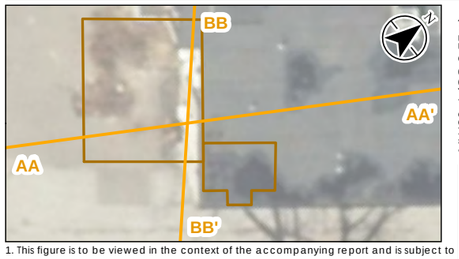
E1R1	
	1.7 m (04/03/2020)
Mercury	< SCS

B1R1	
	2.3 m (04/03/2020)
Mercury	< SCS

N2	
	2.9 m (04/03/2020)
Mercury	< SCS

E2	
	3.0 m (04/03/2020)
Mercury	< SCS

B2	
	3.6 m (04/03/2020)
Mercury	< SCS



MW20-4 (OS 3.55m)

Sand

Well ID (OS - offset)

Stratigraphy

1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.

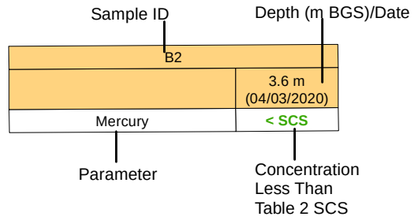
Legend

- Screening Soil Sample Submitted for Laboratory Analysis
- Building Footprint Extent
- Site Boundary
- Approximate Extent of Excavation (Stantec, October 2020) Offset 0.25 m from BB-BB'
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)

5x Vertical Exaggeration

0 2 4 m

1:100 (At original document size of 11x17)



Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 8/9/2021

Client/Project
TRANSMETRO LIMITED, SOIL REMEDIATION PROGRAM

Figure No.
B.5

Title
Cross-Section BB-BB' with Summary of Post Remediation Soil Analytical Results for Mercury Excavation

AA SOUTH

Approximately 40 m

AA' NORTH

Elevation (m RTD)

100
99
98
97
96

W5-2 | 3.0 m (05/04/2021) | PHCs | < SCS

W7-2 | 2.0 m (05/04/2021) | PHCs | < SCS

QC-02/EX1-52 | 3.0 m (06/10/2021) | PHCs | < SCS

Cell3-EW-3.5 | 3.0 m (06/09/2021) | PHCs | < SCS

EX1-E1 | 3.0 m (06/10/2021) | PHCs | < SCS

W7-2 W5-2 W3 QC-02/EX1-52 Cell3-EW-3.5 EX1-E1 W4 Cell3-NW-35

Basement Floor

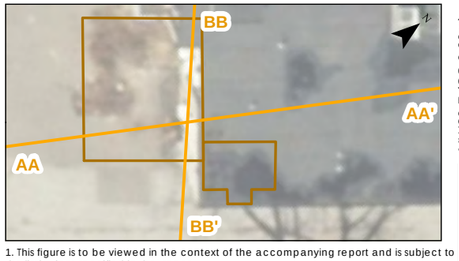
See Figure No. B.4 for Details of Mercury in Soil Removed From this Area

W3 | 2.0 m (05/04/2021) | PHCs | < SCS

W4 | 2.5 m (05/04/2021) | PHCs | < SCS

Cell3-NW-35 | 3.5 m (06/09/2021) | PHCs | < SCS

No samples collected on competent bedrock



1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.

MW20-7 (OS 0.90m)

Sand

Well ID (OS - offset)

Stratigraphy

Legend

- Screening Soil Sample Submitted for Laboratory Analysis
- Building Footprint Extents
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Asphalt
- Concrete
- Silt
- Fill (sand)
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)

5x Vertical Exaggeration

0 3 6 m

1:150 (At original document size of 11x17)

Sample ID | Depth (m BGS)/Date

W3 | 2.0 m (05/04/2021) | PHCs | < SCS

Parameter | Concentration Less Than Table 2 SCS

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 8/9/2021

Client/Project
TRANSMETRO LIMITED, SOIL REMEDIATION PROGRAM

Figure No.
B.6

Title
Cross-Section AA-AA' with Summary of Post Remediation Analytical Results for PHC Excavation

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BB
WEST

BB'
EAST

Elevation (m RTD)

100
99
98
97
96

See Figure No. B.5 for Details of Mercury in Soil Removed from this Area

W7-2 | 2.0 m (05/04/2021) | PHCs | < SCS

W1-2 | 2.0 m (05/04/2021) | PHCs | < SCS

W1-2 W7-2 W5-2

EX1-W1 QC-02/EX1-52 Cell3-EW-3.5

EX1-E1

No samples collected on competent bedrock

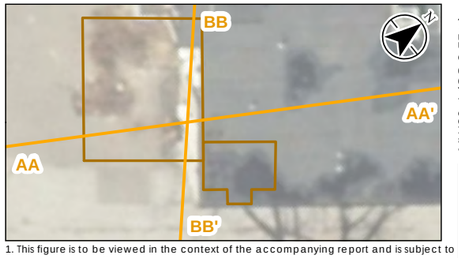
EX1-W1 | 3.0 m (06/10/2021) | PHCs | < SCS

QC-02/EX1-52 | 3.0 m (06/10/2021) | PHCs | < SCS

W5-2 | 3.0 m (05/04/2021) | PHCs | < SCS

Cell3-EW-3.5 | 3.0 m (06/09/2021) | PHCs | < SCS

EX1-E1 | 3.0 m (06/10/2021) | PHCs | < SCS



MW20-4 (OS 3.55m)

Well ID (OS - offset)

Sand

Stratigraphy

1. This figure is to be viewed in the context of the accompanying report and is subject to the limitations specified in that report.
2. m RTD - metres relative to datum
3. Refer to Figure 6 for cross-section location.
4. Refer to Borehole Logs for detailed stratigraphy.
5. MECP - Ministry of Environment, Conservation and Parks.
6. SCS - Site Condition Standards.

Legend

- Screening Soil Sample Submitted for Laboratory Analysis
- Building Footprint Extent
- Site Boundary
- Approximate Ground Surface
- Approximate Extent of Excavation (Stantec, May/June 2021)
- Concrete
- Silty/Sandy Gravel
- Gravel
- Sand
- Silt Till
- Competent Bedrock
- Soil Sample Tested Below Regulatory Standards (MECP Table 2 SCS)

5x Vertical Exaggeration

0 3 6 m

1:150 (At original document size of 11x17)

Sample ID | Depth (m BGS)/Date

Cell3-EW-3.5 | 3.0 m (06/09/2021) | PHCs | < SCS

Parameter | Concentration Less Than Table 2 SCS

Stantec

Project Location
Oakville, Ontario

122120345
Prepared by IP on 8/9/2021

Client/Project
TRANSMETRO LIMITED, SOIL REMEDIATION PROGRAM

Figure No.
B.7

Title
Cross-Section BB-BB' with Summary of Post Remediation Soil Analytical Results for PHC Excavation

\\cd1224-f02\work_group\01221\active\122120345\03_data\gis_cad\gis\mxds\Remediation\report_figures\Excavation\2020\11\20201119\Update\122120345_Excavation_FigB7_X_Section_BB.mxd Revised: 2021-08-09 By: ipodrug

B.6 LABORATORY CERTIFICATES OF ANALYSIS

Your Project #: 122120345
Your C.O.C. #: 774846-02-01

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/26
Report #: R6384749
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C0Q8760
Received: 2020/10/14, 13:25

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	5	2020/10/15	2020/10/15	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752

==========

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C0Q8760
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		NWO065	NWO066	NWO067	NWO068	NWO069		
Sampling Date		2020/10/14 10:50	2020/10/14 10:50	2020/10/14 10:55	2020/10/14 10:55	2020/10/14 11:15		
COC Number		774846-02-01	774846-02-01	774846-02-01	774846-02-01	774846-02-01		
	UNITS	**EX20-N1**	**EX20-N2**	**EX20-E1**	**EX20-E2**	**EX20-B2**	**RDL**	**QC Batch**
Metals								
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	1.0	<0.050	<0.050	0.050	7001395

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0Q8760
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

TEST SUMMARY

BV Labs ID: NWO065 **Collected:** 2020/10/14
Sample ID: EX20-N1 **Shipped:**
Matrix: Soil **Received:** 2020/10/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7001395	2020/10/15	2020/10/15	Viviana Canzonieri

BV Labs ID: NWO066 **Collected:** 2020/10/14
Sample ID: EX20-N2 **Shipped:**
Matrix: Soil **Received:** 2020/10/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7001395	2020/10/15	2020/10/15	Viviana Canzonieri

BV Labs ID: NWO067 **Collected:** 2020/10/14
Sample ID: EX20-E1 **Shipped:**
Matrix: Soil **Received:** 2020/10/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7001395	2020/10/15	2020/10/15	Viviana Canzonieri

BV Labs ID: NWO068 **Collected:** 2020/10/14
Sample ID: EX20-E2 **Shipped:**
Matrix: Soil **Received:** 2020/10/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7001395	2020/10/15	2020/10/15	Viviana Canzonieri

BV Labs ID: NWO069 **Collected:** 2020/10/14
Sample ID: EX20-B2 **Shipped:**
Matrix: Soil **Received:** 2020/10/14

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7001395	2020/10/15	2020/10/15	Viviana Canzonieri

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0Q8760
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

GENERAL COMMENTS

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

Package 1	11.0°C

Revised Report [2020/10/26]: Sample ID EX20-H3 and EX20-H4 updated to EX20-N1 and EX20-N2, as per client request.

Results relate only to the items tested.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0Q8760
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7001395	VIV	Matrix Spike	Acid Extractable Mercury (Hg)	2020/10/15		78	%	75 - 125
7001395	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2020/10/15		91	%	80 - 120
7001395	VIV	Method Blank	Acid Extractable Mercury (Hg)	2020/10/15	<0.050		ug/g	

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.

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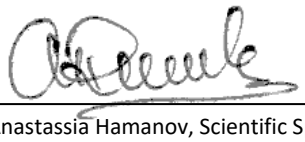
BV Labs Job #: C0Q8760
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

Page of

STANTEC CHAIN OF CUSTODY RECORD

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#3072 Stantec Consulting Ltd	Company Name:		Quotation #:	C01624	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Sean Brown	Task #:			774846
Address:	675 Cochrane Dr W. West Tower Suite 300	Address:		Project #:	~~121510049~~ 122035	COC #:	Project Manager:
	Markham ON L3R 0B8			Profit Centre:	1221	C#774846-02-01	Ronklin Gracian
Phone:	(905) 944-7777 Fax: (905) 479-9326	Phone:	(905) 415-6342 Fax:	Site #:			
Email:	SAPinvoices@Stantec.com	Email:	sean.brown@stantec.com	Sampled By:	SB		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☒ Table 2 ☒ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality _____	
☐ Table ___	☐ PWQO	
	☐ Other _____	

Include Criteria on Certificate of Analysis (Y/N)? _____

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	PAH Compounds in Water by GC/MS (SIM)	Diesel/Jet Fuel - CWS-PHC	Metals in Soil by ICP-OES	# of Bottles	Comments
1		EQ20-H3	10/14/20	10:50 AM	Soil			✓	1	
2		EQ20-H4		10:50 AM				✓	1	
3		EQ20-E1		10:55 AM				✓	1	
4		EQ20-E2		10:55 AM				✓	1	
5		EQ20-B2		11:15 AM				✓	1	
6										
7										
8										
9										
10										

14-Oct-20 13:25
Ronklin Gracian
C0Q8760
GK1 ENV-1328

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: 10/15/20 Time Required: 5 PM
Rush Confirmation Number: RQ#013-01
(call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Rick Cuthbert	2020/10/14	11:30am	DIPIKA SINGH	2020/10/14	13:25	

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	11/13/9	Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

I Ce

Your Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/26
Report #: R6384750
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C0R2497
Received: 2020/10/16, 08:10

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	5	2020/10/19	2020/10/19	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

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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 BV Labs, results relate to the supplied samples tested.

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.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752

==========

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BV Labs Job #: C0R2497
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC
Sampler Initials: RU

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		NXH885	NXH886	NXH887	NXH888	NXH889		
Sampling Date		2020/10/15 10:00	2020/10/15 10:00	2020/10/15 10:05	2020/10/15 10:05	2020/10/15 11:00		
	UNITS	**EX20-N3**	**EX20-N4**	**EX20-W1**	**EX20-W2**	**EX20-B1**	**RDL**	**QC Batch**
Metals								
Acid Extractable Mercury (Hg)	ug/g	0.085	0.079	<0.050	<0.050	<0.050	0.050	7007209

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R2497
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC
Sampler Initials: RU

TEST SUMMARY

BV Labs ID: NXH885
Sample ID: EX20-N3
Matrix: Soil
Collected: 2020/10/15
Shipped:
Received: 2020/10/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7007209	2020/10/19	2020/10/19	Viviana Canzonieri

BV Labs ID: NXH886
Sample ID: EX20-N4
Matrix: Soil
Collected: 2020/10/15
Shipped:
Received: 2020/10/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7007209	2020/10/19	2020/10/19	Viviana Canzonieri

BV Labs ID: NXH887
Sample ID: EX20-W1
Matrix: Soil
Collected: 2020/10/15
Shipped:
Received: 2020/10/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7007209	2020/10/19	2020/10/19	Viviana Canzonieri

BV Labs ID: NXH888
Sample ID: EX20-W2
Matrix: Soil
Collected: 2020/10/15
Shipped:
Received: 2020/10/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7007209	2020/10/19	2020/10/19	Viviana Canzonieri

BV Labs ID: NXH889
Sample ID: EX20-B1
Matrix: Soil
Collected: 2020/10/15
Shipped:
Received: 2020/10/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7007209	2020/10/19	2020/10/19	Viviana Canzonieri

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R2497
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC
Sampler Initials: RU

GENERAL COMMENTS

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

Package 1	3.0°C

Revised Report [2020/10/26]: Sample ID EX20-S3 and EX20-S4 updated to EX20-N3 and EX20-N4, as per client request.

Results relate only to the items tested.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R2497
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC
Sampler Initials: RU

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7007209	VIV	Matrix Spike	Acid Extractable Mercury (Hg)	2020/10/19		88	%	75 - 125
7007209	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2020/10/19		81	%	80 - 120
7007209	VIV	Method Blank	Acid Extractable Mercury (Hg)	2020/10/19	<0.050		ug/g	

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.

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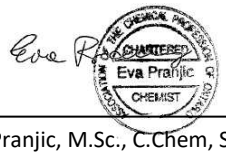
BV Labs Job #: C0R2497
Report Date: 2020/10/26

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 2146 CONCESSION ROAD 4 IN BREC
Sampler Initials: RU

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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For Service Group specific validation please refer to the Validation Signature Page.

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STANTEC CHAIN OF CUSTODY RECORD

Page of

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#3072 Stantec Consulting Ltd	Company Name:		Quotation #:	B77373	BV Labs Job #:	Bottle Order #:
Contact Name:	Accounts Payable	Contact Name:	Sean Brown	Task #:			765662
Address:	675 Cochrane Dr W. West Tower Suite 300	Address:		Project #:	~~122151049~~ 122120345	COC #:	Project Manager:
	Markham ON L3R 0B8			Profit Centre:	1221	C#765662-12-01	Ronklin Gracian
Phone:	(905) 944-7777 Fax: (905) 479-9326	Phone:	(905) 415-6342 Fax:	Site #:	2146 Concession Road 4 in Brec		
Email:	SAPinvoices@Stantec.com	Email:	sean.brown@stantec.com	Sampled By:	RL		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality _____	
☐ Table ___	☐ PWQO	
	☐ Other _____	

Include Criteria on Certificate of Analysis (Y/N)? _____

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: 10/16/20 Time Required: 5:00 PM
Rush Confirmation Number: RGN1015-01 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O.Reg 153: PHCs, BTEX/F1-F4	Mercury	# of Bottles	Comments
1		EX20-#3	10/15/20	10:00 AM	Soil			✓	1	
2		EX20-B4		— " —				✓	1	
3		EX20-W1		10:05 AM				✓	1	
4		EX20-W2		— " —				✓	1	
5		EX20-B1		11:00 AM				✓	1	
6										
7										
8										
9										
10										

RUSH

16-Oct-20 08:10
Ronklin Gracian
C0R2497

'REC'D IN WATERLOO

nice

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
Rick Cluthe	2020/10/15	11:30 AM	[illegible]	2020/10/16	08:10		Time Sensitive	Temperature (°C) on Recei	Custody Seal Present / Intact	Yes / No
				2020/10/16	17:05			3 | 3 | 5 °C		Y

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

* SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

7/7/7

Bureau Veritas Canada (2019) Inc.

WB # 205372

Your Project #: 122120345
Your C.O.C. #: 787199-03-01

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/11/03
Report #: R6396619
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0S9378
Received: 2020/11/02, 14:17

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	5	2020/11/03	2020/11/03	CAM SOP-00447	EPA 6020B m

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs 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 BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs 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.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs 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 BV Labs, unless otherwise agreed in writing. BV Labs 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 BV Labs, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Your C.O.C. #: 787199-03-01

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/11/03
Report #: R6396619
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0S9378
Received: 2020/11/02, 14:17

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C0S9378
Report Date: 2020/11/03

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		OAY164	OAY165	OAY166	OAY167	OAY168		
Sampling Date		2020/11/02 09:55	2020/11/02 09:40	2020/11/02 09:50	2020/11/02 10:00	2020/11/02 09:50		
COC Number		787199-03-01	787199-03-01	787199-03-01	787199-03-01	787199-03-01		
	UNITS	**EX20-N1-R1**	**EX20-E1-R1**	**EX20-B1-R1**	**EX20-S1-R1**	**QC-01**	**RDL**	**QC Batch**
Metals								
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.15	<0.050	<0.050	0.050	7034757

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

TEST SUMMARY

BV Labs ID: OAY164 **Collected:** 2020/11/02
Sample ID: EX20-N1-R1 **Shipped:**
Matrix: Soil **Received:** 2020/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7034757	2020/11/03	2020/11/03	Azita Fazaeli

BV Labs ID: OAY165 **Collected:** 2020/11/02
Sample ID: EX20-E1-R1 **Shipped:**
Matrix: Soil **Received:** 2020/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7034757	2020/11/03	2020/11/03	Azita Fazaeli

BV Labs ID: OAY166 **Collected:** 2020/11/02
Sample ID: EX20-B1-R1 **Shipped:**
Matrix: Soil **Received:** 2020/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7034757	2020/11/03	2020/11/03	Azita Fazaeli

BV Labs ID: OAY167 **Collected:** 2020/11/02
Sample ID: EX20-S1-R1 **Shipped:**
Matrix: Soil **Received:** 2020/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7034757	2020/11/03	2020/11/03	Azita Fazaeli

BV Labs ID: OAY168 **Collected:** 2020/11/02
Sample ID: QC-01 **Shipped:**
Matrix: Soil **Received:** 2020/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7034757	2020/11/03	2020/11/03	Azita Fazaeli

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0S9378
Report Date: 2020/11/03

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

GENERAL COMMENTS

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

Package 1	4.0°C

Results relate only to the items tested.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0S9378
Report Date: 2020/11/03

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7034757	AFZ	Matrix Spike	Acid Extractable Mercury (Hg)	2020/11/03		84	%	75 - 125
7034757	AFZ	Spiked Blank	Acid Extractable Mercury (Hg)	2020/11/03		81	%	80 - 120
7034757	AFZ	Method Blank	Acid Extractable Mercury (Hg)	2020/11/03	<0.050		ug/g	
7034757	AFZ	RPD	Acid Extractable Mercury (Hg)	2020/11/03	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.

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).

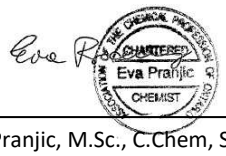
Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0S9378
Report Date: 2020/11/03

Stantec Consulting Ltd
Client Project #: 122120345
Sampler Initials: SB

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

RUSH!

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvlabs.com

STANTEC CHAI

02-Nov-20 14:17
Ronklin Gracian

C0S9378

age of

Order #:

787199

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:	
Company Name	#3072 Stantec Consulting Ltd	Company Name		Quotation #	C01624
Contact Name	Accounts Payable	Contact Name	Sean Brown	Task #	
Address	675 Cochrane Dr W. West Tower Suite 300	Address		Project #	123454453 122D345
	Markham ON L3R 0B8			Profit Centre	1221
Phone	(905) 944-7777 Fax (905) 479-9326	Phone	(905) 415-6342 Fax	Site #	
Email	SAPinvoices@Stantec.com	Email	sean.brown@stantec.com	Sampled By	SB

ENV 600

COC #: C#787199-03-01

Project Manager: Ronklin Gracian

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☒ Table 2 ☐ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality	
☐ Table	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)?

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: 03/11/20 Time Required: 5 PM
Rush Confirmation Number: RGN1102-01 (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PHCs, BTEX/F1-F4	O Reg 153 PAHs	Mercury	# of Bottles	Comments
1		EL20-N1-R1	02/11/20	9:55	Soil				✓	1	
2		EL20-E1-R1		9:40					✓	1	
3		EL20-B1-R1		9:50					✓	1	
4		EL20-S1-R1		10					✓	1	
5		QC-01		9:00					✓		
6											
7											
8											
9											
10											

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
	02/11/20	11:30		2020/11/02	1417	

Laboratory Use Only

Time Sensitive

Temperature (°C) on Receipt: 5 | 3 | 4

Custody Seal	Yes	No
Present		
Intact		

White: BV Labs Yellow: Client

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

Bureau Veritas Canada (2019) Inc.

Your Project #: 122120345
Site Location: REYNOLDS STREET
Your C.O.C. #: 153041

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/22
Report #: R6380000
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R6627
Received: 2020/10/21, 12:20

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Strong Acid Leachable Metals by ICPMS	3	2020/10/22	2020/10/22	CAM SOP-00447	EPA 6020B m

Remarks:

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

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

Your Project #: 122120345
Site Location: REYNOLDS STREET
Your C.O.C. #: 153041

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2020/10/22
Report #: R6380000
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0R6627
Received: 2020/10/21, 12:20

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bvlabs.com
Phone# (905)817-5752
==========
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BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		NYG276	NYG277	NYG278		
Sampling Date		2020/10/21 10:10	2020/10/21 10:25	2020/10/21 10:50		
COC Number		153041	153041	153041		
	UNITS	**TP20-01-01**	**TP20-01-02**	**TP20-02-01**	**RDL**	**QC Batch**
Metals						
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	0.050	7014174

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

TEST SUMMARY

BV Labs ID: NYG276
Sample ID: TP20-01-01
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

BV Labs ID: NYG277
Sample ID: TP20-01-02
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

BV Labs ID: NYG278
Sample ID: TP20-02-01
Matrix: Soil

Collected: 2020/10/21
Shipped:
Received: 2020/10/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	7014174	2020/10/22	2020/10/22	Viviana Canzonieri

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

GENERAL COMMENTS

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

Package 1	2.3°C

Results relate only to the items tested.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7014174	VIV	Matrix Spike	Acid Extractable Mercury (Hg)	2020/10/22		85	%	75 - 125
7014174	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2020/10/22		95	%	80 - 120
7014174	VIV	Method Blank	Acid Extractable Mercury (Hg)	2020/10/22	<0.050		ug/g	
7014174	VIV	RPD	Acid Extractable Mercury (Hg)	2020/10/22	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.

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).

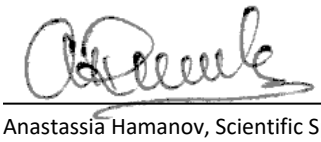
Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0R6627
Report Date: 2020/10/22

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: REYNOLDS STREET
Sampler Initials: JH

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BUREAU VERITAS

RUSH!

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 153041

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: STANTEC	Company Name: STANTEC	Quotation #:	☐ Regular TAT (5-7 days) Most analyses
Contact Name: ACCOUNTS PAYABLE	Contact Name: SEAN BROWN	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address:	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: 905 415 6342 Fax:	Site Location: REYNOLDS STREET	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email: SAPINVOICES@STANTEC.COM	Email: SEAN.BROWN@STANTEC.COM	Site #:	Date Required: 24 HOUR
		Site Location Province: ONTARIO	Rush Confirmation #: REGN1021-01
		Sampled By: JESSICA HALE	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY

Regulation 153

☒ Table 1 ☐ Res/Park ☐ Med/ Fine
☐ Table 2 ☒ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/ Other
☐ Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations

☐ CCME ☐ Sanitary Sewer Bylaw
☐ MISA ☐ Storm Sewer Bylaw
☐ PWQO Region ____
☐ Other (Specify)
☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
☐ REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL Y / N (Present / Intact)

COOLER TEMPERATURES: 1 | 3 | 3

COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 ~~METALS~~ MERCURY (Hg; CrVI, ICPMS Analysis)	HOLD- DO NOT ANALYZE
1	TP20-01-01	2020/10/21	1010	SO	1							X	
2	TP20-01-02	↓	1025	↓	1							X	
3	TP20-02-01	↓	1050	↓	1							X	
4													
5													
6													
7													
8													
9													
10													

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
JESSICA HALE	2020/10/21	1215		2020/10/21	1220

21-Oct-20 12:20
Ronklin Gracian
C0R6627

DSG ENV-1149

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and accept. and conditions.

COC-1004 (06/19)

White: BV Labs - Yellow: Client

Your Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Your C.O.C. #: 148859

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/05/05
Report #: R6622246
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B8804
Received: 2021/05/04, 14:25

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	8	N/A	2021/05/05	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	8	2021/05/04	2021/05/05	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	8	2021/05/05	2021/05/05	CAM SOP-00447	EPA 6020B m
Moisture	8	N/A	2021/05/04	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories 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.

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Your Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Your C.O.C. #: 148859

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/05/05
Report #: R6622246
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B8804
Received: 2021/05/04, 14:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752

==========

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

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

BV Labs ID		PMC326			PMC326			PMC327	PMC328		
Sampling Date		2021/05/04 11:02			2021/05/04 11:02			2021/05/04 11:05	2021/05/04 11:10		
COC Number		148859			148859			148859	148859		
	UNITS	**F1**	**RDL**	**QC Batch**	**F1 Lab-Dup**	**RDL**	**QC Batch**	**F2**	**W3**	**RDL**	**QC Batch**
Inorganics											
Moisture	%	18	1.0	7333744				14	12	1.0	7333744
BTEX & F1 Hydrocarbons											
Benzene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
Toluene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
Ethylbenzene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
o-Xylene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
p+m-Xylene	ug/g	<0.040	0.040	7333729				<0.040	<0.040	0.040	7333729
Total Xylenes	ug/g	<0.040	0.040	7333729				<0.040	<0.040	0.040	7333729
F1 (C6-C10)	ug/g	<10	10	7333729				32	<10	10	7333729
F1 (C6-C10) - BTEX	ug/g	<10	10	7333729				32	<10	10	7333729
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	120	10	7334362	130	10	7334362	850	<10	10	7334362
F3 (C16-C34 Hydrocarbons)	ug/g	140	50	7334362	130	50	7334362	670	<50	50	7334362
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7334362	<50	50	7334362	<50	<50	50	7334362
Reached Baseline at C50	ug/g	Yes		7334362	Yes		7334362	Yes	Yes		7334362
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	101		7333729				96	103		7333729
4-Bromofluorobenzene	%	100		7333729				109	87		7333729
D10-o-Xylene	%	89		7333729				87	84		7333729
D4-1,2-Dichloroethane	%	97		7333729				92	96		7333729
o-Terphenyl	%	88		7334362	78		7334362	84	83		7334362

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

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

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

BV Labs ID		PMC329	PMC330	PMC331	PMC332	PMC333		
Sampling Date		2021/05/04 11:12	2021/05/04 11:15	2021/05/04 11:21	2021/05/04 11:25	2021/05/04		
COC Number		148859	148859	148859	148859	148859		
	UNITS	**W4**	**W5-2**	**W7-2**	**W1-2**	**QC-1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	10	12	13	17	15	1.0	7333744
BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7333729
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7333729
F1 (C6-C10)	ug/g	<10	<10	<10	<10	42	10	7333729
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	42	10	7333729
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	18	<10	<10	710	10	7334362
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	610	50	7334362
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	50	7334362
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes		7334362
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	101	101	102	102	98		7333729
4-Bromofluorobenzene	%	90	89	92	91	104		7333729
D10-o-Xylene	%	85	86	89	88	93		7333729
D4-1,2-Dichloroethane	%	96	97	97	97	93		7333729
o-Terphenyl	%	80	84	80	84	83		7334362

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		PMC326	PMC327	PMC328	PMC329	PMC330	PMC331	PMC331		
Sampling Date		2021/05/04 11:02	2021/05/04 11:05	2021/05/04 11:10	2021/05/04 11:12	2021/05/04 11:15	2021/05/04 11:21	2021/05/04 11:21		
COC Number		148859	148859	148859	148859	148859	148859	148859		
	UNITS	**F1**	**F2**	**W3**	**W4**	**W5-2**	**W7-2**	**W7-2 Lab-Dup**	**RDL**	**QC Batch**
Metals										
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.24	0.084	0.15	<0.050	<0.050	0.050	7334954

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

BV Labs ID		PMC332	PMC333		
Sampling Date		2021/05/04 11:25	2021/05/04		
COC Number		148859	148859		
	UNITS	**W1-2**	**QC-1**	**RDL**	**QC Batch**
Metals					
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.071	0.050	7334954

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PMC326
Sample ID: F1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC326 Dup
Sample ID: F1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova

BV Labs ID: PMC327
Sample ID: F2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC328
Sample ID: W3
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC329
Sample ID: W4
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PMC330
Sample ID: W5-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC331
Sample ID: W7-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC331 Dup
Sample ID: W7-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri

BV Labs ID: PMC332
Sample ID: W1-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC333
Sample ID: QC-1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

GENERAL COMMENTS

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

Package 1	6.7°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7333729	LRA	Matrix Spike	1,4-Difluorobenzene	2021/05/04		97	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		103	%	60 - 140
			D10-o-Xylene	2021/05/04		89	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		92	%	60 - 140
			Benzene	2021/05/04		91	%	50 - 140
			Toluene	2021/05/04		92	%	50 - 140
			Ethylbenzene	2021/05/04		103	%	50 - 140
			o-Xylene	2021/05/04		100	%	50 - 140
			p+m-Xylene	2021/05/04		98	%	50 - 140
			F1 (C6-C10)	2021/05/04		84	%	60 - 140
7333729	LRA	Spiked Blank	1,4-Difluorobenzene	2021/05/04		100	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		101	%	60 - 140
			D10-o-Xylene	2021/05/04		95	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		91	%	60 - 140
			Benzene	2021/05/04		88	%	50 - 140
			Toluene	2021/05/04		89	%	50 - 140
			Ethylbenzene	2021/05/04		99	%	50 - 140
			o-Xylene	2021/05/04		95	%	50 - 140
			p+m-Xylene	2021/05/04		95	%	50 - 140
			F1 (C6-C10)	2021/05/04		83	%	80 - 120
7333729	LRA	Method Blank	1,4-Difluorobenzene	2021/05/04		103	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		92	%	60 - 140
			D10-o-Xylene	2021/05/04		81	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		96	%	60 - 140
			Benzene	2021/05/04	<0.020		ug/g	
			Toluene	2021/05/04	<0.020		ug/g	
			Ethylbenzene	2021/05/04	<0.020		ug/g	
			o-Xylene	2021/05/04	<0.020		ug/g	
			p+m-Xylene	2021/05/04	<0.040		ug/g	
			Total Xylenes	2021/05/04	<0.040		ug/g	
			F1 (C6-C10)	2021/05/04	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/05/04	<10		ug/g	
7333729	LRA	RPD	Benzene	2021/05/04	NC		%	50
			Toluene	2021/05/04	NC		%	50
			Ethylbenzene	2021/05/04	NC		%	50
			o-Xylene	2021/05/04	NC		%	50
			p+m-Xylene	2021/05/04	NC		%	50
			Total Xylenes	2021/05/04	NC		%	50
			F1 (C6-C10)	2021/05/04	NC		%	30
			F1 (C6-C10) - BTEX	2021/05/04	NC		%	30
7333744	MYG	RPD	Moisture	2021/05/04	2.0		%	20
7334362	KTR	Matrix Spike [PMC326-01]	o-Terphenyl	2021/05/05		84	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/05/05		94	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/05/05		86	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/05/05		84	%	50 - 130
7334362	KTR	Spiked Blank	o-Terphenyl	2021/05/05		88	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/05/05		95	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/05/05		89	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/05/05		87	%	80 - 120
7334362	KTR	Method Blank	o-Terphenyl	2021/05/05		90	%	60 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F2 (C10-C16 Hydrocarbons)	2021/05/05	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/05/05	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/05/05	<50		ug/g	
7334362	KTR	RPD [PMC326-01]	F2 (C10-C16 Hydrocarbons)	2021/05/05	3.9		%	30
			F3 (C16-C34 Hydrocarbons)	2021/05/05	11		%	30
			F4 (C34-C50 Hydrocarbons)	2021/05/05	NC		%	30
7334954	VIV	Matrix Spike [PMC331-01]	Acid Extractable Mercury (Hg)	2021/05/05		85	%	75 - 125
7334954	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2021/05/05		88	%	80 - 120
7334954	VIV	Method Blank	Acid Extractable Mercury (Hg)	2021/05/05	<0.050		ug/g	
7334954	VIV	RPD [PMC331-01]	Acid Extractable Mercury (Hg)	2021/05/05	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).

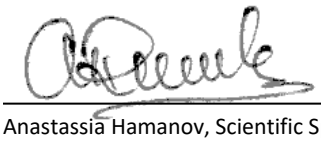
Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BUREAU VERITAS

RUSH!

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 148859

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Stantec Consulting	Company Name:	Quotation #: Stantec	☐ Regular TAT (5-7 days) Most analyses
Contact Name: Sean Brown	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address: SAME	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: 353 Reynolds St.	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email: sean.brown@Stantec.com	Email:	Site #: Oakville	Date Required: May 5/21
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY		Site Location Province: Ontario	Rush Confirmation #: RCN0504-01
		Sampled By: SCOTT DUNCAN	LABORATORY USE ONLY

Regulation 153

☐ Table 1 ☒ Res/Park ☐ Med/ Fine
☒ Table 2 ☐ Ind/Comm ☒ Coarse
☐ Table 3 ☐ Agri/ Other
☐ Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations

☐ CCME ☐ Sanitary Sewer Bylaw
☐ MISA ☐ Storm Sewer Bylaw
☐ PWQO Region
☐ Other (Specify)
☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
☐ REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Recovery								HOLD: DO NOT ANALYZE
1	F1	2021/05/04	11:02	SOIL	3	-	X	X					X								
2	F2		11:05		3	-	X	X					X								
3	W3		11:10		3	-	X	X					X								
4	W4		11:12		3	-	X	X					X								
5	W5-2		11:15		3	-	X	X					X								
6	W7-2		11:21		3	-	X	X					X								
7	W1-2		11:25		3	-	X	X					X								
8	QC-1	↓	—	↓	3	-	X	X					X								
9																					
10																					

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
SCOTT DUNCAN	2021/05/04	1:32pm		2021/05/04	14:25

COOLER TEMPERATURES	CUSTODY SEAL Y / N	
	Present	Intact
2/2/6	N	N

COOLING MEDIA PRESENT: Y / N

COMMENTS

04-May-21 14:25
Ronklin Gracian
C1B8804

DSG ENV-086

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of the terms and conditions

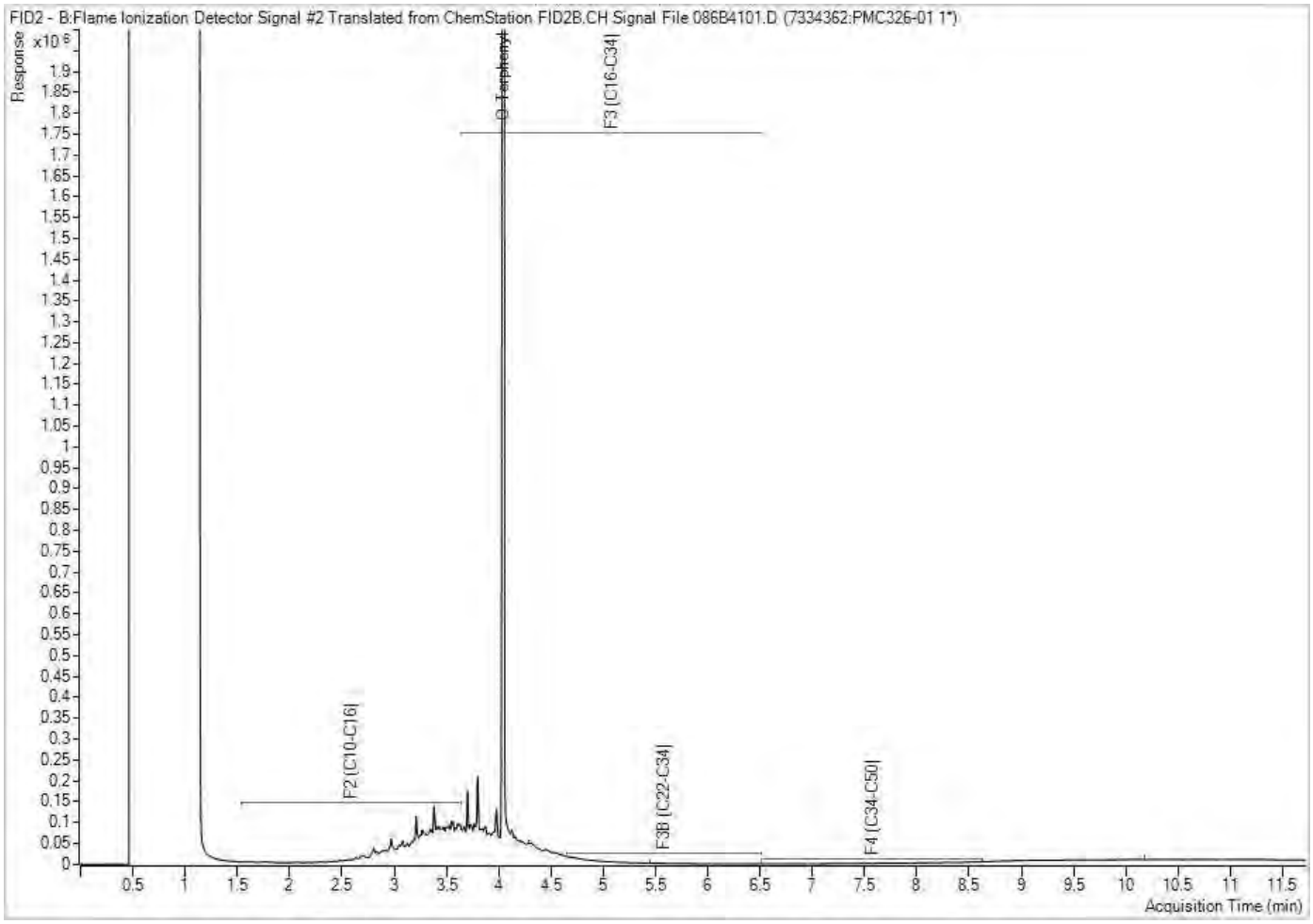
COC-1004 (06/19)

White: BV Labs - Yellow: Client

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC326

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

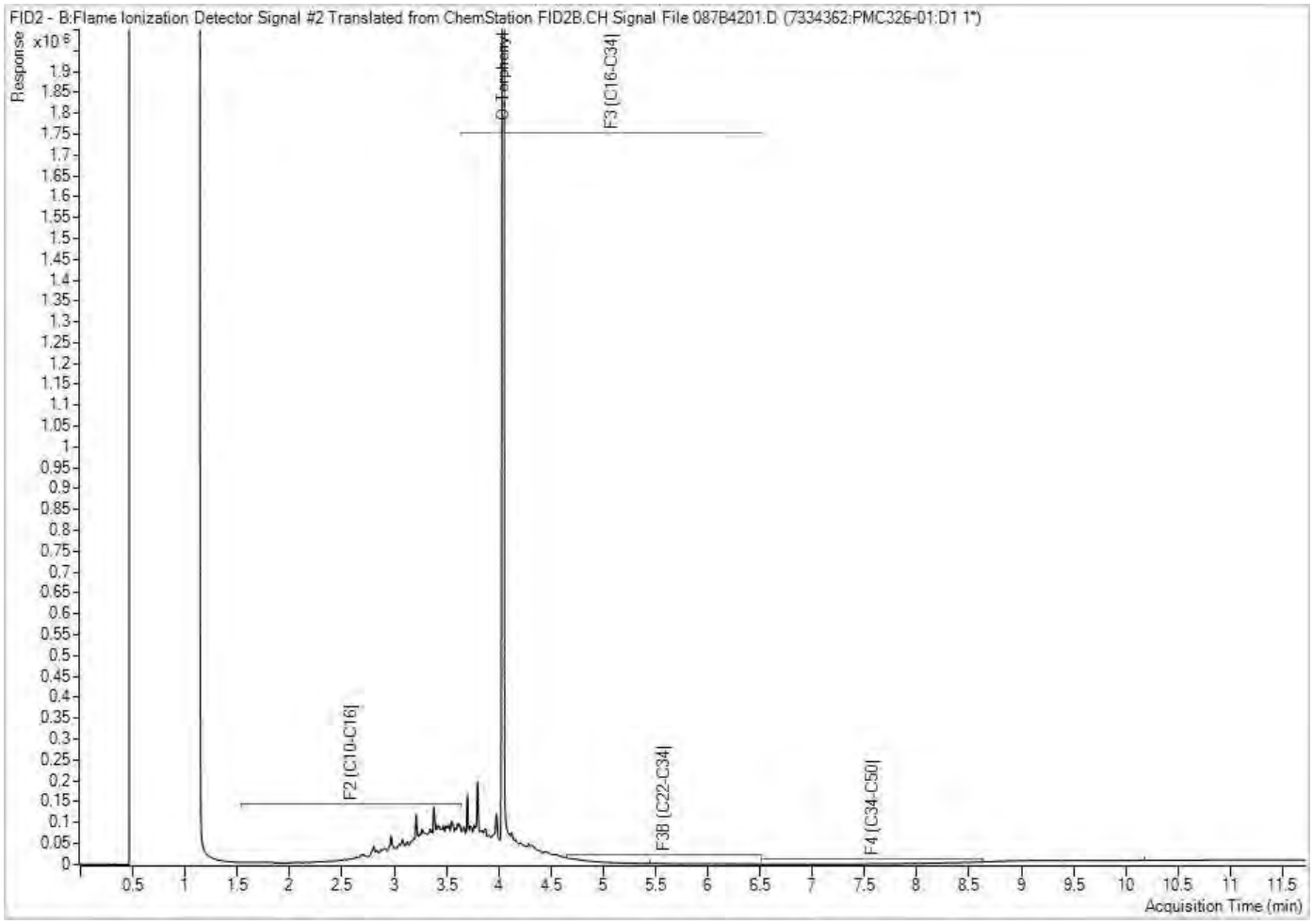


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC326 Lab-Dup

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

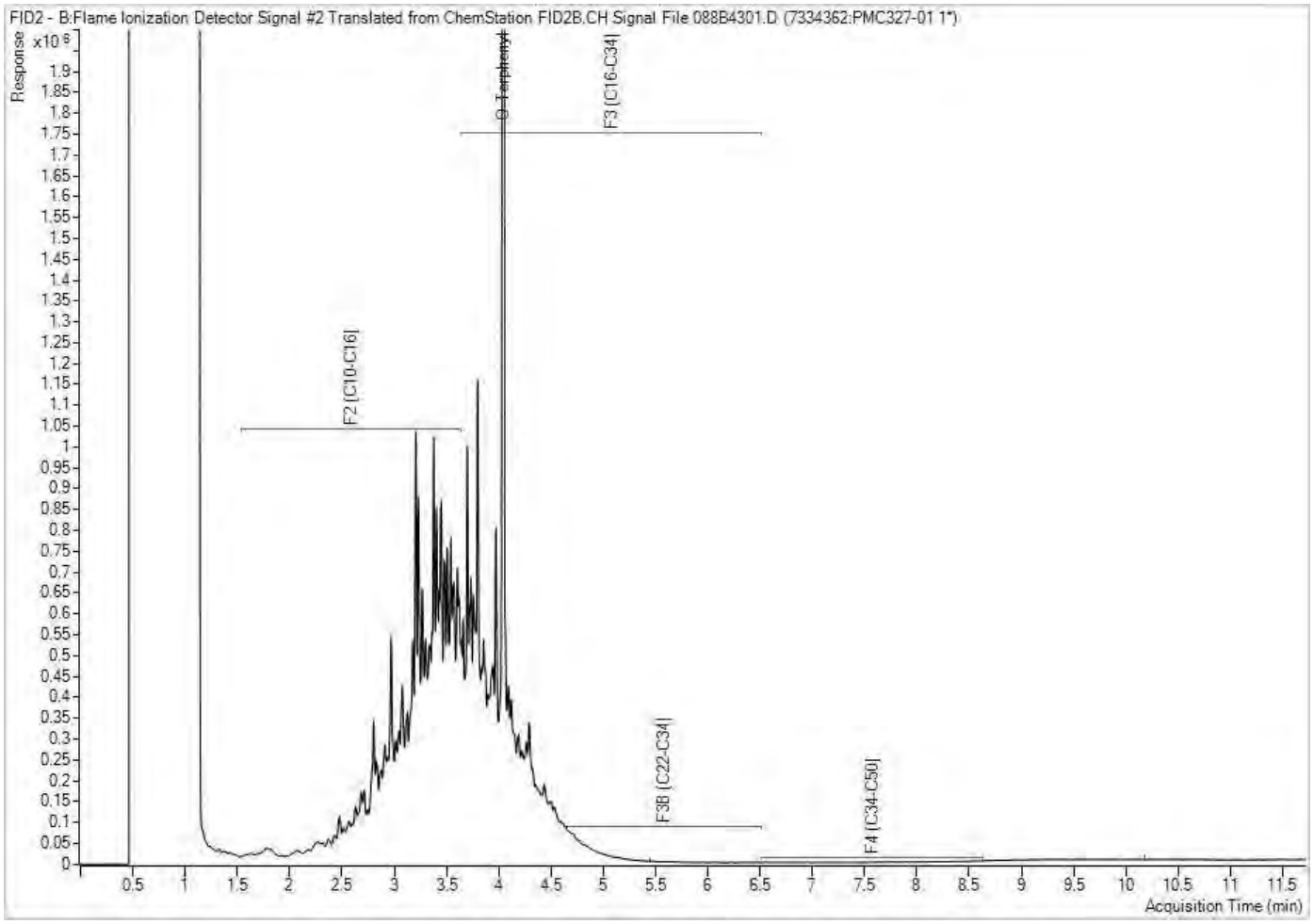


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC327

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

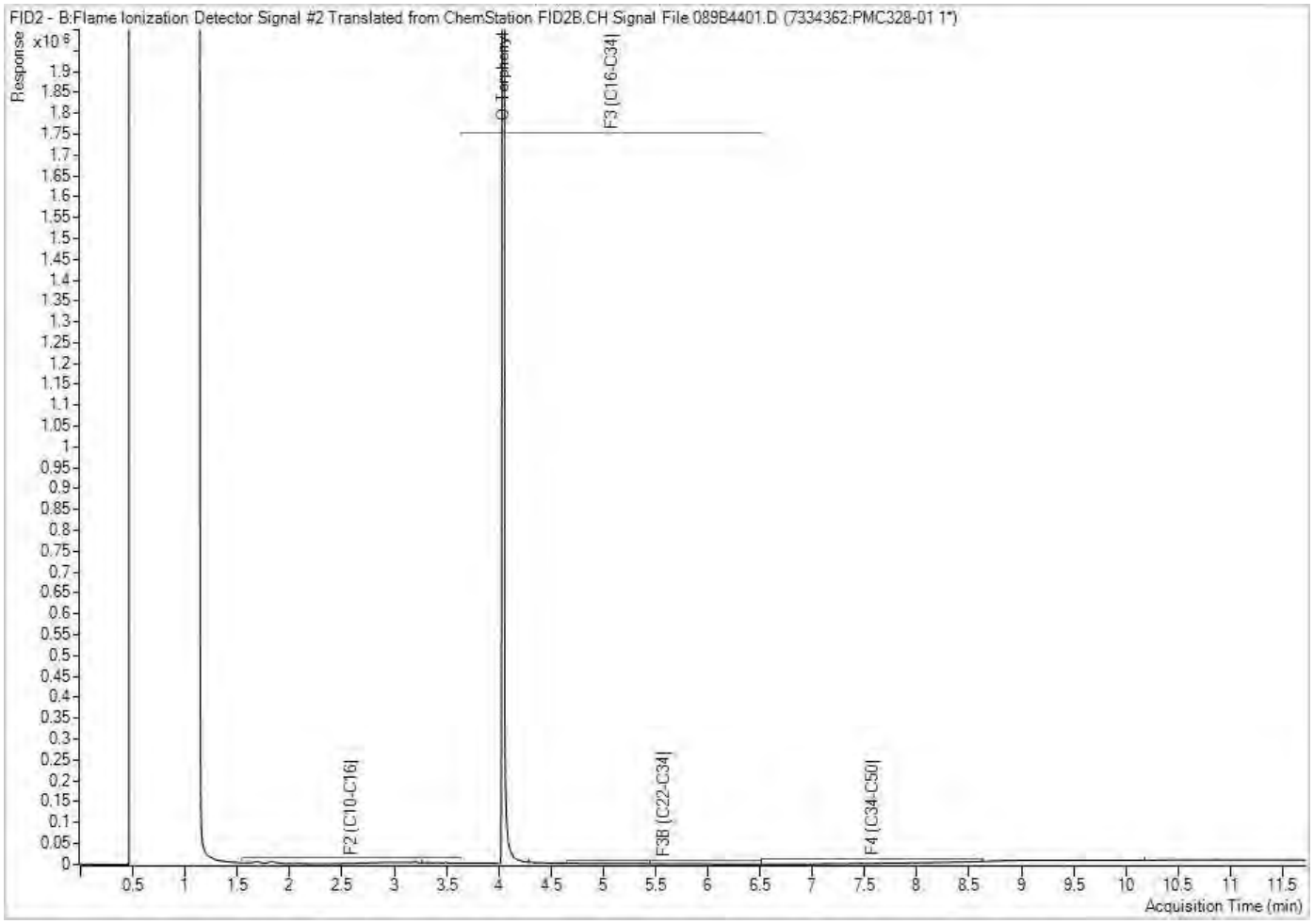


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC328

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

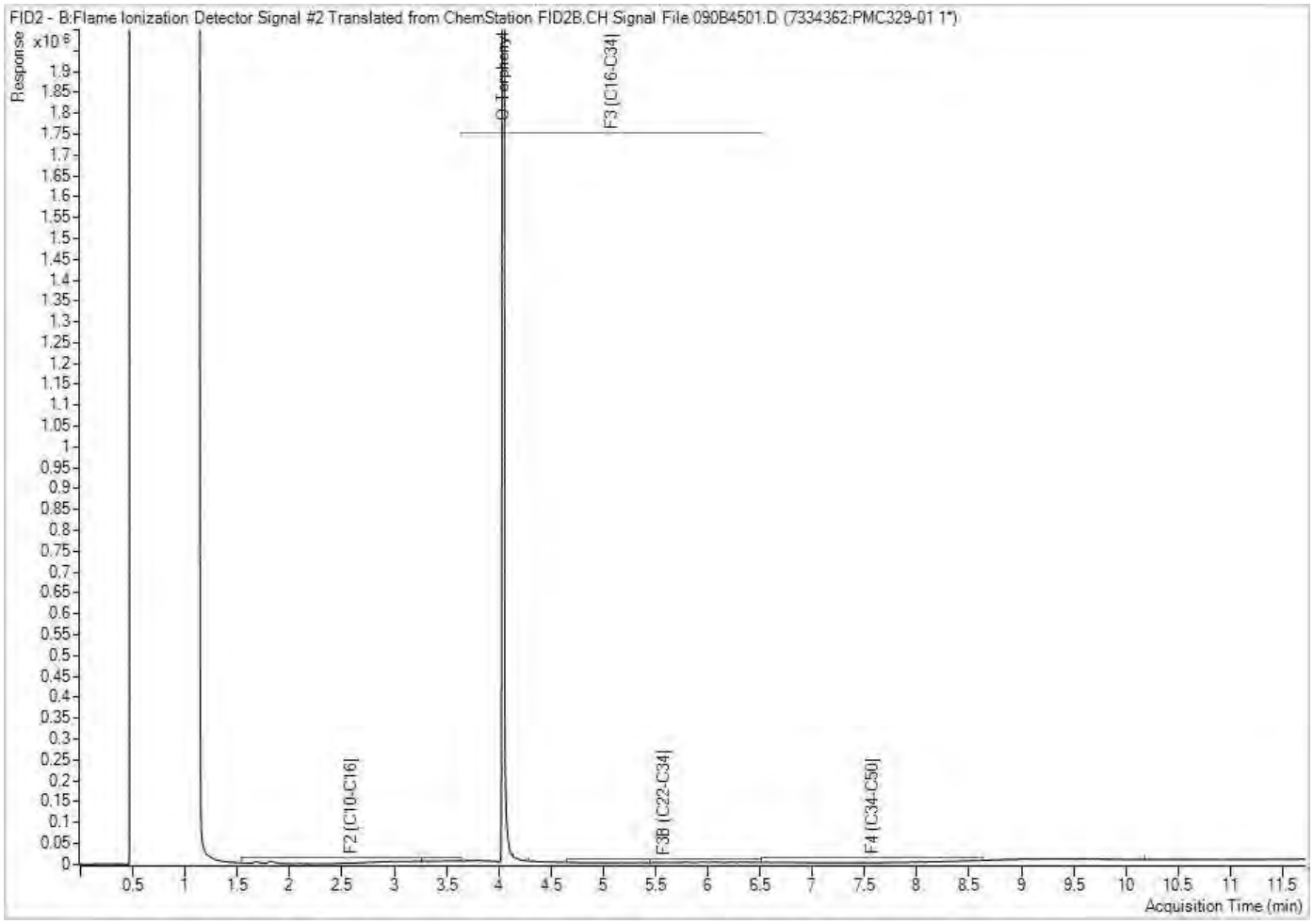


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC329

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

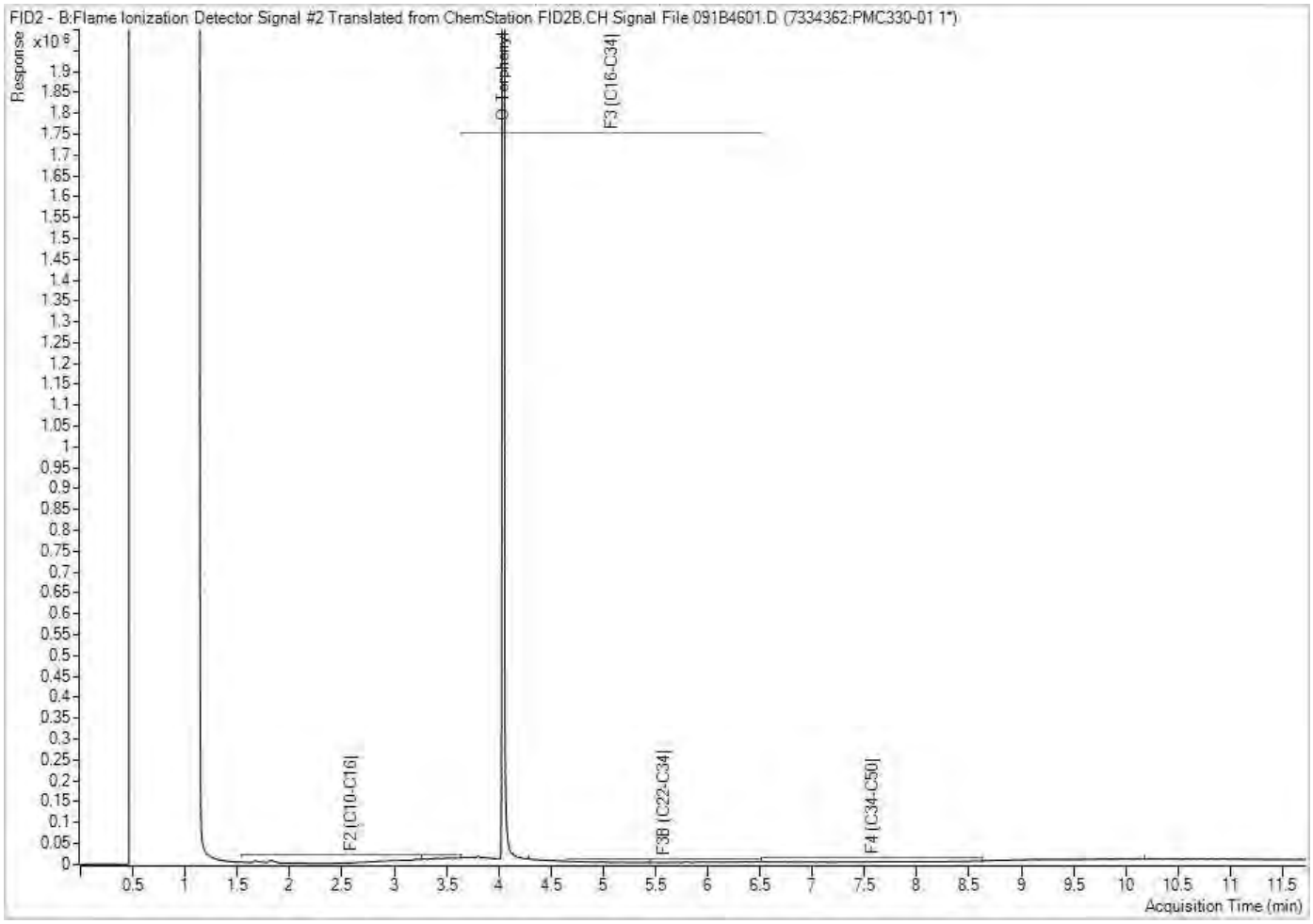


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC330

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W5-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

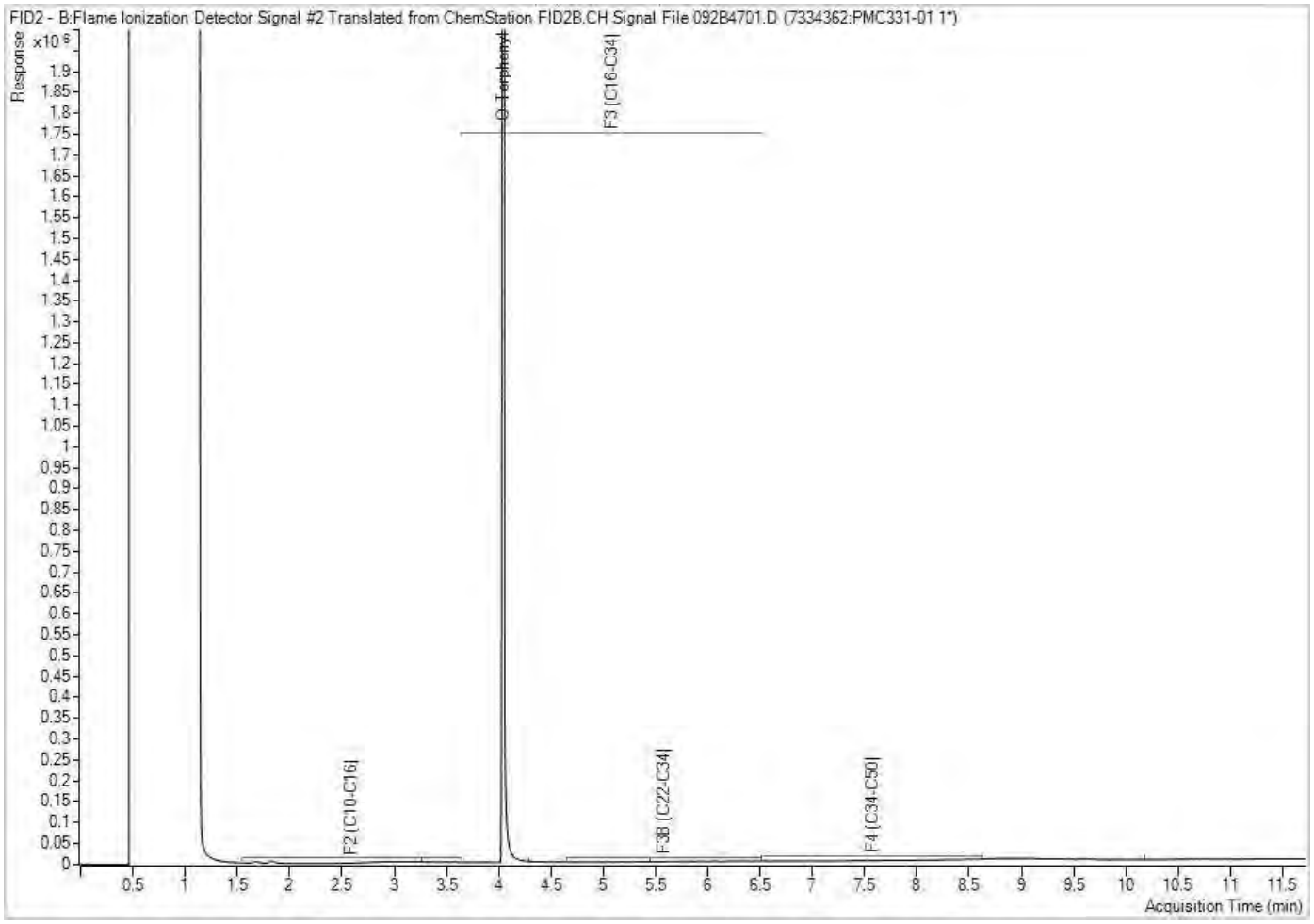


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC331

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W7-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

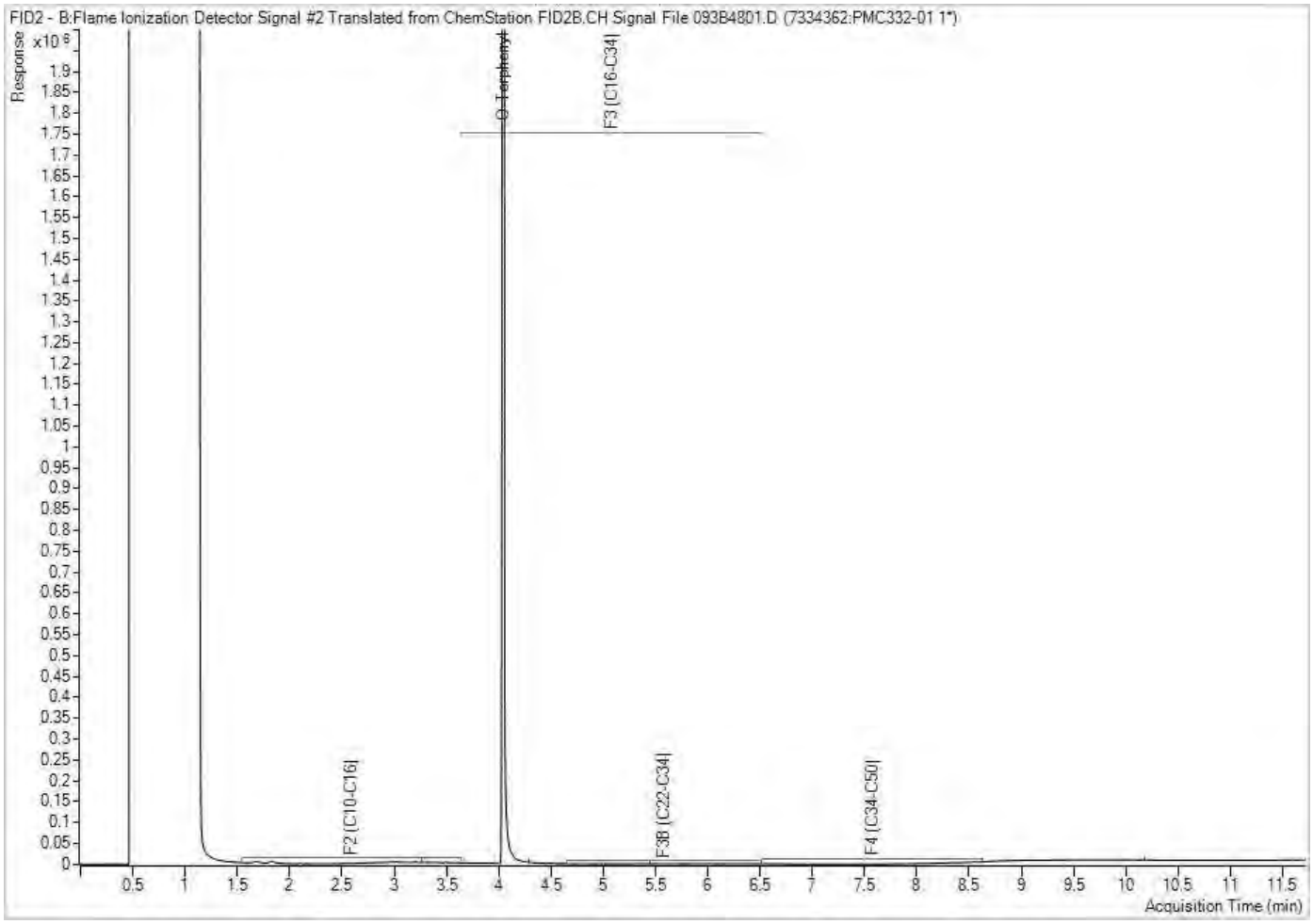


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC332

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W1-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

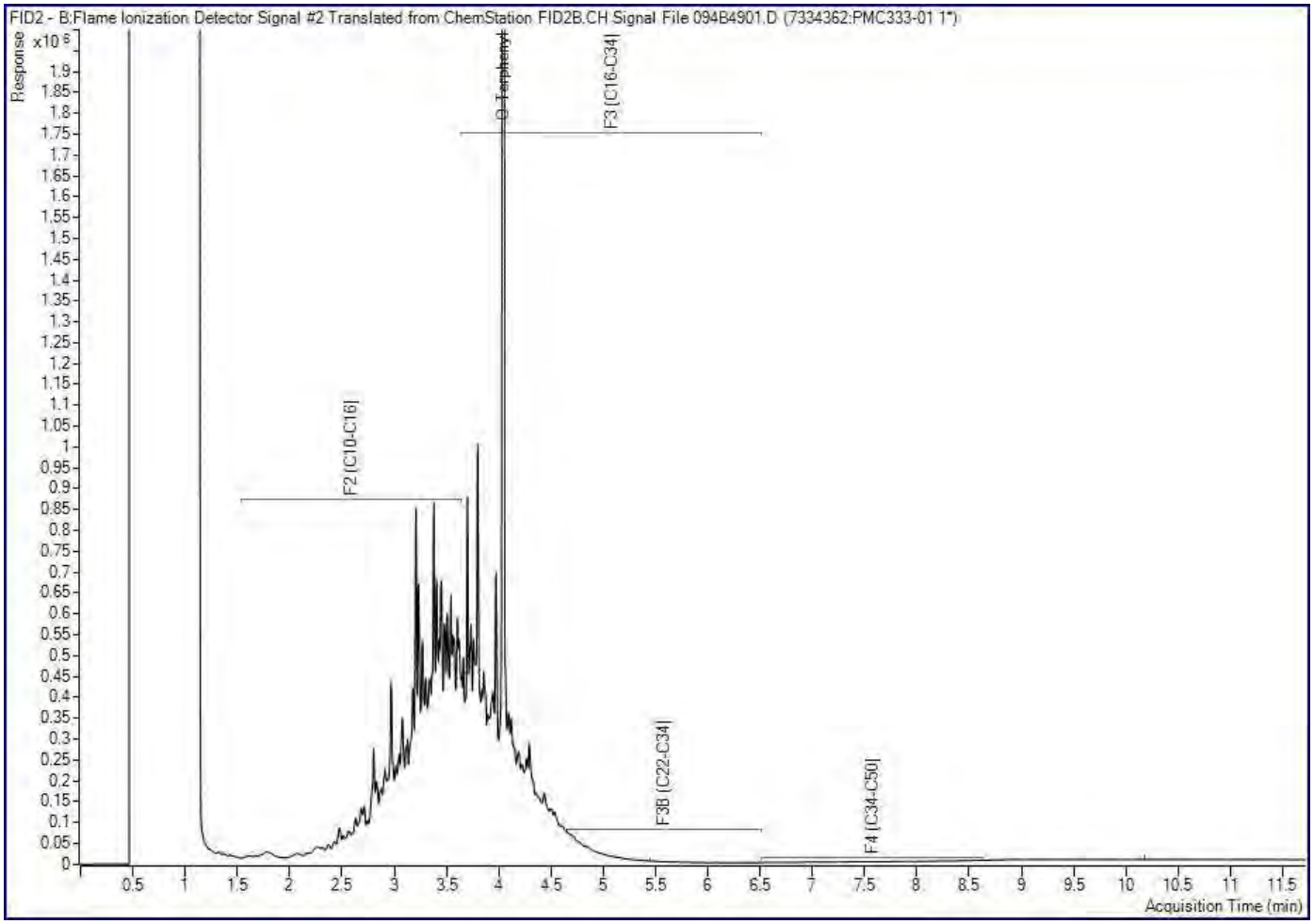


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC333

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: QC-1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Your C.O.C. #: 148859

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/05/05
Report #: R6622246
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B8804
Received: 2021/05/04, 14:25

Sample Matrix: Soil
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	8	N/A	2021/05/05	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	8	2021/05/04	2021/05/05	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	8	2021/05/05	2021/05/05	CAM SOP-00447	EPA 6020B m
Moisture	8	N/A	2021/05/04	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories 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.

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Your Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Your C.O.C. #: 148859

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/05/05
Report #: R6622246
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1B8804
Received: 2021/05/04, 14:25

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752

==========

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

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

BV Labs ID		PMC326			PMC326			PMC327	PMC328		
Sampling Date		2021/05/04 11:02			2021/05/04 11:02			2021/05/04 11:05	2021/05/04 11:10		
COC Number		148859			148859			148859	148859		
	UNITS	**F1**	**RDL**	**QC Batch**	**F1 Lab-Dup**	**RDL**	**QC Batch**	**F2**	**W3**	**RDL**	**QC Batch**
Inorganics											
Moisture	%	18	1.0	7333744				14	12	1.0	7333744
BTEX & F1 Hydrocarbons											
Benzene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
Toluene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
Ethylbenzene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
o-Xylene	ug/g	<0.020	0.020	7333729				<0.020	<0.020	0.020	7333729
p+m-Xylene	ug/g	<0.040	0.040	7333729				<0.040	<0.040	0.040	7333729
Total Xylenes	ug/g	<0.040	0.040	7333729				<0.040	<0.040	0.040	7333729
F1 (C6-C10)	ug/g	<10	10	7333729				32	<10	10	7333729
F1 (C6-C10) - BTEX	ug/g	<10	10	7333729				32	<10	10	7333729
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	120	10	7334362	130	10	7334362	850	<10	10	7334362
F3 (C16-C34 Hydrocarbons)	ug/g	140	50	7334362	130	50	7334362	670	<50	50	7334362
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7334362	<50	50	7334362	<50	<50	50	7334362
Reached Baseline at C50	ug/g	Yes		7334362	Yes		7334362	Yes	Yes		7334362
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	101		7333729				96	103		7333729
4-Bromofluorobenzene	%	100		7333729				109	87		7333729
D10-o-Xylene	%	89		7333729				87	84		7333729
D4-1,2-Dichloroethane	%	97		7333729				92	96		7333729
o-Terphenyl	%	88		7334362	78		7334362	84	83		7334362

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

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

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

BV Labs ID		PMC329	PMC330	PMC331	PMC332	PMC333		
Sampling Date		2021/05/04 11:12	2021/05/04 11:15	2021/05/04 11:21	2021/05/04 11:25	2021/05/04		
COC Number		148859	148859	148859	148859	148859		
	UNITS	**W4**	**W5-2**	**W7-2**	**W1-2**	**QC-1**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	10	12	13	17	15	1.0	7333744
BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7333729
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7333729
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	7333729
F1 (C6-C10)	ug/g	<10	<10	<10	<10	42	10	7333729
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	42	10	7333729
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<10	18	<10	<10	710	10	7334362
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	610	50	7334362
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	<50	50	7334362
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes	Yes		7334362
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	101	101	102	102	98		7333729
4-Bromofluorobenzene	%	90	89	92	91	104		7333729
D10-o-Xylene	%	85	86	89	88	93		7333729
D4-1,2-Dichloroethane	%	96	97	97	97	93		7333729
o-Terphenyl	%	80	84	80	84	83		7334362

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

BV Labs ID		PMC326	PMC327	PMC328	PMC329	PMC330	PMC331	PMC331		
Sampling Date		2021/05/04 11:02	2021/05/04 11:05	2021/05/04 11:10	2021/05/04 11:12	2021/05/04 11:15	2021/05/04 11:21	2021/05/04 11:21		
COC Number		148859	148859	148859	148859	148859	148859	148859		
	UNITS	**F1**	**F2**	**W3**	**W4**	**W5-2**	**W7-2**	**W7-2 Lab-Dup**	**RDL**	**QC Batch**
Metals										
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.24	0.084	0.15	<0.050	<0.050	0.050	7334954

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

BV Labs ID		PMC332	PMC333		
Sampling Date		2021/05/04 11:25	2021/05/04		
COC Number		148859	148859		
	UNITS	**W1-2**	**QC-1**	**RDL**	**QC Batch**
Metals					
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.071	0.050	7334954

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PMC326
Sample ID: F1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC326 Dup
Sample ID: F1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova

BV Labs ID: PMC327
Sample ID: F2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC328
Sample ID: W3
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC329
Sample ID: W4
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

TEST SUMMARY

BV Labs ID: PMC330
Sample ID: W5-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC331
Sample ID: W7-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC331 Dup
Sample ID: W7-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri

BV Labs ID: PMC332
Sample ID: W1-2
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

BV Labs ID: PMC333
Sample ID: QC-1
Matrix: Soil

Collected: 2021/05/04
Shipped:
Received: 2021/05/04

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7333729	N/A	2021/05/05	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7334362	2021/05/04	2021/05/05	Ksenia Trofimova
Acid Extractable Metals by ICPMS	ICP/MS	7334954	2021/05/05	2021/05/05	Viviana Canzonieri
Moisture	BAL	7333744	N/A	2021/05/04	Gurpreet Kaur (ONT)

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BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

GENERAL COMMENTS

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

Package 1	6.7°C

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7333729	LRA	Matrix Spike	1,4-Difluorobenzene	2021/05/04		97	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		103	%	60 - 140
			D10-o-Xylene	2021/05/04		89	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		92	%	60 - 140
			Benzene	2021/05/04		91	%	50 - 140
			Toluene	2021/05/04		92	%	50 - 140
			Ethylbenzene	2021/05/04		103	%	50 - 140
			o-Xylene	2021/05/04		100	%	50 - 140
			p+m-Xylene	2021/05/04		98	%	50 - 140
			F1 (C6-C10)	2021/05/04		84	%	60 - 140
7333729	LRA	Spiked Blank	1,4-Difluorobenzene	2021/05/04		100	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		101	%	60 - 140
			D10-o-Xylene	2021/05/04		95	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		91	%	60 - 140
			Benzene	2021/05/04		88	%	50 - 140
			Toluene	2021/05/04		89	%	50 - 140
			Ethylbenzene	2021/05/04		99	%	50 - 140
			o-Xylene	2021/05/04		95	%	50 - 140
			p+m-Xylene	2021/05/04		95	%	50 - 140
			F1 (C6-C10)	2021/05/04		83	%	80 - 120
7333729	LRA	Method Blank	1,4-Difluorobenzene	2021/05/04		103	%	60 - 140
			4-Bromofluorobenzene	2021/05/04		92	%	60 - 140
			D10-o-Xylene	2021/05/04		81	%	60 - 140
			D4-1,2-Dichloroethane	2021/05/04		96	%	60 - 140
			Benzene	2021/05/04	<0.020		ug/g	
			Toluene	2021/05/04	<0.020		ug/g	
			Ethylbenzene	2021/05/04	<0.020		ug/g	
			o-Xylene	2021/05/04	<0.020		ug/g	
			p+m-Xylene	2021/05/04	<0.040		ug/g	
			Total Xylenes	2021/05/04	<0.040		ug/g	
			F1 (C6-C10)	2021/05/04	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/05/04	<10		ug/g	
7333729	LRA	RPD	Benzene	2021/05/04	NC		%	50
			Toluene	2021/05/04	NC		%	50
			Ethylbenzene	2021/05/04	NC		%	50
			o-Xylene	2021/05/04	NC		%	50
			p+m-Xylene	2021/05/04	NC		%	50
			Total Xylenes	2021/05/04	NC		%	50
			F1 (C6-C10)	2021/05/04	NC		%	30
			F1 (C6-C10) - BTEX	2021/05/04	NC		%	30
7333744	MYG	RPD	Moisture	2021/05/04	2.0		%	20
7334362	KTR	Matrix Spike [PMC326-01]	o-Terphenyl	2021/05/05		84	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/05/05		94	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/05/05		86	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/05/05		84	%	50 - 130
7334362	KTR	Spiked Blank	o-Terphenyl	2021/05/05		88	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/05/05		95	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/05/05		89	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/05/05		87	%	80 - 120
7334362	KTR	Method Blank	o-Terphenyl	2021/05/05		90	%	60 - 130

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F2 (C10-C16 Hydrocarbons)	2021/05/05	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/05/05	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/05/05	<50		ug/g	
7334362	KTR	RPD [PMC326-01]	F2 (C10-C16 Hydrocarbons)	2021/05/05	3.9		%	30
			F3 (C16-C34 Hydrocarbons)	2021/05/05	11		%	30
			F4 (C34-C50 Hydrocarbons)	2021/05/05	NC		%	30
7334954	VIV	Matrix Spike [PMC331-01]	Acid Extractable Mercury (Hg)	2021/05/05		85	%	75 - 125
7334954	VIV	Spiked Blank	Acid Extractable Mercury (Hg)	2021/05/05		88	%	80 - 120
7334954	VIV	Method Blank	Acid Extractable Mercury (Hg)	2021/05/05	<0.050		ug/g	
7334954	VIV	RPD [PMC331-01]	Acid Extractable Mercury (Hg)	2021/05/05	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).

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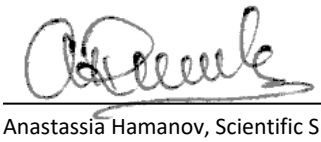
BV Labs Job #: C1B8804
Report Date: 2021/05/05

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST. OAKVILLE
Sampler Initials: SD

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BUREAU VERITAS

RUSH!

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 148859

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Stantec Consulting	Company Name:	Quotation #: Stantec	☐ Regular TAT (5-7 days) Most analyses
Contact Name: Sean Brown	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address: SAME	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: 353 Reynolds St.	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email: sean.brown@Stantec.com	Email:	Site #: Oakville	Date Required: May 5/21
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY		Site Location Province: Ontario	Rush Confirmation #: RCN0504-01
		Sampled By: SCOTT DUNCAN	LABORATORY USE ONLY

Regulation 153

☐ Table 1 ☒ Res/Park ☐ Med/ Fine
☒ Table 2 ☐ Ind/Comm ☒ Coarse
☐ Table 3 ☐ Agri/ Other
☐ Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations

☐ CCME ☐ Sanitary Sewer Bylaw
☐ MISA ☐ Storm Sewer Bylaw
☐ PWQO Region
☐ Other (Specify)
☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
☐ REG 406 Table ____

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Recovery								HOLD: DO NOT ANALYZE
1	F1	2021/05/04	11:02	SOIL	3	-	X	X					X								
2	F2		11:05		3	-	X	X					X								
3	W3		11:10		3	-	X	X					X								
4	W4		11:12		3	-	X	X					X								
5	W5-2		11:15		3	-	X	X					X								
6	W7-2		11:21		3	-	X	X					X								
7	W1-2		11:25		3	-	X	X					X								
8	QC-1	↓	—	↓	3	-	X	X					X								
9																					
10																					

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
SCOTT DUNCAN	2021/05/04	1:32pm		2021/05/04	14:25

COOLER TEMPERATURES	CUSTODY SEAL Y / N	
	Present	Intact
2/2/6	N	N

COOLING MEDIA PRESENT: Y / N

COMMENTS

04-May-21 14:25
Ronklin Gracian
C1B8804

DSG ENV-086

Unless otherwise agreed to in writing, work submitted on this Chain of Custody is subject to Bureau Veritas Laboratories' standard Terms and Conditions. Signing of this Chain of Custody document is acknowledgment and acceptance of the terms and conditions

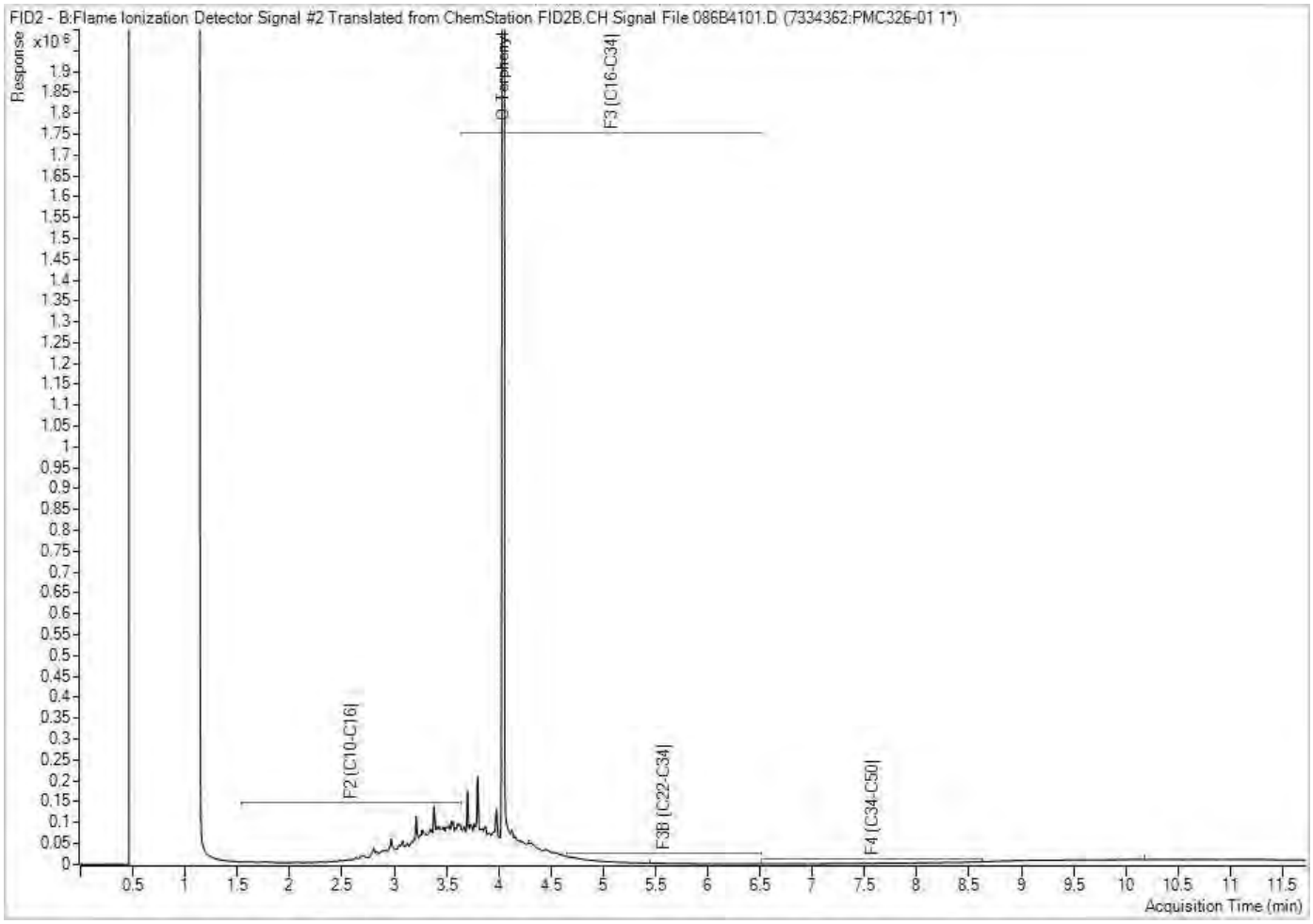
COC-1004 (06/19)

White: BV Labs - Yellow: Client

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC326

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

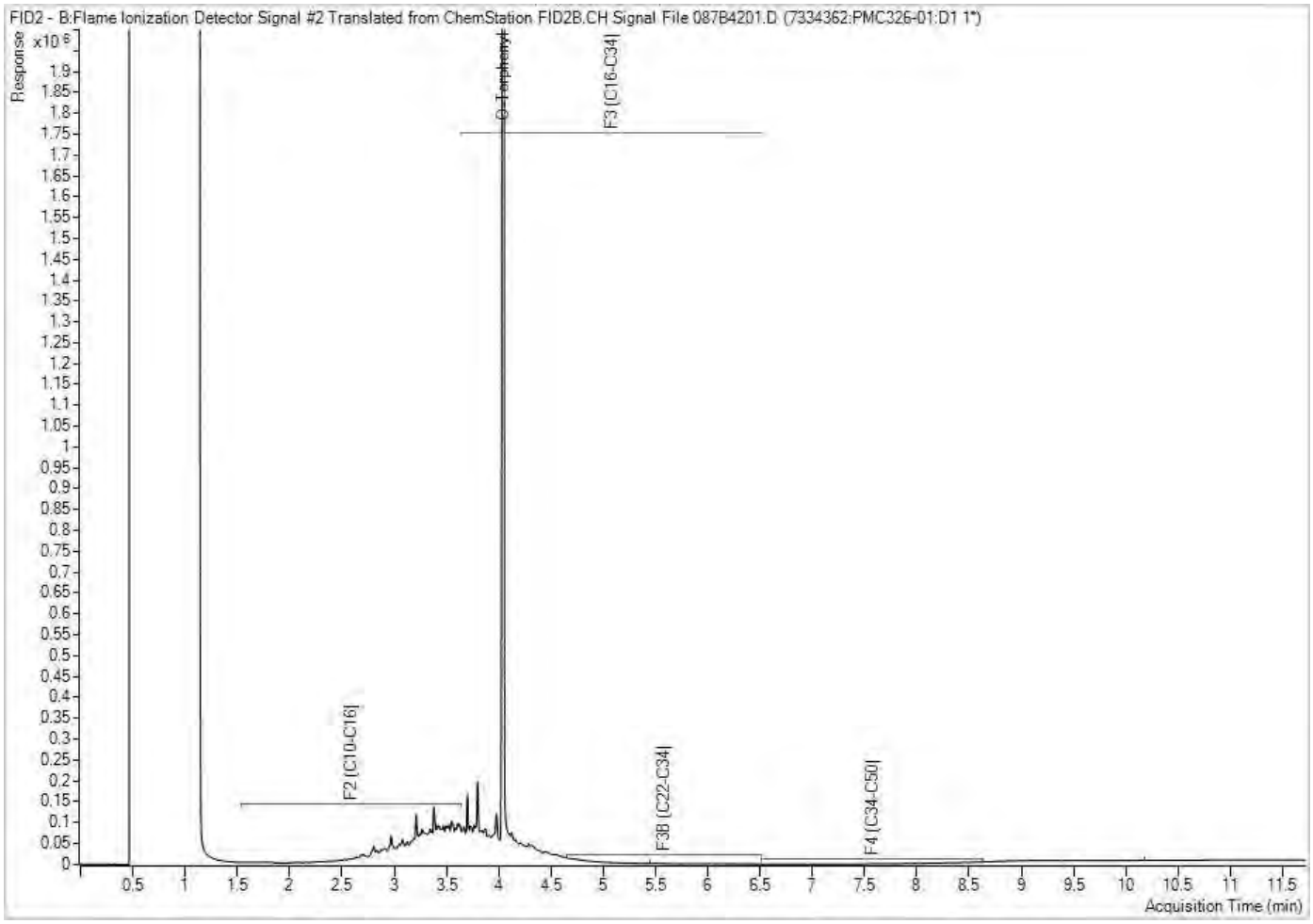


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC326 Lab-Dup

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

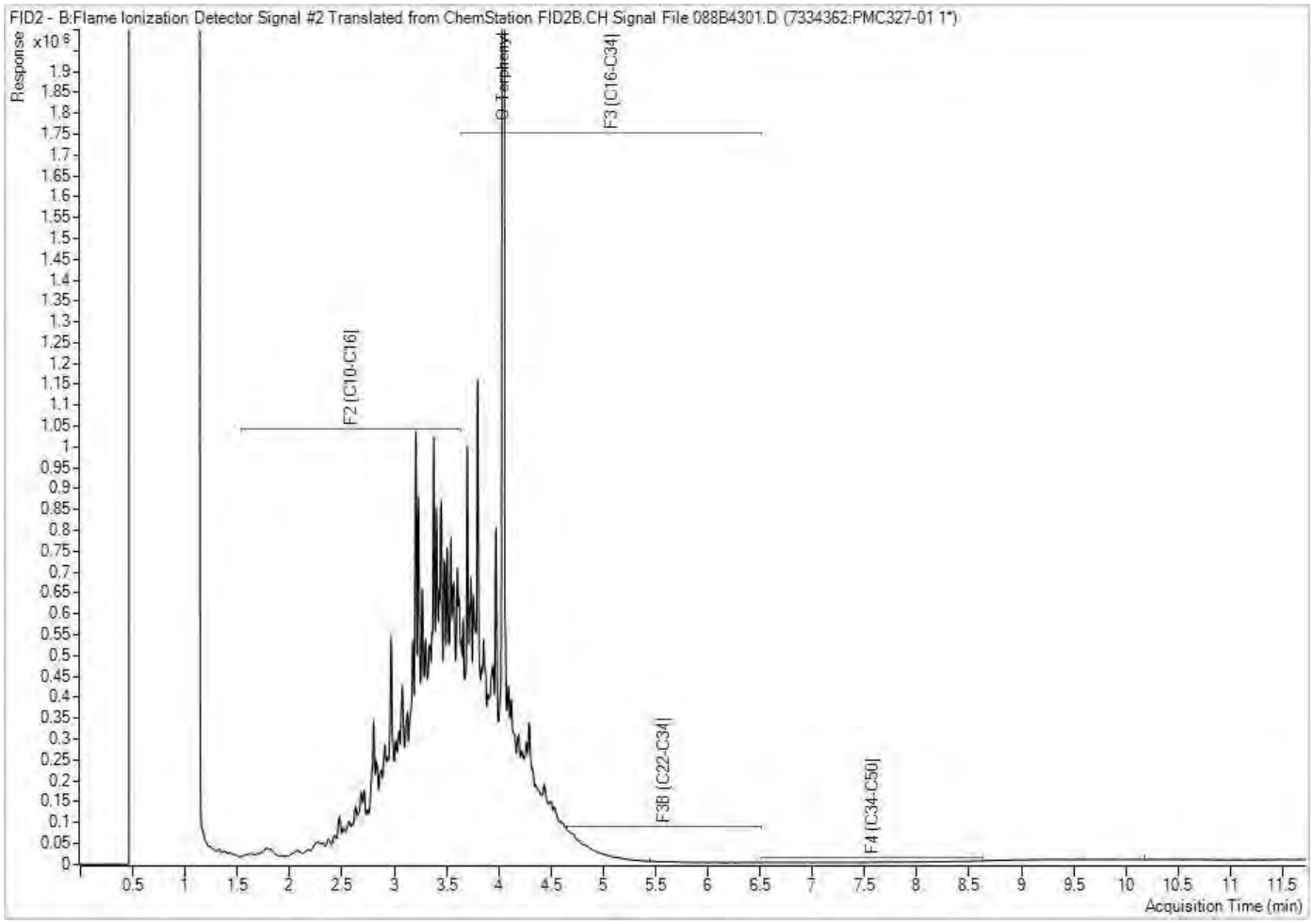


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC327

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: F2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

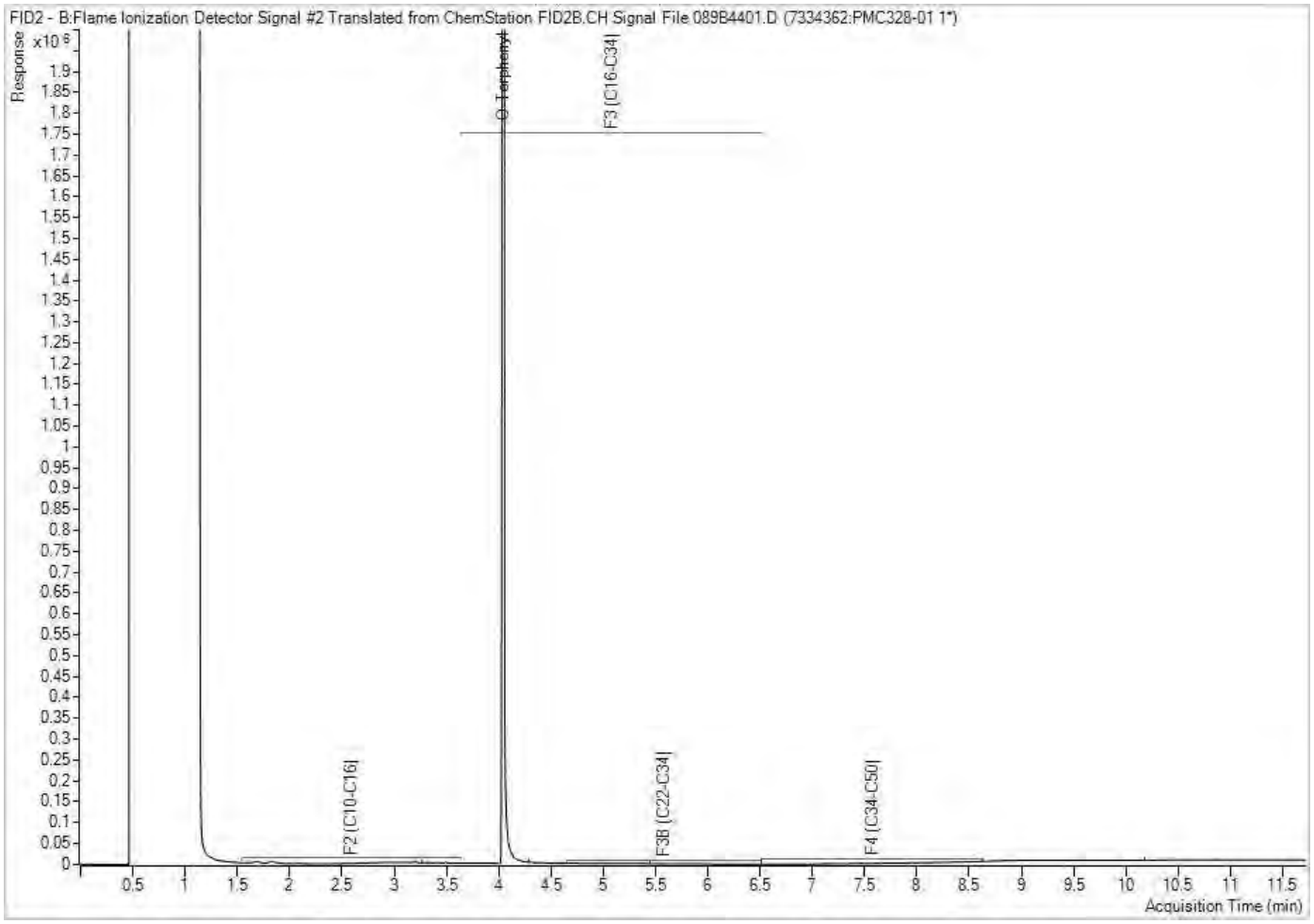


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC328

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

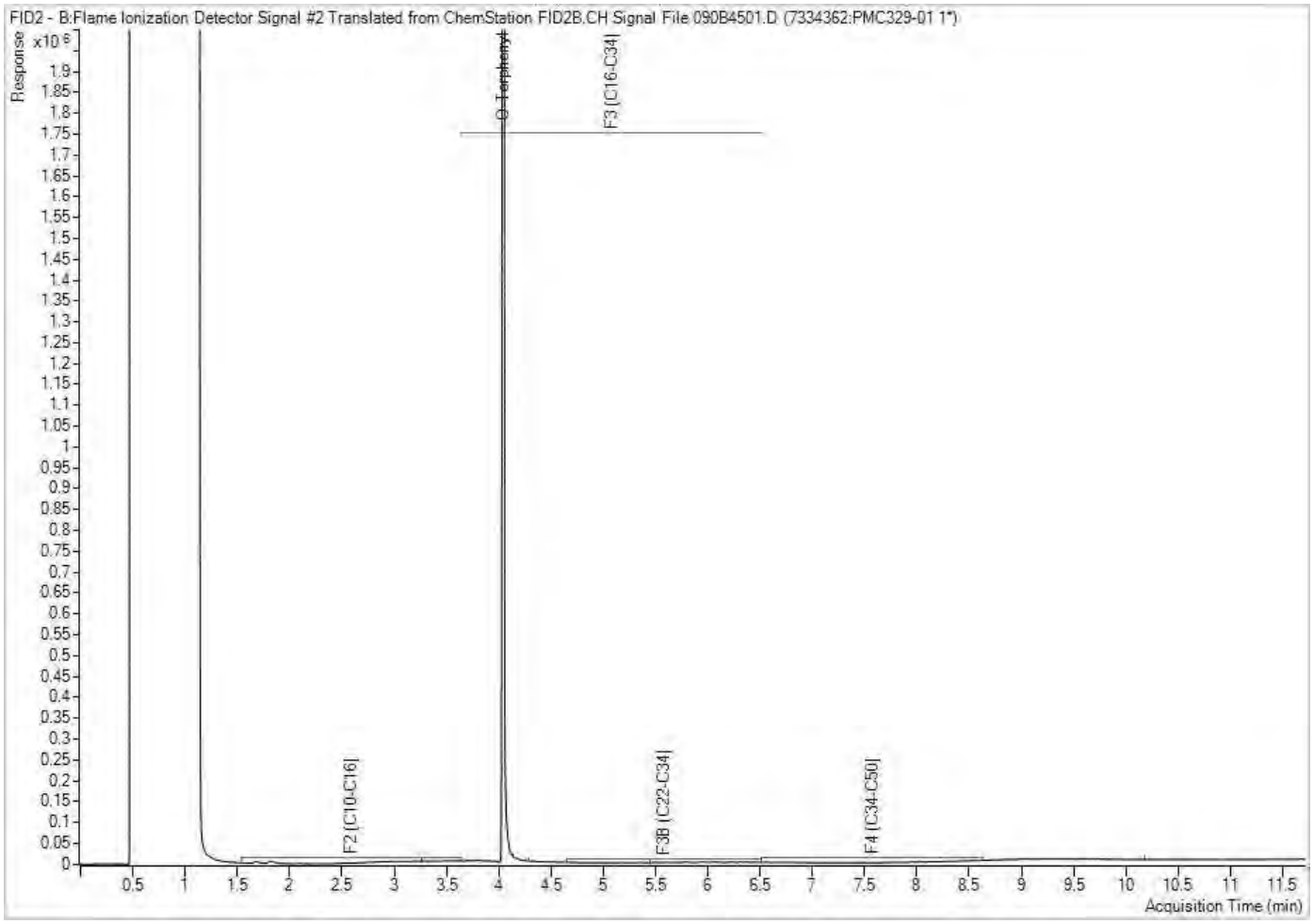


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC329

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W4

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

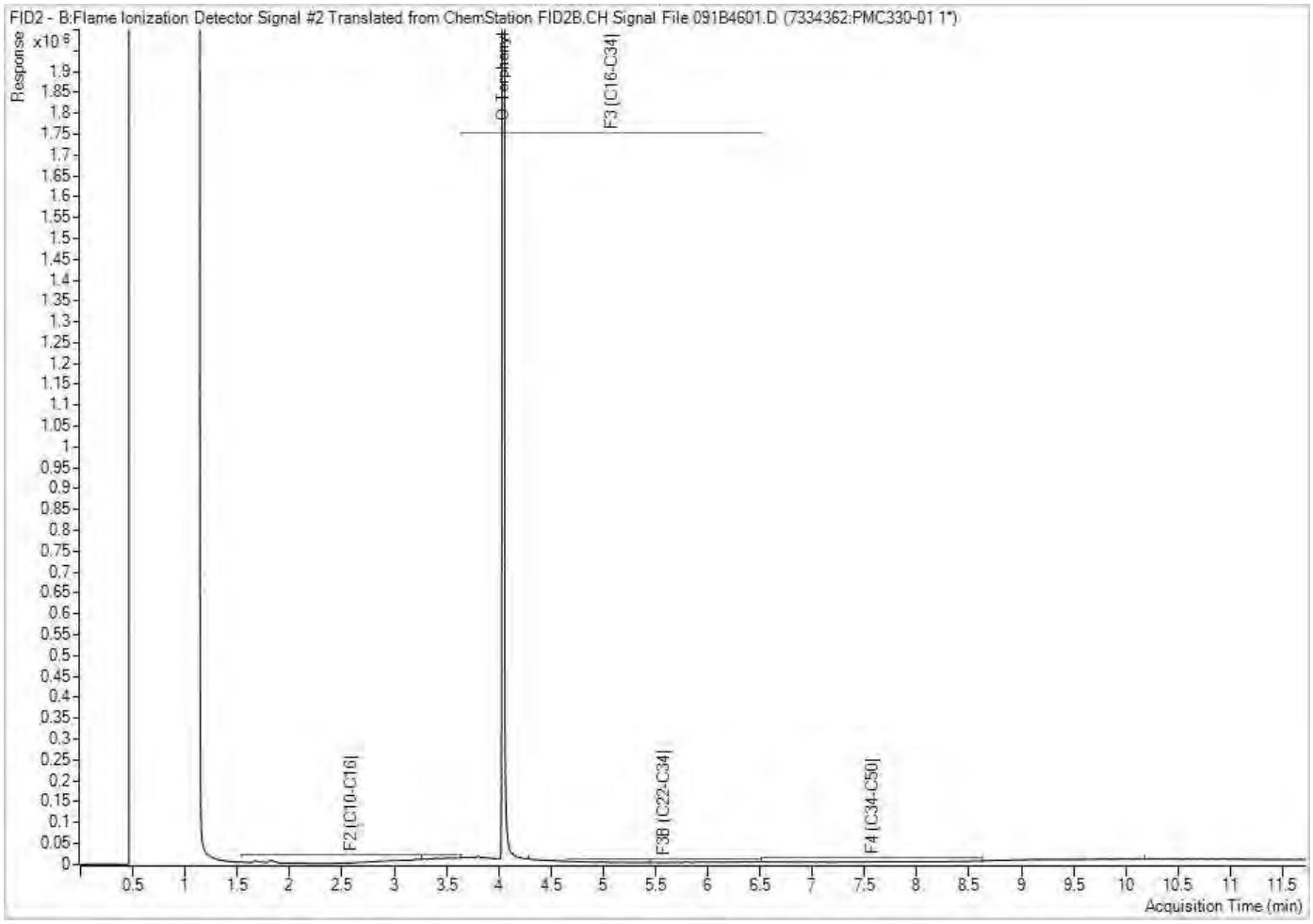


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC330

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W5-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

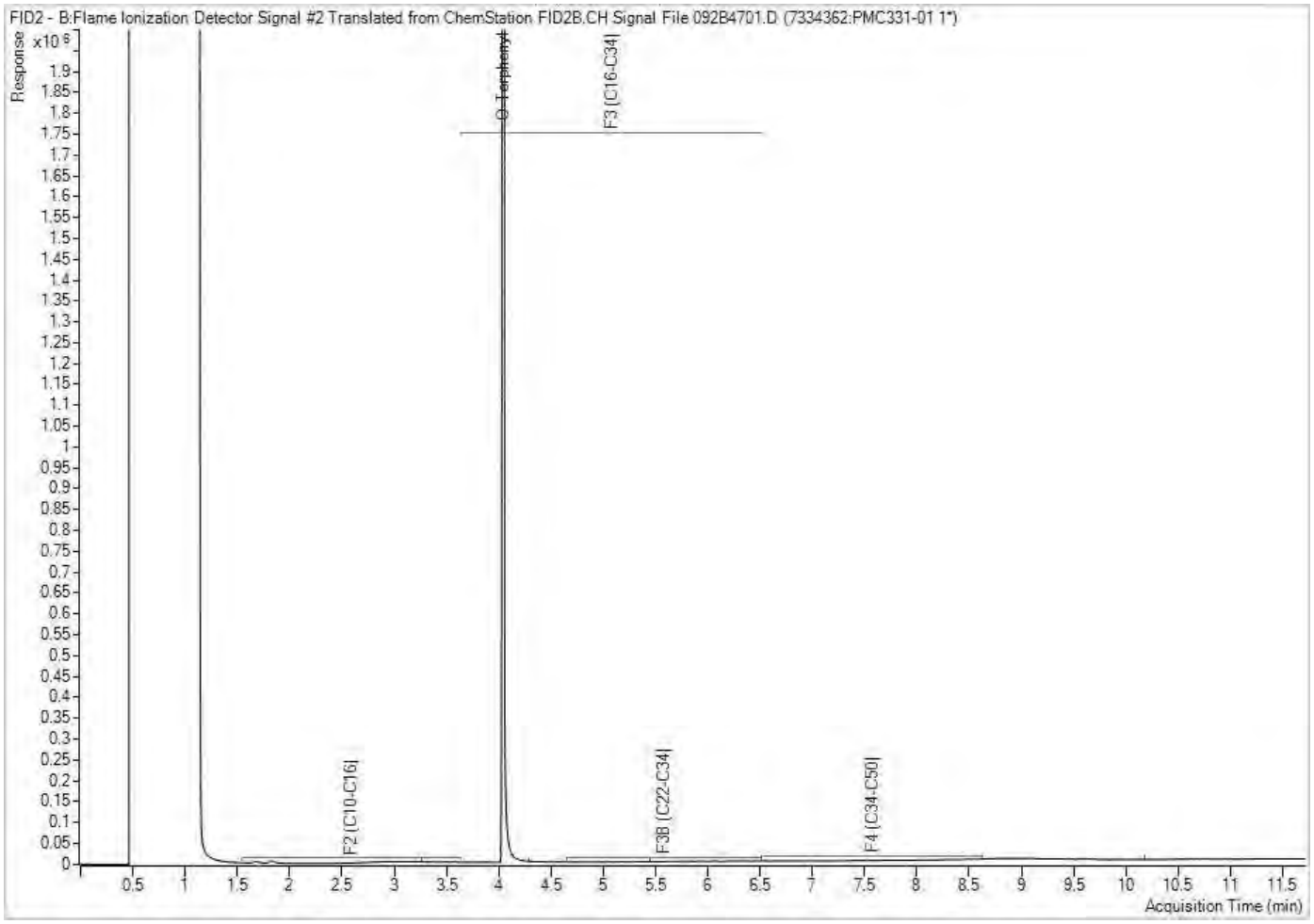


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC331

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W7-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

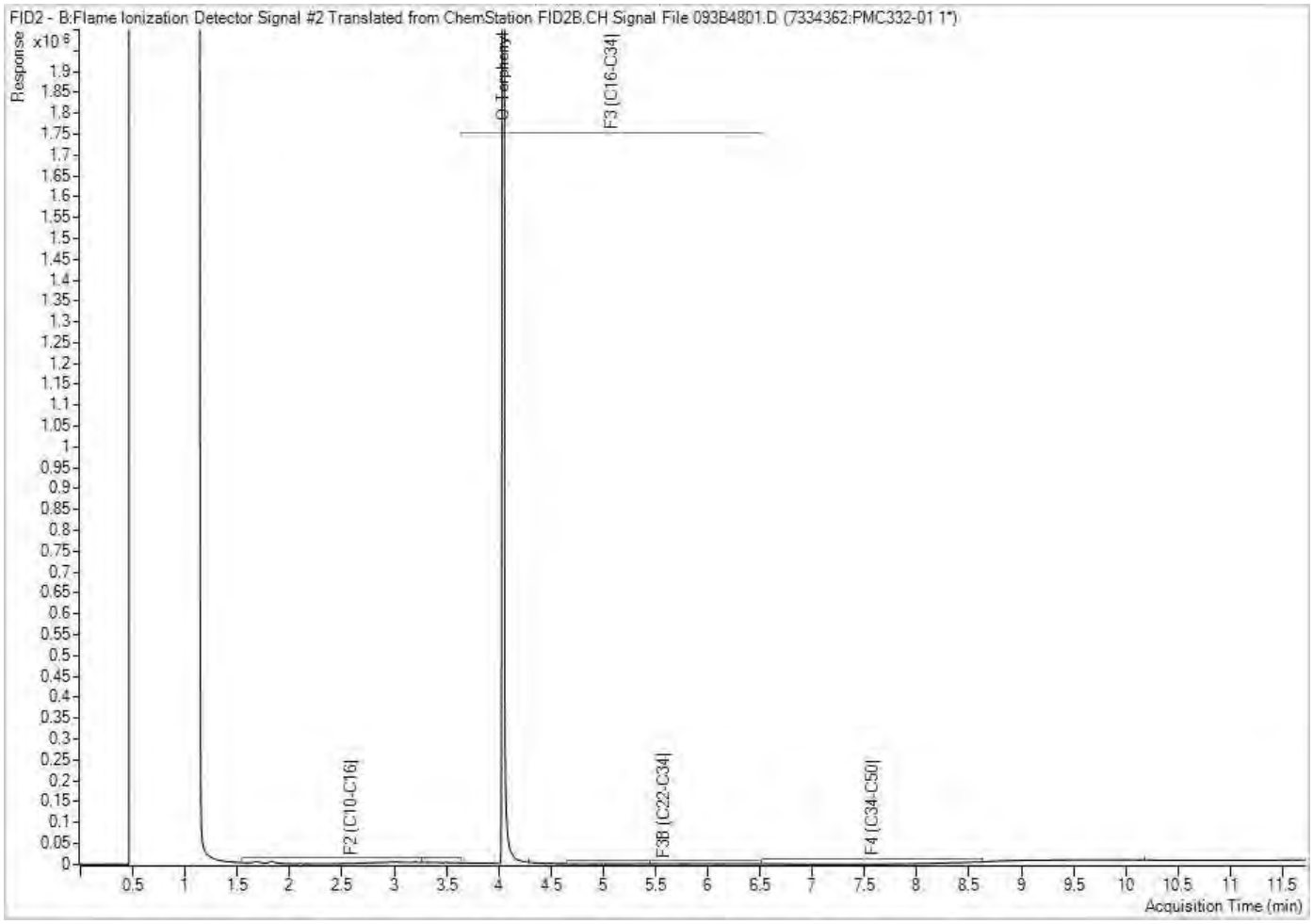


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC332

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: W1-2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

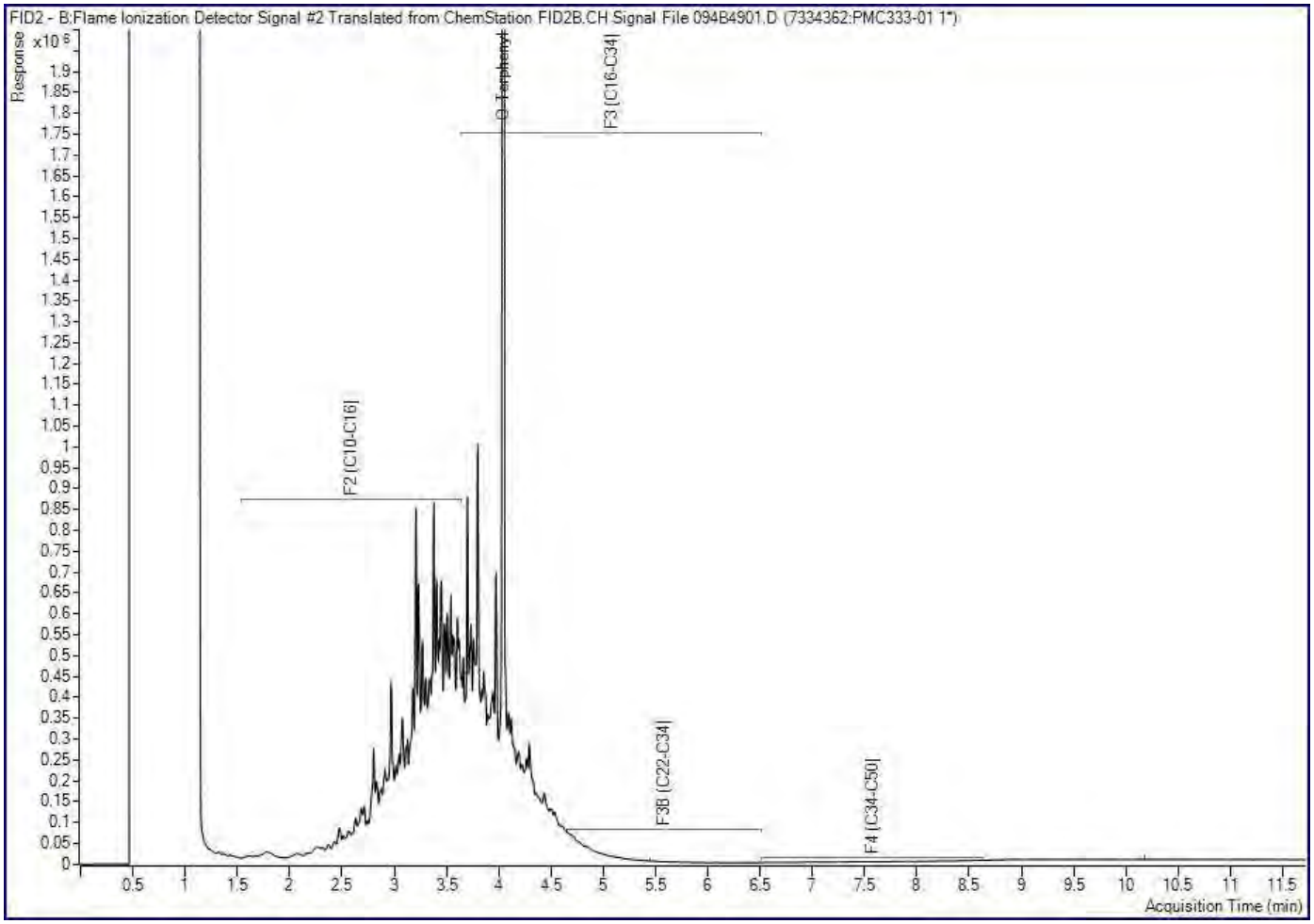


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1B8804
Report Date: 2021/05/05
BV Labs Sample: PMC333

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST. OAKVILLE
Client ID: QC-1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 122120345
Site Location: 358 REYNOLDS ST
Your C.O.C. #: 829372-01-01

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/06/10
Report #: R6670212
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1F8030
Received: 2021/06/09, 13:01

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	2	N/A	2021/06/10	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2021/06/09	2021/06/10	CAM SOP-00316	CCME CWS m
Moisture	2	N/A	2021/06/09	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories 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.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Your Project #: 122120345
Site Location: 358 REYNOLDS ST
Your C.O.C. #: 829372-01-01

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/06/10
Report #: R6670212
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1F8030
Received: 2021/06/09, 13:01

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752
==========
This report has been generated and distributed using a secure automated process.
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

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

BV Labs ID		PUG676	PUG677		
Sampling Date		2021/06/09 09:00	2021/06/09 08:55		
COC Number		829372-01-01	829372-01-01		
	UNITS	**CELL 3-NW-3.5**	**CELL 3-EW-3.5**	**RDL**	**QC Batch**
Inorganics					
Moisture	%	19	21	1.0	7399363
BTEX & F1 Hydrocarbons					
Benzene	ug/g	<0.020	<0.020	0.020	7399549
Toluene	ug/g	<0.020	<0.020	0.020	7399549
Ethylbenzene	ug/g	<0.020	<0.020	0.020	7399549
o-Xylene	ug/g	<0.020	<0.020	0.020	7399549
p+m-Xylene	ug/g	<0.040	<0.040	0.040	7399549
Total Xylenes	ug/g	<0.040	<0.040	0.040	7399549
F1 (C6-C10)	ug/g	<10	<10	10	7399549
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	7399549
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	7399602
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	7399602
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	7399602
Reached Baseline at C50	ug/g	Yes	Yes		7399602
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	102	103		7399549
4-Bromofluorobenzene	%	99	91		7399549
D10-o-Xylene	%	90	93		7399549
D4-1,2-Dichloroethane	%	100	100		7399549
o-Terphenyl	%	88	85		7399602

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

TEST SUMMARY

BV Labs ID: PUG676
Sample ID: CELL 3-NW-3.5
Matrix: Soil

Collected: 2021/06/09
Shipped:
Received: 2021/06/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7399549	N/A	2021/06/10	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7399602	2021/06/09	2021/06/10	(Kent) Maolin Li
Moisture	BAL	7399363	N/A	2021/06/09	Gurpreet Kaur (ONT)

BV Labs ID: PUG677
Sample ID: CELL 3-EW-3.5
Matrix: Soil

Collected: 2021/06/09
Shipped:
Received: 2021/06/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7399549	N/A	2021/06/10	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7399602	2021/06/09	2021/06/10	(Kent) Maolin Li
Moisture	BAL	7399363	N/A	2021/06/09	Gurpreet Kaur (ONT)

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BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

GENERAL COMMENTS

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

Package 1	5.0°C

Sample PUG676 [CELL 3-NW-3.5] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Sample PUG677 [CELL 3-EW-3.5] : F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7399363	GYA	RPD	Moisture	2021/06/09	13		%	20
7399549	DAN	Matrix Spike	1,4-Difluorobenzene	2021/06/09		96	%	60 - 140
			4-Bromofluorobenzene	2021/06/09		103	%	60 - 140
			D10-o-Xylene	2021/06/09		88	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/09		93	%	60 - 140
			Benzene	2021/06/09		97	%	50 - 140
			Toluene	2021/06/09		97	%	50 - 140
			Ethylbenzene	2021/06/09		112	%	50 - 140
			o-Xylene	2021/06/09		109	%	50 - 140
			p+m-Xylene	2021/06/09		108	%	50 - 140
			F1 (C6-C10)	2021/06/09		100	%	60 - 140
7399549	DAN	Spiked Blank	1,4-Difluorobenzene	2021/06/09		96	%	60 - 140
			4-Bromofluorobenzene	2021/06/09		104	%	60 - 140
			D10-o-Xylene	2021/06/09		83	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/09		96	%	60 - 140
			Benzene	2021/06/09		95	%	50 - 140
			Toluene	2021/06/09		96	%	50 - 140
			Ethylbenzene	2021/06/09		108	%	50 - 140
			o-Xylene	2021/06/09		105	%	50 - 140
			p+m-Xylene	2021/06/09		104	%	50 - 140
			F1 (C6-C10)	2021/06/09		92	%	80 - 120
7399549	DAN	Method Blank	1,4-Difluorobenzene	2021/06/09		102	%	60 - 140
			4-Bromofluorobenzene	2021/06/09		91	%	60 - 140
			D10-o-Xylene	2021/06/09		84	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/09		100	%	60 - 140
			Benzene	2021/06/09	<0.020		ug/g	
			Toluene	2021/06/09	<0.020		ug/g	
			Ethylbenzene	2021/06/09	<0.020		ug/g	
			o-Xylene	2021/06/09	<0.020		ug/g	
			p+m-Xylene	2021/06/09	<0.040		ug/g	
			Total Xylenes	2021/06/09	<0.040		ug/g	
			F1 (C6-C10)	2021/06/09	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/06/09	<10		ug/g	
7399549	DAN	RPD	Benzene	2021/06/09	NC		%	50
			Toluene	2021/06/09	NC		%	50
			Ethylbenzene	2021/06/09	NC		%	50
			o-Xylene	2021/06/09	NC		%	50
			p+m-Xylene	2021/06/09	NC		%	50
			Total Xylenes	2021/06/09	NC		%	50
			F1 (C6-C10)	2021/06/09	NC		%	30
			F1 (C6-C10) - BTEX	2021/06/09	NC		%	30
7399602	KLI	Matrix Spike	o-Terphenyl	2021/06/10		110	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/10		119	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/06/10		122	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/06/10		125	%	50 - 130
7399602	KLI	Spiked Blank	o-Terphenyl	2021/06/10		103	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/10		114	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/06/10		115	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/06/10		117	%	80 - 120
7399602	KLI	Method Blank	o-Terphenyl	2021/06/10		102	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/10	<10		ug/g	

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			F3 (C16-C34 Hydrocarbons)	2021/06/10	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/06/10	<50		ug/g	
7399602	KLI	RPD	F2 (C10-C16 Hydrocarbons)	2021/06/10	20		%	30
			F3 (C16-C34 Hydrocarbons)	2021/06/10	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2021/06/10	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).

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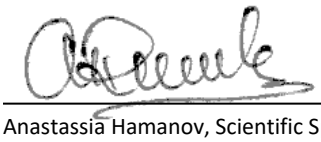
BV Labs Job #: C1F8030
Report Date: 2021/06/10

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST
Sampler Initials: SM

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-free:800-563-6266 Fax:(905) 817-5777 www.bvlabs.com

STAI 09-Jun-21 13:01
Ronklin Gracian
C1F8030

Lab Only: Bottle Order #: 829372

INVOICE INFORMATION:		REPORT INFORMATION(if differs from invoice):		PROJECT INFORMATION:		
Company Name:	#3072 Stantec Consulting Ltd	Company Name:		Quotation #:	C01624	
Contact Name:	Accounts Payable	Contact Name:	Sean Brown	Task #:		
Address:	675 Cochrane Dr W. West Tower Suite 300	Address:		Project #:	122120345	
	Markham ON L3R 0B8			Profit Centre:	1221	
Phone:	(905) 944-7777 Fax: (905) 479-9326	Phone:	(905) 415-6342 Fax:	Site #:	358 Reynolds St	
Email:	SAPinvoices@Stantec.com	Email:	sean.brown@stantec.com	Sampled By:	S.McCutcheon	

COC #: C#829372-01-01
Project Manager: Ronklin Gracian

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☒ Res/Park ☒ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Reg 406 Table ☐ Other

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? N

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: June 10 2021 Time Required: 24hr ☒
Rush Confirmation Number: RGNC609-02 *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	O Reg 153 PHCs, BTEX/F1-F4	Hold	# of Bottles	Comments
1		Cell 2-NW-3.5	2021/06/08	9:35	So	N/A	~~X~~	X	3	
2		Cell 3-NW-3.5	2021/06/09	9:00	So	N/A	X		3	
3		Cell 3-EW-3.5	2021/06/09	8:55	So	N/A	X		3	
4		QC-01	2021/06/09	N/A	So	N/A	~~X~~	X	3	
5										
6										
7										
8										
9										
10										

RUSH

REC'D IN WATERLOO

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
S.McCutcheon Stantec	21/06/09	12:58	JASPREET RAHE	2021/06/09	13:01	0

Laboratory Use Only
Time Sensitive
Temperature (°C) on Receipt: 6° 6° 12°
Custody Seal Present ☑ Intact ☑ — Yes ☑ No ☐

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

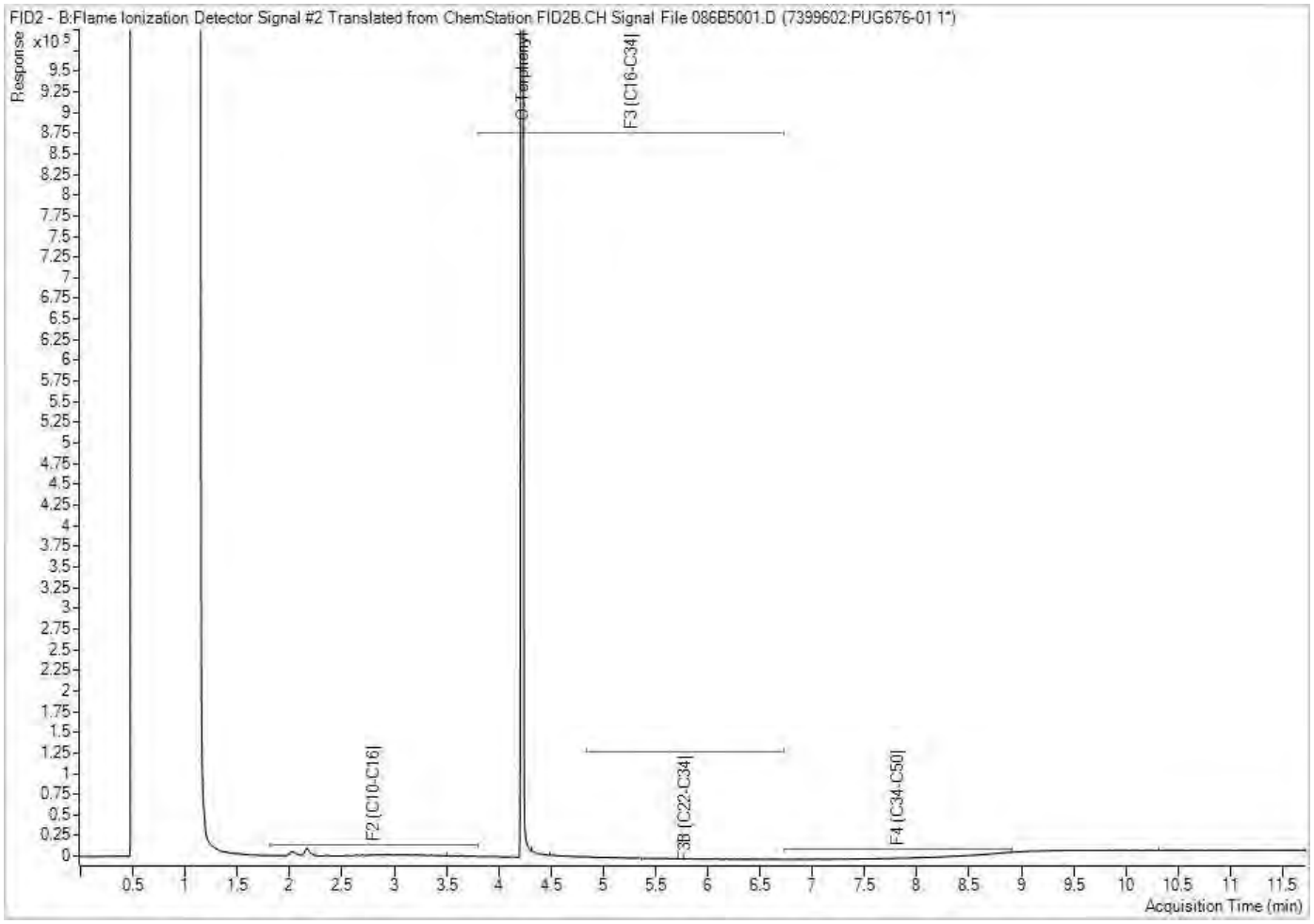
White: BV Labs Yellow: Client

BVH 205016 KAVITHA SELVAN d/t 2021/06/09 17:34 2/8 18

BV Labs Job #: C1F8030
Report Date: 2021/06/10
BV Labs Sample: PUG676

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST
Client ID: CELL 3-NW-3.5

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

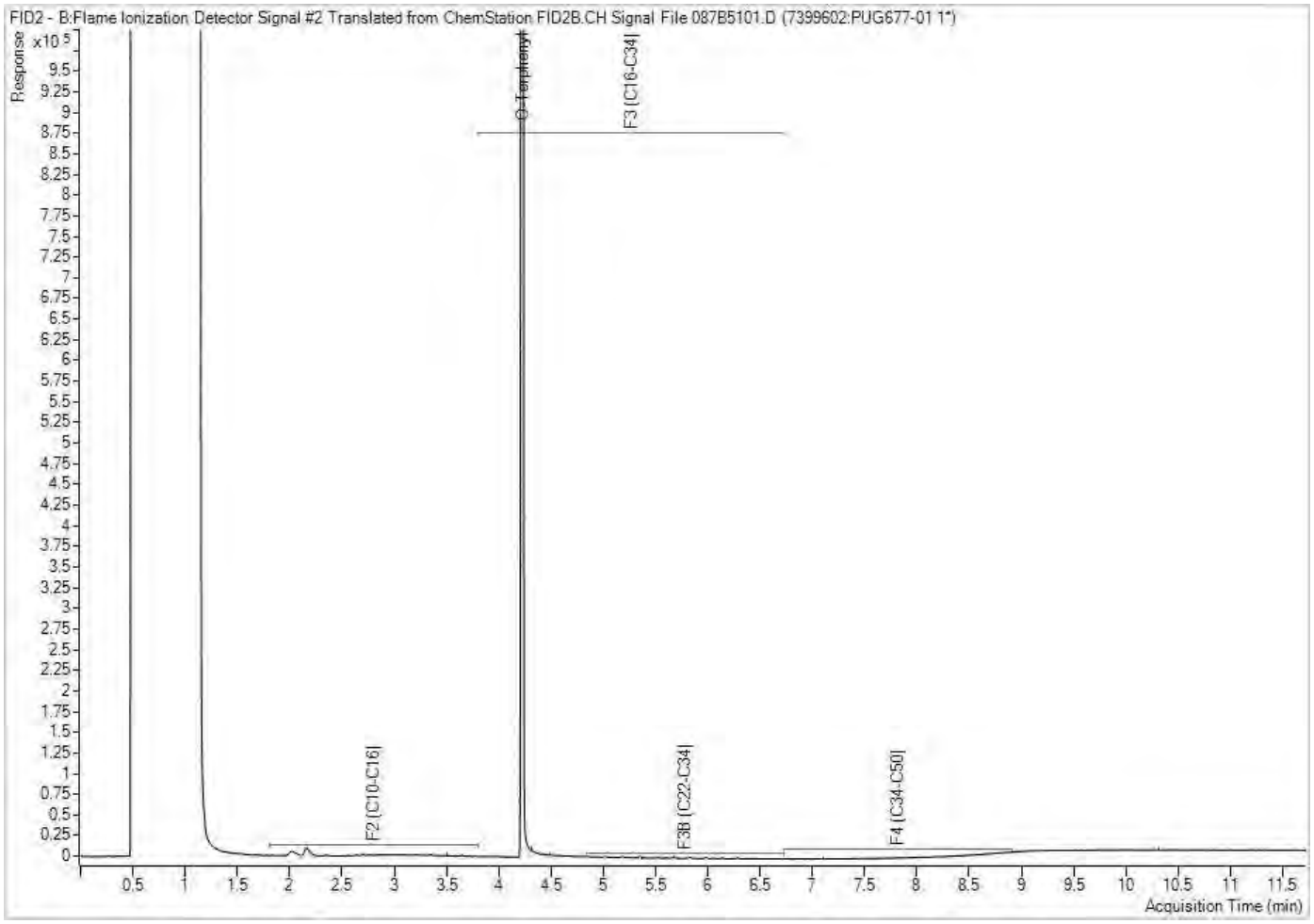


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1F8030
Report Date: 2021/06/10
BV Labs Sample: PUG677

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST
Client ID: CELL 3-EW-3.5

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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Your Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Your C.O.C. #: N/a

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/06/11
Report #: R6672010
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1F9401
Received: 2021/06/10, 12:49

Sample Matrix: Soil
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	1	N/A	2021/06/10	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	3	N/A	2021/06/11	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	4	2021/06/10	2021/06/11	CAM SOP-00316	CCME CWS m
Moisture	4	N/A	2021/06/10	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories 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 #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Your C.O.C. #: N/a

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/06/11
Report #: R6672010
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1F9401
Received: 2021/06/10, 12:49

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752
==========
BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

BV Labs Job #: C1F9401
Report Date: 2021/06/11

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SM

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

BV Labs ID			PUN863	PUN865	PUN866	PUN867		
Sampling Date			2021/06/10 10:30	2021/06/10 10:40	2021/06/10 10:45	2021/06/10		
COC Number			N/a	N/a	N/a	N/a		
	UNITS	**Criteria**	**EX1-W1**	**EX1-S2**	**EX1-E1**	**QC-02**	**RDL**	**QC Batch**
Inorganics								
Moisture	%	-	18	21	15	18	1.0	7402093
BTEX & F1 Hydrocarbons								
Benzene	ug/g	0.21	<0.020	<0.020	<0.020	<0.020	0.020	7402013
Toluene	ug/g	2.3	<0.020	<0.020	<0.020	<0.020	0.020	7402013
Ethylbenzene	ug/g	1.1	<0.020	<0.020	<0.020	<0.020	0.020	7402013
o-Xylene	ug/g	-	<0.020	<0.020	<0.020	<0.020	0.020	7402013
p+m-Xylene	ug/g	-	<0.040	<0.040	<0.040	<0.040	0.040	7402013
Total Xylenes	ug/g	3.1	<0.040	<0.040	<0.040	<0.040	0.040	7402013
F1 (C6-C10)	ug/g	55	<10	<10	<10	<10	10	7402013
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	<10	<10	10	7402013
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	<10	<10	10	7401843
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	<50	<50	50	7401843
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	<50	<50	50	7401843
Reached Baseline at C50	ug/g	-	Yes	Yes	Yes	Yes		7401843
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	-	99	100	100	101		7402013
4-Bromofluorobenzene	%	-	99	96	98	96		7402013
D10-o-Xylene	%	-	84	85	98	89		7402013
D4-1,2-Dichloroethane	%	-	98	97	99	99		7402013
o-Terphenyl	%	-	97	92	92	87		7401843

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 2: Full Depth Generic Site Condition Standards in a Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C1F9401
Report Date: 2021/06/11

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SM

TEST SUMMARY

BV Labs ID: PUN863
Sample ID: EX1-W1
Matrix: Soil

Collected: 2021/06/10
Shipped:
Received: 2021/06/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7402013	N/A	2021/06/10	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401843	2021/06/10	2021/06/11	(Kent) Maolin Li
Moisture	BAL	7402093	N/A	2021/06/10	Gurpreet Kaur (ONT)

BV Labs ID: PUN865
Sample ID: EX1-S2
Matrix: Soil

Collected: 2021/06/10
Shipped:
Received: 2021/06/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7402013	N/A	2021/06/11	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401843	2021/06/10	2021/06/11	(Kent) Maolin Li
Moisture	BAL	7402093	N/A	2021/06/10	Gurpreet Kaur (ONT)

BV Labs ID: PUN866
Sample ID: EX1-E1
Matrix: Soil

Collected: 2021/06/10
Shipped:
Received: 2021/06/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7402013	N/A	2021/06/11	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401843	2021/06/10	2021/06/11	(Kent) Maolin Li
Moisture	BAL	7402093	N/A	2021/06/10	Gurpreet Kaur (ONT)

BV Labs ID: PUN867
Sample ID: QC-02
Matrix: Soil

Collected: 2021/06/10
Shipped:
Received: 2021/06/10

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7402013	N/A	2021/06/11	Domnica Andronescu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7401843	2021/06/10	2021/06/11	(Kent) Maolin Li
Moisture	BAL	7402093	N/A	2021/06/10	Gurpreet Kaur (ONT)

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C1F9401
Report Date: 2021/06/11

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SM

GENERAL COMMENTS

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

Package 1	8.0°C

F1/BTEX Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7401843	KLI	Matrix Spike	o-Terphenyl	2021/06/11		89	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/11		103	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/06/11		103	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/06/11		103	%	50 - 130
7401843	KLI	Spiked Blank	o-Terphenyl	2021/06/11		84	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/11		95	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/06/11		96	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/06/11		95	%	80 - 120
7401843	KLI	Method Blank	o-Terphenyl	2021/06/11		98	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/06/11	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/06/11	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/06/11	<50		ug/g	
7401843	KLI	RPD	F2 (C10-C16 Hydrocarbons)	2021/06/11	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2021/06/11	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2021/06/11	NC		%	30
7402013	DAN	Matrix Spike	1,4-Difluorobenzene	2021/06/10		97	%	60 - 140
			4-Bromofluorobenzene	2021/06/10		101	%	60 - 140
			D10-o-Xylene	2021/06/10		88	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/10		99	%	60 - 140
			Benzene	2021/06/10		96	%	50 - 140
			Toluene	2021/06/10		92	%	50 - 140
			Ethylbenzene	2021/06/10		105	%	50 - 140
			o-Xylene	2021/06/10		102	%	50 - 140
			p+m-Xylene	2021/06/10		102	%	50 - 140
			F1 (C6-C10)	2021/06/10		84	%	60 - 140
7402013	DAN	Spiked Blank	1,4-Difluorobenzene	2021/06/10		97	%	60 - 140
			4-Bromofluorobenzene	2021/06/10		101	%	60 - 140
			D10-o-Xylene	2021/06/10		92	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/10		99	%	60 - 140
			Benzene	2021/06/10		102	%	50 - 140
			Toluene	2021/06/10		94	%	50 - 140
			Ethylbenzene	2021/06/10		106	%	50 - 140
			o-Xylene	2021/06/10		102	%	50 - 140
			p+m-Xylene	2021/06/10		104	%	50 - 140
			F1 (C6-C10)	2021/06/10		90	%	80 - 120
7402013	DAN	Method Blank	1,4-Difluorobenzene	2021/06/10		99	%	60 - 140
			4-Bromofluorobenzene	2021/06/10		98	%	60 - 140
			D10-o-Xylene	2021/06/10		89	%	60 - 140
			D4-1,2-Dichloroethane	2021/06/10		101	%	60 - 140
			Benzene	2021/06/10	<0.020		ug/g	
			Toluene	2021/06/10	<0.020		ug/g	
			Ethylbenzene	2021/06/10	<0.020		ug/g	
			o-Xylene	2021/06/10	<0.020		ug/g	
			p+m-Xylene	2021/06/10	<0.040		ug/g	
			Total Xylenes	2021/06/10	<0.040		ug/g	
			F1 (C6-C10)	2021/06/10	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/06/10	<10		ug/g	
7402013	DAN	RPD	Benzene	2021/06/10	NC		%	50
			Toluene	2021/06/10	NC		%	50
			Ethylbenzene	2021/06/10	NC		%	50
			o-Xylene	2021/06/10	NC		%	50

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BV Labs Job #: C1F9401
Report Date: 2021/06/11

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SM

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			p+m-Xylene	2021/06/10	NC		%	50
			Total Xylenes	2021/06/10	NC		%	50
			F1 (C6-C10)	2021/06/10	NC		%	30
			F1 (C6-C10) - BTEX	2021/06/10	NC		%	30
7402093	GYA	RPD	Moisture	2021/06/10	2.0		%	20

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).

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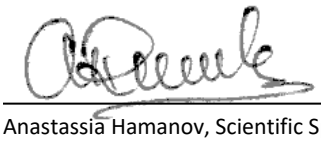
BV Labs Job #: C1F9401
Report Date: 2021/06/11

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SM

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 Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BUREAU VERITAS

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/6

CHAIN OF CUSTODY RECORD 158447 Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: Stantec	Company Name: Stantec	Quotation #: Stantec	☐ Regular TAT (5-7 days) Most analyses
Contact Name: Accounts Payable	Contact Name: Sean Brown	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: Markham	Address: Markham	Project #: 122120345	Rush TAT (Surcharges will be applied)
Phone: Fax:	Phone: Fax:	Site Location: Oakville	☒ 1 Day ☐ 2 Days ☐ 3-4 Days
Email:	Email: Sean.Brown@stantec.com	Site #: 358 Reynolds St	Date Required: June 11. 2021
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS LABORATORIES' DRINKING WATER CHAIN OF CUSTODY		Site Location Province: ON	Rush Confirmation #: RGN 0680 - 01
		Sampled By: S. McCutcheon	

Regulation 153	Other Regulations
☐ Table 1 ☒ Res/Park ☐ Med/ Fine	☐ CCME ☐ Sanitary Sewer Bylaw
☒ Table 2 ☐ Ind/Comm ☐ Coarse	☐ MISA ☐ Storm Sewer Bylaw
☐ Table 3 ☐ Agri/ Other	☐ PWQO Region
☐ Table ____	☐ Other (Specify)
FOR RSC (PLEASE CIRCLE) Y / (N)	☐ REG 558 (MIN. 3 DAY TAT REQUIRED)
	☐ REG 406 Table

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Analysis Requested

LABORATORY USE ONLY

CUSTODY SEAL (Y) N — Present: Y — Intact: Y

COOLER TEMPERATURES: 7.9.8 / 4.3.3

COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE): Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	HOLD - DO NOT ANALYZE	COMMENTS
1	EX1-W1	2021/06/10	10:30	Soil	3	N/A	X	X						
2	EX1-S1	2021/06/10	10:35	Soil	3	N/A							X	
3	EX1-S2	2021/06/10	10:40	Soil	3	N/A	X	X						
4	EX1-E1	2021/06/10	1045	Soil	3	N/A	X	X						
5	QC-02	2021/06/10	/	Soil	3	N/A	X	X						
6														
7														
8														
9														
10														

RUSH

REC'D IN WATERLOO

10-Jun-21 12:49

Ronklin Gracian

C1F9401

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
S McCutcheon S McCutcheon	2021/06/10	12:45	JASPREET KAUR	2021/06/10	12:49

M2K ENV-1138

COC-1004 (06/19)

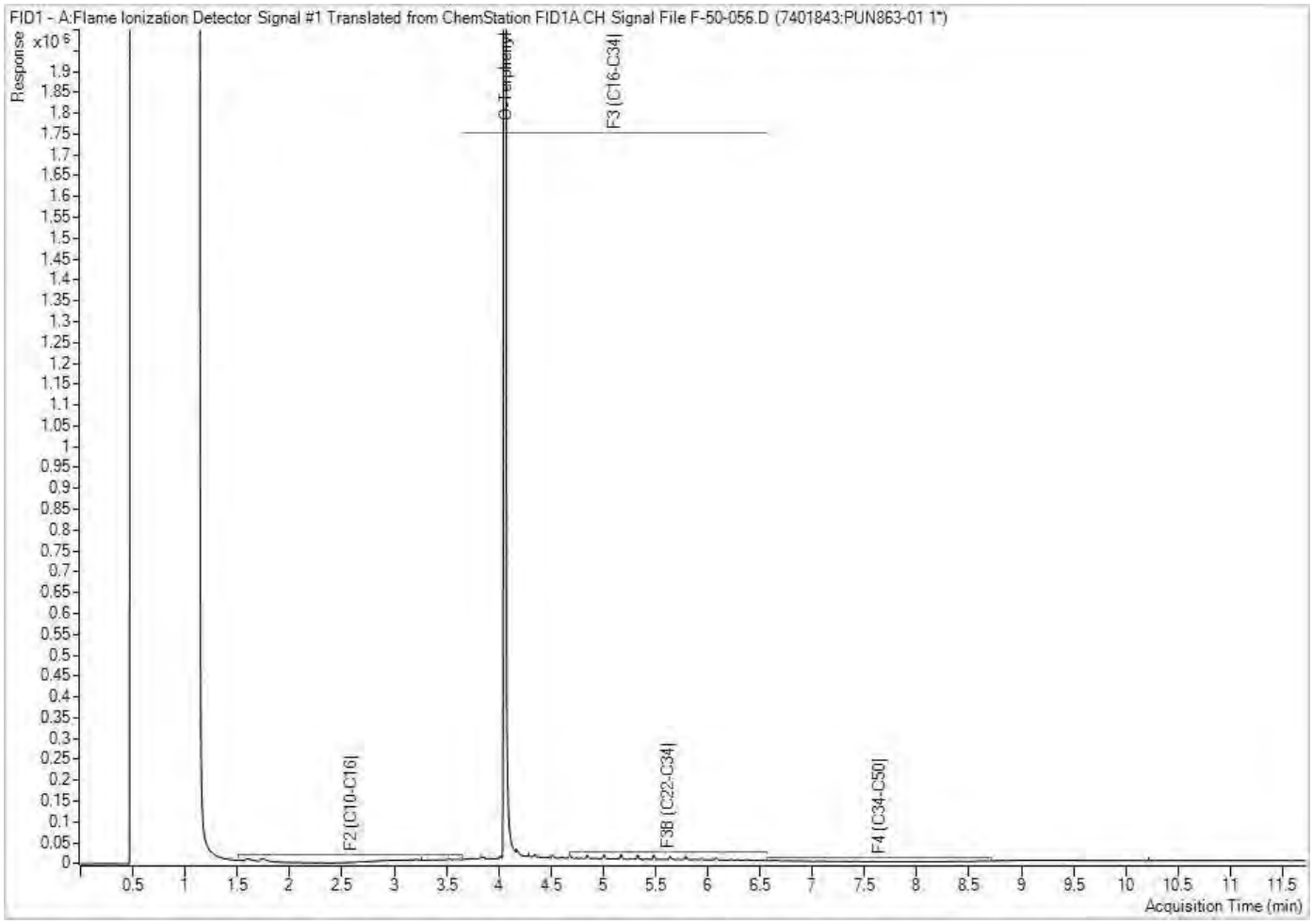
NB# 205017

White: BV Labs - Yellow: Client

BV Labs Job #: C1F9401
Report Date: 2021/06/11
BV Labs Sample: PUN863

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: EX1-W1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

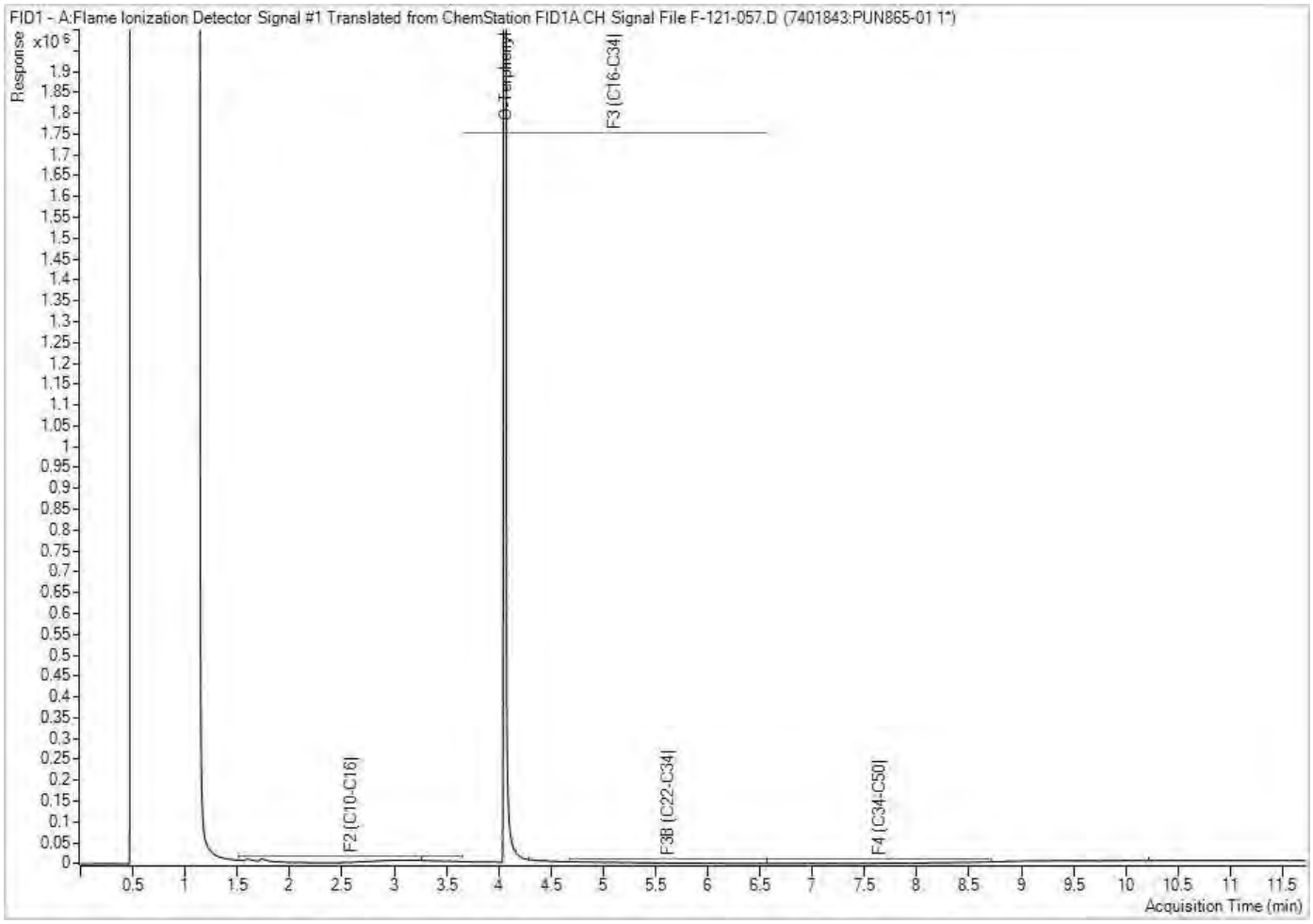


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1F9401
Report Date: 2021/06/11
BV Labs Sample: PUN865

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: EX1-S2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

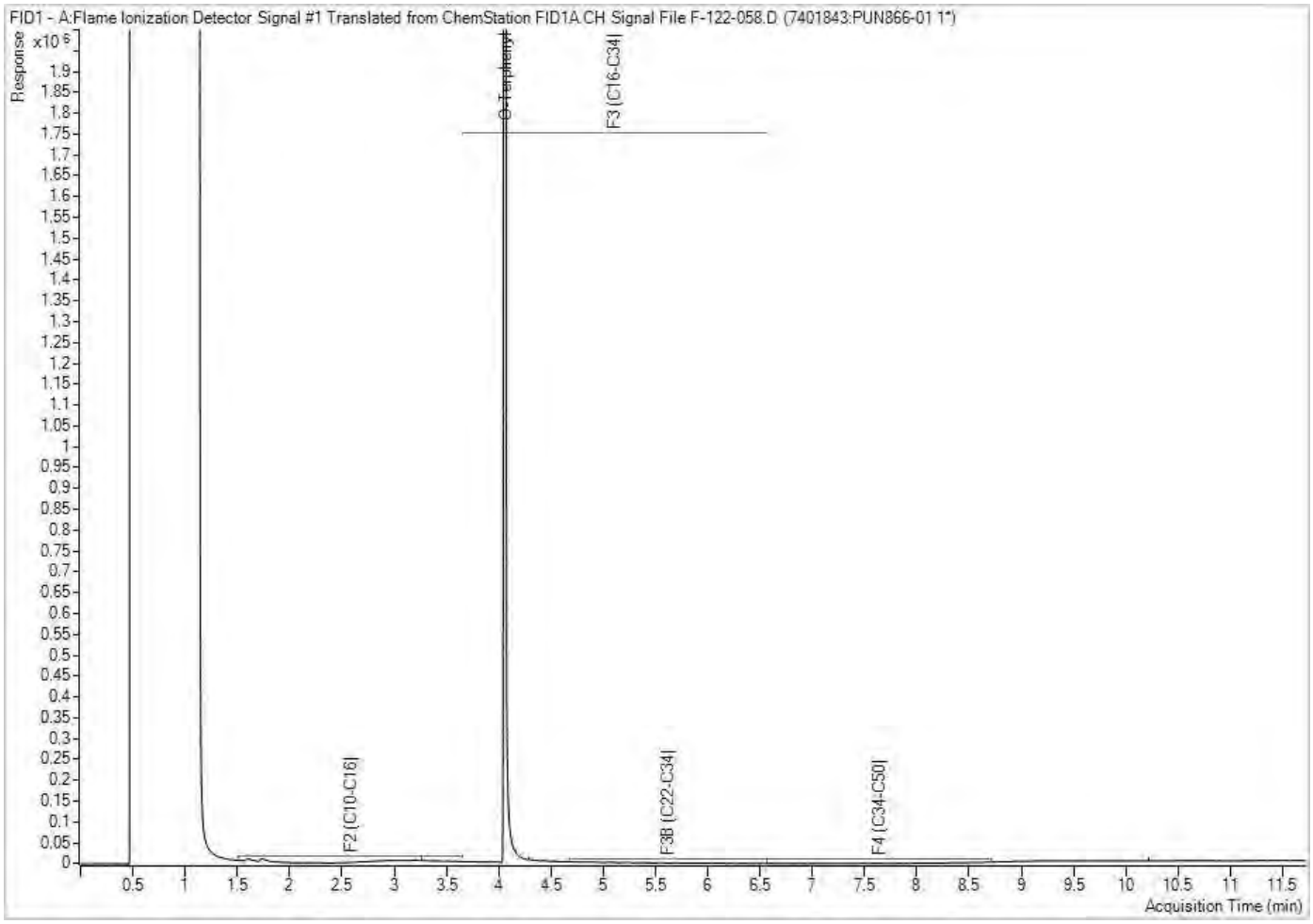


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1F9401
Report Date: 2021/06/11
BV Labs Sample: PUN866

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: EX1-E1

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

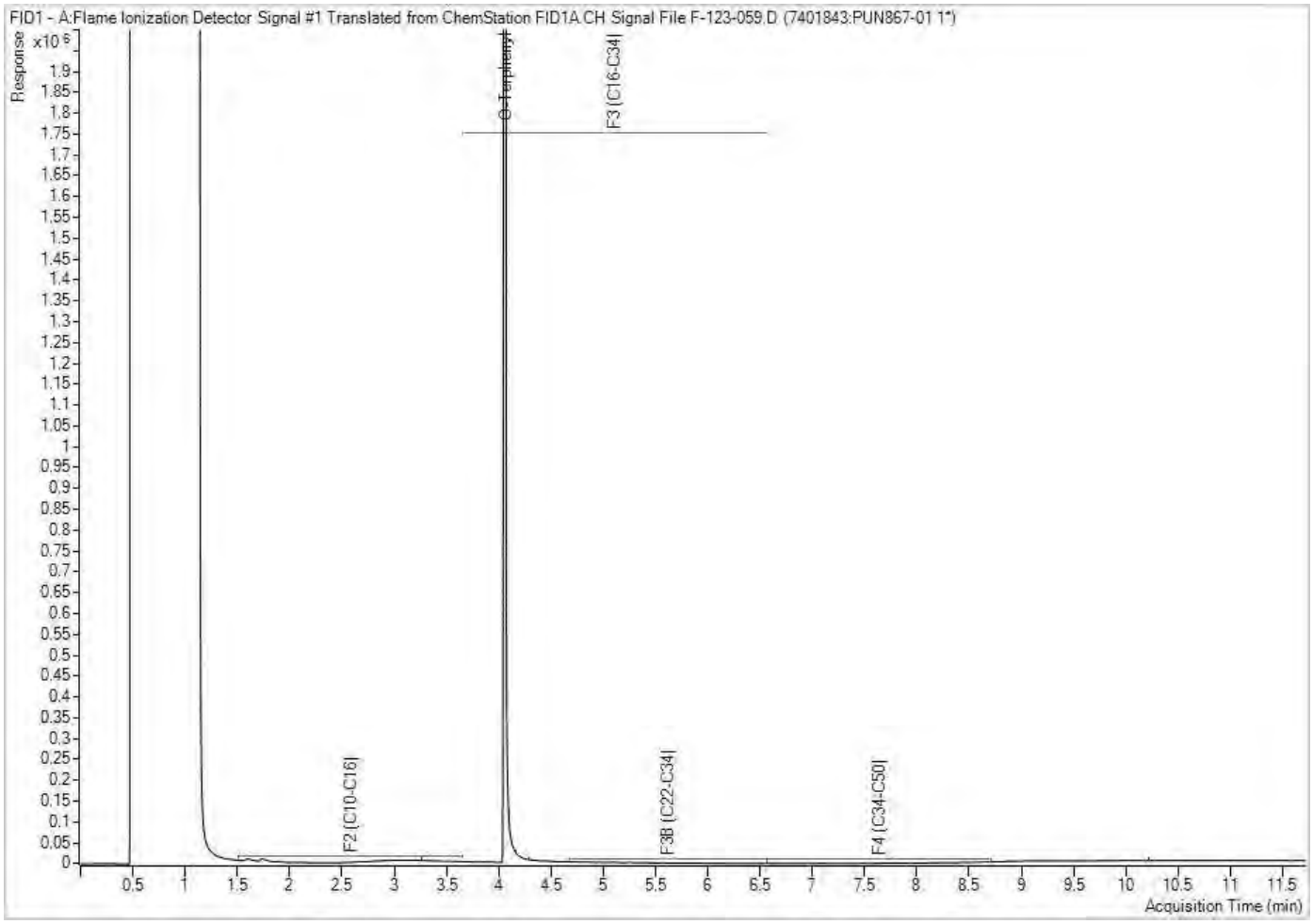


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

BV Labs Job #: C1F9401
Report Date: 2021/06/11
BV Labs Sample: PUN867

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: QC-02

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Your Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Your C.O.C. #: N/A

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/10/21
Report #: R6863005
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1U6428
Received: 2021/10/20, 13:15

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Petroleum Hydro. CCME F1 & BTEX in Soil (1)	3	N/A	2021/10/21	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	3	2021/10/20	2021/10/21	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	3	2021/10/21	2021/10/21	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2021/10/20	CAM SOP-00445	Carter 2nd ed 51.2 m

Remarks:

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

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) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas Laboratories 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 #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Your C.O.C. #: N/A

Attention: Sean Brown

Stantec Consulting Ltd
675 Cochrane Dr W.
West Tower Suite 300
Markham, ON
CANADA L3R 0B8

Report Date: 2021/10/21
Report #: R6863005
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C1U6428
Received: 2021/10/20, 13:15

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ronklin Gracian, Project Manager
Email: Ronklin.Gracian@bureauveritas.com
Phone# (905)817-5752
==========
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Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SMC

O.REG 153 ICPMS METALS & MERCURY (SOIL)

Bureau Veritas ID		QZM460	QZM461	QZM462	QZM462		
Sampling Date		2021/10/20 10:25	2021/10/20 10:35	2021/10/20 10:45	2021/10/20 10:45		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	**GS21-01**	**GS21-02**	**GS21-03**	**GS21-03 Lab-Dup**	**RDL**	**QC Batch**
Metals							
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	7650898
Acid Extractable Arsenic (As)	ug/g	1.4	<1.0	<1.0	<1.0	1.0	7650898
Acid Extractable Barium (Ba)	ug/g	18	10	11	12	0.50	7650898
Acid Extractable Beryllium (Be)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	7650898
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	5.0	7650898
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	<0.10	<0.10	0.10	7650898
Acid Extractable Chromium (Cr)	ug/g	5.6	4.1	5.1	5.2	1.0	7650898
Acid Extractable Cobalt (Co)	ug/g	2.3	1.3	1.9	1.8	0.10	7650898
Acid Extractable Copper (Cu)	ug/g	10	6.8	7.3	6.9	0.50	7650898
Acid Extractable Lead (Pb)	ug/g	3.4	3.9	2.3	2.3	1.0	7650898
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	7650898
Acid Extractable Nickel (Ni)	ug/g	4.5	2.8	3.4	3.5	0.50	7650898
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	7650898
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	7650898
Acid Extractable Thallium (Tl)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	7650898
Acid Extractable Uranium (U)	ug/g	0.31	0.30	0.26	0.24	0.050	7650898
Acid Extractable Vanadium (V)	ug/g	15	9.4	13	12	5.0	7650898
Acid Extractable Zinc (Zn)	ug/g	18	19	9.5	9.7	5.0	7650898
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	7650898

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

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Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SMC

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

Bureau Veritas ID		QZM460			QZM460			QZM461	QZM462		
Sampling Date		2021/10/20 10:25			2021/10/20 10:25			2021/10/20 10:35	2021/10/20 10:45		
COC Number		N/A			N/A			N/A	N/A		
	UNITS	**GS21-01**	**RDL**	**QC Batch**	**GS21-01 Lab-Dup**	**RDL**	**QC Batch**	**GS21-02**	**GS21-03**	**RDL**	**QC Batch**
Inorganics											
Moisture	%	3.5	1.0	7650345				3.6	6.0	1.0	7650345
BTEX & F1 Hydrocarbons											
Benzene	ug/g	<0.020	0.020	7650455				<0.020	<0.020	0.020	7650455
Toluene	ug/g	0.027	0.020	7650455				0.041	<0.020	0.020	7650455
Ethylbenzene	ug/g	<0.020	0.020	7650455				<0.020	<0.020	0.020	7650455
o-Xylene	ug/g	<0.020	0.020	7650455				<0.020	<0.020	0.020	7650455
p+m-Xylene	ug/g	<0.040	0.040	7650455				<0.040	<0.040	0.040	7650455
Total Xylenes	ug/g	<0.040	0.040	7650455				<0.040	<0.040	0.040	7650455
F1 (C6-C10)	ug/g	<10	10	7650455				<10	<10	10	7650455
F1 (C6-C10) - BTEX	ug/g	<10	10	7650455				<10	<10	10	7650455
F2-F4 Hydrocarbons											
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	7650362	<10	10	7650362	<10	<10	10	7650362
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	7650362	<50	50	7650362	<50	<50	50	7650362
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	7650362	<50	50	7650362	<50	<50	50	7650362
Reached Baseline at C50	ug/g	Yes		7650362	Yes		7650362	Yes	Yes		7650362
Surrogate Recovery (%)											
1,4-Difluorobenzene	%	110		7650455				112	113		7650455
4-Bromofluorobenzene	%	100		7650455				98	97		7650455
D10-o-Xylene	%	76		7650455				80	83		7650455
D4-1,2-Dichloroethane	%	102		7650455				104	110		7650455
o-Terphenyl	%	95		7650362	94		7650362	94	91		7650362

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

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Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SMC

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

Bureau Veritas ID		QZM462		
Sampling Date		2021/10/20 10:45		
COC Number		N/A		
	UNITS	**GS21-03 Lab-Dup**	**RDL**	**QC Batch**
Inorganics				
Moisture	%	5.7	1.0	7650345

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

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Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SMC

TEST SUMMARY

Bureau Veritas ID: QZM460 **Collected:** 2021/10/20
Sample ID: GS21-01 **Shipped:**
Matrix: Soil **Received:** 2021/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7650455	N/A	2021/10/21	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7650362	2021/10/20	2021/10/21	Ravinder Gaidhu
Acid Extractable Metals by ICPMS	ICP/MS	7650898	2021/10/21	2021/10/21	Viviana Canzonieri
Moisture	BAL	7650345	N/A	2021/10/20	Prgya Panchal

Bureau Veritas ID: QZM460 Dup **Collected:** 2021/10/20
Sample ID: GS21-01 **Shipped:**
Matrix: Soil **Received:** 2021/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7650362	2021/10/20	2021/10/21	Ravinder Gaidhu

Bureau Veritas ID: QZM461 **Collected:** 2021/10/20
Sample ID: GS21-02 **Shipped:**
Matrix: Soil **Received:** 2021/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7650455	N/A	2021/10/21	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7650362	2021/10/20	2021/10/21	Ravinder Gaidhu
Acid Extractable Metals by ICPMS	ICP/MS	7650898	2021/10/21	2021/10/21	Viviana Canzonieri
Moisture	BAL	7650345	N/A	2021/10/20	Prgya Panchal

Bureau Veritas ID: QZM462 **Collected:** 2021/10/20
Sample ID: GS21-03 **Shipped:**
Matrix: Soil **Received:** 2021/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	7650455	N/A	2021/10/21	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	7650362	2021/10/20	2021/10/21	Ravinder Gaidhu
Acid Extractable Metals by ICPMS	ICP/MS	7650898	2021/10/21	2021/10/21	Viviana Canzonieri
Moisture	BAL	7650345	N/A	2021/10/20	Prgya Panchal

Bureau Veritas ID: QZM462 Dup **Collected:** 2021/10/20
Sample ID: GS21-03 **Shipped:**
Matrix: Soil **Received:** 2021/10/20

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Acid Extractable Metals by ICPMS	ICP/MS	7650898	2021/10/21	2021/10/21	Viviana Canzonieri
Moisture	BAL	7650345	N/A	2021/10/20	Prgya Panchal

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GENERAL COMMENTS

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

Package 1	5.3°C

Sample QZM460 [GS21-01] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Sample QZM461 [GS21-02] : F1 BTEX analysis : Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
7650345	MYG	RPD [QZM462-02]	Moisture	2021/10/20	5.1		%	20
7650362	RGA	Matrix Spike [QZM460-02]	o-Terphenyl	2021/10/21		92	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/10/21		104	%	50 - 130
			F3 (C16-C34 Hydrocarbons)	2021/10/21		103	%	50 - 130
			F4 (C34-C50 Hydrocarbons)	2021/10/21		106	%	50 - 130
7650362	RGA	Spiked Blank	o-Terphenyl	2021/10/21		92	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/10/21		101	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2021/10/21		100	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2021/10/21		103	%	80 - 120
7650362	RGA	Method Blank	o-Terphenyl	2021/10/21		92	%	60 - 130
			F2 (C10-C16 Hydrocarbons)	2021/10/21	<10		ug/g	
			F3 (C16-C34 Hydrocarbons)	2021/10/21	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2021/10/21	<50		ug/g	
7650362	RGA	RPD [QZM460-02]	F2 (C10-C16 Hydrocarbons)	2021/10/21	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2021/10/21	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2021/10/21	NC		%	30
7650455	LRA	Matrix Spike	1,4-Difluorobenzene	2021/10/21		105	%	60 - 140
			4-Bromofluorobenzene	2021/10/21		102	%	60 - 140
			D10-o-Xylene	2021/10/21		69	%	60 - 140
			D4-1,2-Dichloroethane	2021/10/21		96	%	60 - 140
			Benzene	2021/10/21		82	%	50 - 140
			Toluene	2021/10/21		74	%	50 - 140
			Ethylbenzene	2021/10/21		83	%	50 - 140
			o-Xylene	2021/10/21		81	%	50 - 140
			p+m-Xylene	2021/10/21		79	%	50 - 140
			F1 (C6-C10)	2021/10/21		NC	%	60 - 140
7650455	LRA	Spiked Blank	1,4-Difluorobenzene	2021/10/20		99	%	60 - 140
			4-Bromofluorobenzene	2021/10/20		105	%	60 - 140
			D10-o-Xylene	2021/10/20		99	%	60 - 140
			D4-1,2-Dichloroethane	2021/10/20		90	%	60 - 140
			Benzene	2021/10/20		99	%	50 - 140
			Toluene	2021/10/20		90	%	50 - 140
			Ethylbenzene	2021/10/20		104	%	50 - 140
			o-Xylene	2021/10/20		102	%	50 - 140
			p+m-Xylene	2021/10/20		100	%	50 - 140
			F1 (C6-C10)	2021/10/20		93	%	80 - 120
7650455	LRA	Method Blank	1,4-Difluorobenzene	2021/10/21		107	%	60 - 140
			4-Bromofluorobenzene	2021/10/21		97	%	60 - 140
			D10-o-Xylene	2021/10/21		74	%	60 - 140
			D4-1,2-Dichloroethane	2021/10/21		102	%	60 - 140
			Benzene	2021/10/21	<0.020		ug/g	
			Toluene	2021/10/21	<0.020		ug/g	
			Ethylbenzene	2021/10/21	<0.020		ug/g	
			o-Xylene	2021/10/21	<0.020		ug/g	
			p+m-Xylene	2021/10/21	<0.040		ug/g	
			Total Xylenes	2021/10/21	<0.040		ug/g	
			F1 (C6-C10)	2021/10/21	<10		ug/g	
			F1 (C6-C10) - BTEX	2021/10/21	<10		ug/g	
7650455	LRA	RPD	Benzene	2021/10/21	NC		%	50
			Toluene	2021/10/21	NC		%	50

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Ethylbenzene	2021/10/21	NC		%	50
			o-Xylene	2021/10/21	NC		%	50
			p+m-Xylene	2021/10/21	NC		%	50
			Total Xylenes	2021/10/21	NC		%	50
			F1 (C6-C10)	2021/10/21	19		%	30
			F1 (C6-C10) - BTEX	2021/10/21	19		%	30
7650898	VIV	Matrix Spike [QZM462-01]	Acid Extractable Antimony (Sb)	2021/10/21		102	%	75 - 125
			Acid Extractable Arsenic (As)	2021/10/21		99	%	75 - 125
			Acid Extractable Barium (Ba)	2021/10/21		105	%	75 - 125
			Acid Extractable Beryllium (Be)	2021/10/21		99	%	75 - 125
			Acid Extractable Boron (B)	2021/10/21		98	%	75 - 125
			Acid Extractable Cadmium (Cd)	2021/10/21		107	%	75 - 125
			Acid Extractable Chromium (Cr)	2021/10/21		106	%	75 - 125
			Acid Extractable Cobalt (Co)	2021/10/21		100	%	75 - 125
			Acid Extractable Copper (Cu)	2021/10/21		99	%	75 - 125
			Acid Extractable Lead (Pb)	2021/10/21		105	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2021/10/21		107	%	75 - 125
			Acid Extractable Nickel (Ni)	2021/10/21		103	%	75 - 125
			Acid Extractable Selenium (Se)	2021/10/21		106	%	75 - 125
			Acid Extractable Silver (Ag)	2021/10/21		105	%	75 - 125
			Acid Extractable Thallium (Tl)	2021/10/21		106	%	75 - 125
			Acid Extractable Uranium (U)	2021/10/21		101	%	75 - 125
			Acid Extractable Vanadium (V)	2021/10/21		107	%	75 - 125
			Acid Extractable Zinc (Zn)	2021/10/21		106	%	75 - 125
			Acid Extractable Mercury (Hg)	2021/10/21		97	%	75 - 125
7650898	VIV	Spiked Blank	Acid Extractable Antimony (Sb)	2021/10/21		102	%	80 - 120
			Acid Extractable Arsenic (As)	2021/10/21		99	%	80 - 120
			Acid Extractable Barium (Ba)	2021/10/21		99	%	80 - 120
			Acid Extractable Beryllium (Be)	2021/10/21		97	%	80 - 120
			Acid Extractable Boron (B)	2021/10/21		97	%	80 - 120
			Acid Extractable Cadmium (Cd)	2021/10/21		102	%	80 - 120
			Acid Extractable Chromium (Cr)	2021/10/21		99	%	80 - 120
			Acid Extractable Cobalt (Co)	2021/10/21		100	%	80 - 120
			Acid Extractable Copper (Cu)	2021/10/21		101	%	80 - 120
			Acid Extractable Lead (Pb)	2021/10/21		105	%	80 - 120
			Acid Extractable Molybdenum (Mo)	2021/10/21		103	%	80 - 120
			Acid Extractable Nickel (Ni)	2021/10/21		100	%	80 - 120
			Acid Extractable Selenium (Se)	2021/10/21		105	%	80 - 120
			Acid Extractable Silver (Ag)	2021/10/21		104	%	80 - 120
			Acid Extractable Thallium (Tl)	2021/10/21		106	%	80 - 120
			Acid Extractable Uranium (U)	2021/10/21		100	%	80 - 120
			Acid Extractable Vanadium (V)	2021/10/21		99	%	80 - 120
			Acid Extractable Zinc (Zn)	2021/10/21		104	%	80 - 120
			Acid Extractable Mercury (Hg)	2021/10/21		96	%	80 - 120
7650898	VIV	Method Blank	Acid Extractable Antimony (Sb)	2021/10/21	<0.20		ug/g	
			Acid Extractable Arsenic (As)	2021/10/21	<1.0		ug/g	
			Acid Extractable Barium (Ba)	2021/10/21	<0.50		ug/g	
			Acid Extractable Beryllium (Be)	2021/10/21	<0.20		ug/g	
			Acid Extractable Boron (B)	2021/10/21	<5.0		ug/g	
			Acid Extractable Cadmium (Cd)	2021/10/21	<0.10		ug/g	

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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Chromium (Cr)	2021/10/21	<1.0		ug/g	
			Acid Extractable Cobalt (Co)	2021/10/21	<0.10		ug/g	
			Acid Extractable Copper (Cu)	2021/10/21	<0.50		ug/g	
			Acid Extractable Lead (Pb)	2021/10/21	<1.0		ug/g	
			Acid Extractable Molybdenum (Mo)	2021/10/21	<0.50		ug/g	
			Acid Extractable Nickel (Ni)	2021/10/21	<0.50		ug/g	
			Acid Extractable Selenium (Se)	2021/10/21	<0.50		ug/g	
			Acid Extractable Silver (Ag)	2021/10/21	<0.20		ug/g	
			Acid Extractable Thallium (Tl)	2021/10/21	<0.050		ug/g	
			Acid Extractable Uranium (U)	2021/10/21	<0.050		ug/g	
			Acid Extractable Vanadium (V)	2021/10/21	<5.0		ug/g	
			Acid Extractable Zinc (Zn)	2021/10/21	<5.0		ug/g	
			Acid Extractable Mercury (Hg)	2021/10/21	<0.050		ug/g	
7650898	VIV	RPD [QZM462-01]	Acid Extractable Antimony (Sb)	2021/10/21	NC		%	30
			Acid Extractable Arsenic (As)	2021/10/21	NC		%	30
			Acid Extractable Barium (Ba)	2021/10/21	7.1		%	30
			Acid Extractable Beryllium (Be)	2021/10/21	NC		%	30
			Acid Extractable Boron (B)	2021/10/21	NC		%	30
			Acid Extractable Cadmium (Cd)	2021/10/21	NC		%	30
			Acid Extractable Chromium (Cr)	2021/10/21	0.68		%	30
			Acid Extractable Cobalt (Co)	2021/10/21	5.1		%	30
			Acid Extractable Copper (Cu)	2021/10/21	5.1		%	30
			Acid Extractable Lead (Pb)	2021/10/21	1.4		%	30
			Acid Extractable Molybdenum (Mo)	2021/10/21	NC		%	30
			Acid Extractable Nickel (Ni)	2021/10/21	2.8		%	30
			Acid Extractable Selenium (Se)	2021/10/21	NC		%	30
			Acid Extractable Silver (Ag)	2021/10/21	NC		%	30
			Acid Extractable Thallium (Tl)	2021/10/21	NC		%	30
			Acid Extractable Uranium (U)	2021/10/21	5.7		%	30
			Acid Extractable Vanadium (V)	2021/10/21	7.4		%	30
			Acid Extractable Zinc (Zn)	2021/10/21	2.3		%	30
			Acid Extractable Mercury (Hg)	2021/10/21	NC		%	30

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

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

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

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

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

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

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

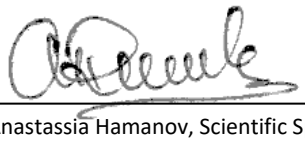
Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21

Stantec Consulting Ltd
Client Project #: 122120345
Site Location: 358 REYNOLDS ST, OAKVILLE
Sampler Initials: SMC

VALIDATION SIGNATURE PAGE

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



Anastassia Hamanov, Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

20-Oct-21 13:15

Ronklin Gracian

C1U6428

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

CHAIN OF CUSTODY RECORD

ENV COC - 00014v2

Page 1 of 1

JKX ENV-1403

		Report Information (if differs from invoice)		Project Information	
Company:	Stantec	Company:	Stantec	Quotation #:	Stantec
Contact Name:	Accounts Payable	Contact Name:	Sean Brown	P.O. #/ AFE#:	
Street Address:	675 cochrane Dr	Street Address:	Same	Project #:	122120345
City: Markham Prov: ON Postal Code:		City: Prov: Postal Code:		Site #:	358 Reynolds St
Phone:	905-944-7777	Phone:	416-606-5985	Site Location:	Oakville
Email:		Email:	Sean.Brown@Stantec.com	Site Location Province:	Ontario
Copies:		Copies:		Sampled By:	S.McCutcheon

LAB USE ONLY - PLACE STICKER HERE

Rush Confirmation #: RGN1020-01

Regulatory Criteria

REG 153: ☐ Table 1 ☒ Table 2 ☐ Table 3 ☐ Table ____ | ☒ Res/Park ☐ Ind/Comm ☐ Agri/other | ☐ Med/Fine ☐ Course ☒ For RSC

OTHER: ☐ CCME ☐ Reg 558* *min 3 day TAT ☐ MISA ☐ PWQO | ☐ Reg 406, Table: ____ ☐ Sanitary Sewer Bylaw ☐ Storm Sewer Bylaw Municipality ____ ☐ Other:

Include Criteria on Certificate of Analysis (check if yes): ☐

SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Identification	Date Sampled YY	MM	DD	Time (24hr) HH	MM	Matrix	FIELD FILTERED	FIELD PRESERVED	LAB FILTRATION REQUIRED	BTEX/ F1	F2 - F4	VOCs	Reg 153 metals and inorganics	Reg 153 ICPMS metals	Reg 153 metals (Hg, Cr VI, ICPMS metals, HWS - B)	Mercury	# OF CONTAINERS SUBMITTED	HOLD - DO NOT ANALYZE
1	GS21-01	21	10	20	10	25	Soil				X	X			X		X	4	
2	GS21-02	21	10	20	10	35	Soil				X	X			X		X	4	
3	GS21-03	21	10	20	10	45	Soil				X	X			X		X	4	
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Regular Turnaround Time (TAT)

☐ 5 to 7 Day ☐ 10 Day

Rush Turnaround Time (TAT) Surcharges apply

☐ Same Day ☒ 1 Day ☐ 2 Day ☐ 3 Day ☐ 4 Day

Date Required: YY MM DD

Comments

RUSH

REC'D IN WATERLOO

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

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present						
Seal intact						
Cooling media present						

LAB USE ONLY	Yes	No	°C	1	2	3
Seal present		X				
Seal intact		X				
Cooling media present	✓	ice		5	6	5

LAB USE ONLY	Yes	No	°C	1	2	3	Temperature reading by:
Seal present	✓						
Seal intact	✓						
Cooling media present	✓			2	3	7	

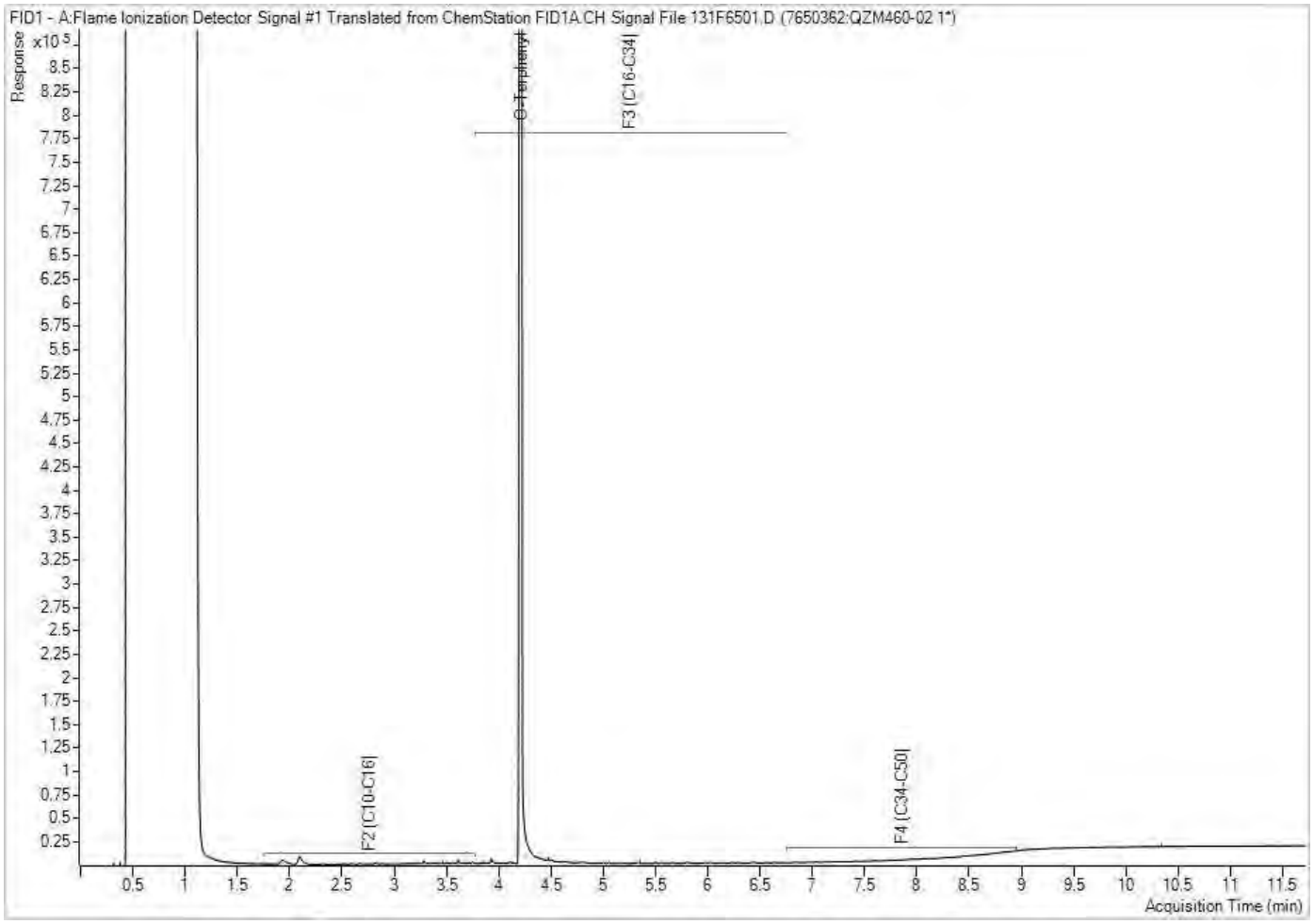
	Relinquished by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM	Received by: (Signature/ Print)	Date YY	MM	DD	Time HH	MM	Special Instructions
1	S McCutcheon	21	10	20	13	10	1 Tousen JANSEN DONSEN	2021	10	20	13	15	
2							2 Kavithaselvan	2021	10	20	17	47	

BV # 021R9

Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21
Bureau Veritas Sample: QZM460

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: GS21-01

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

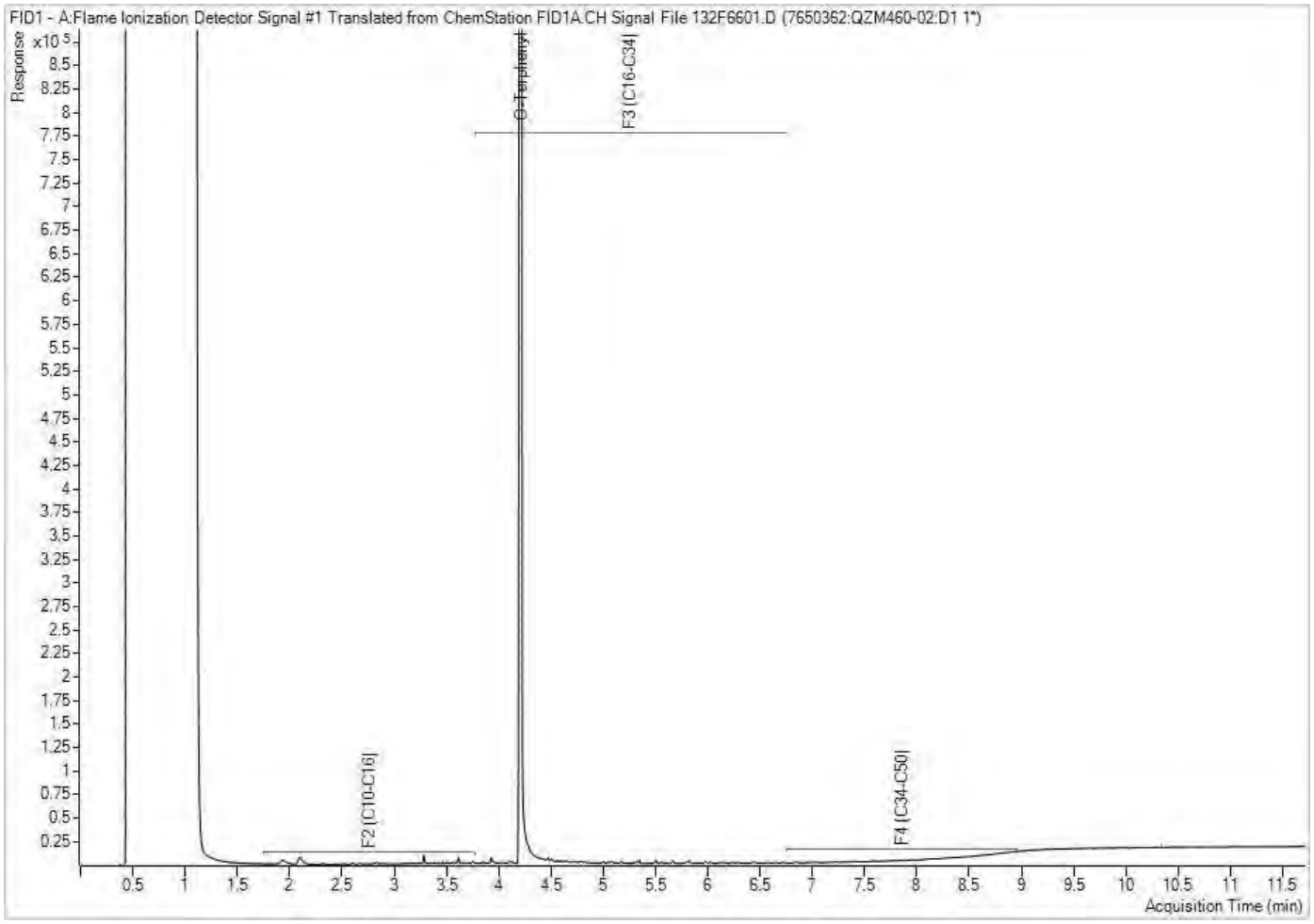


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21
Bureau Veritas Sample: QZM460 Lab-Dup

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: GS21-01

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

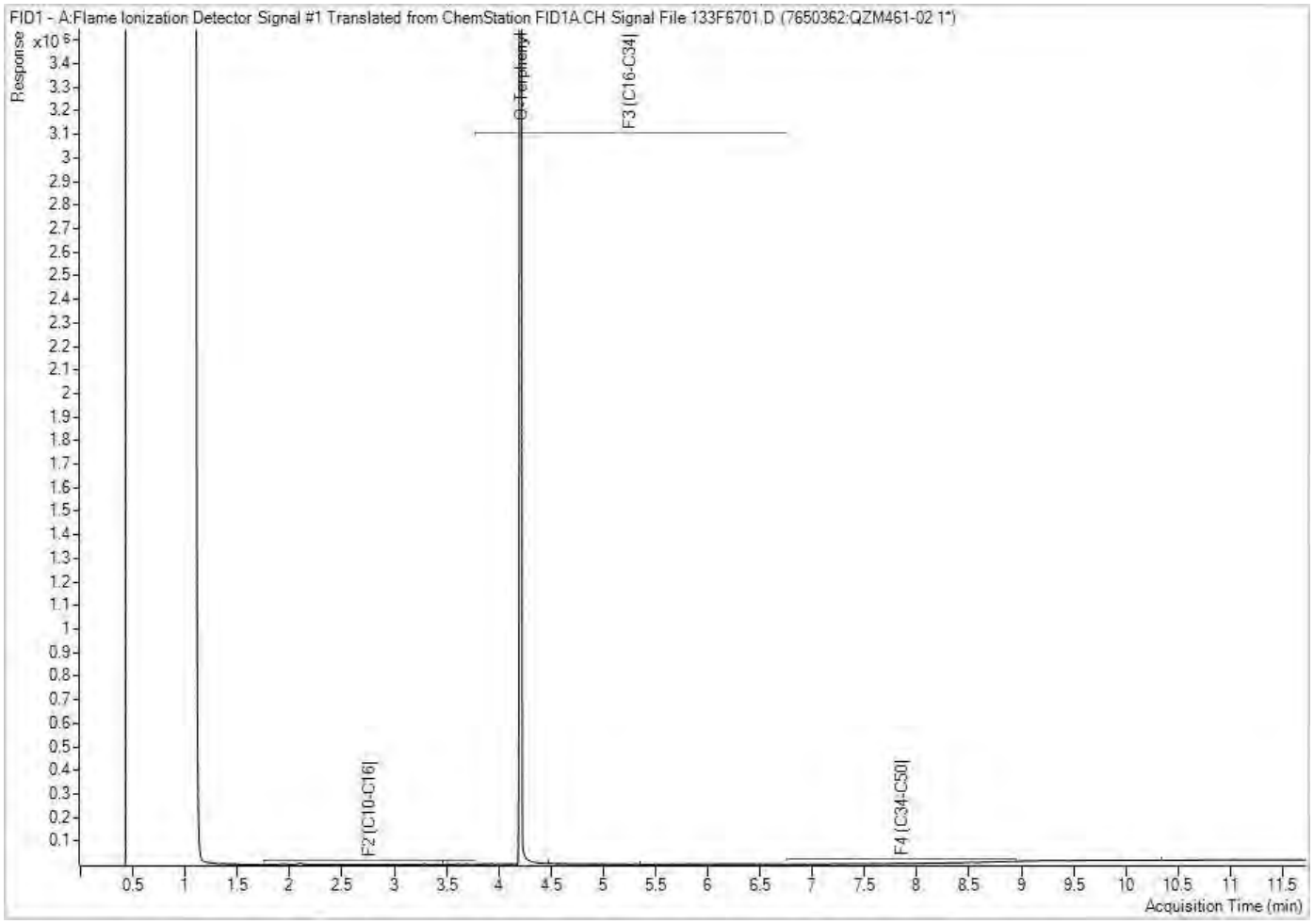


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21
Bureau Veritas Sample: QZM461

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: GS21-02

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

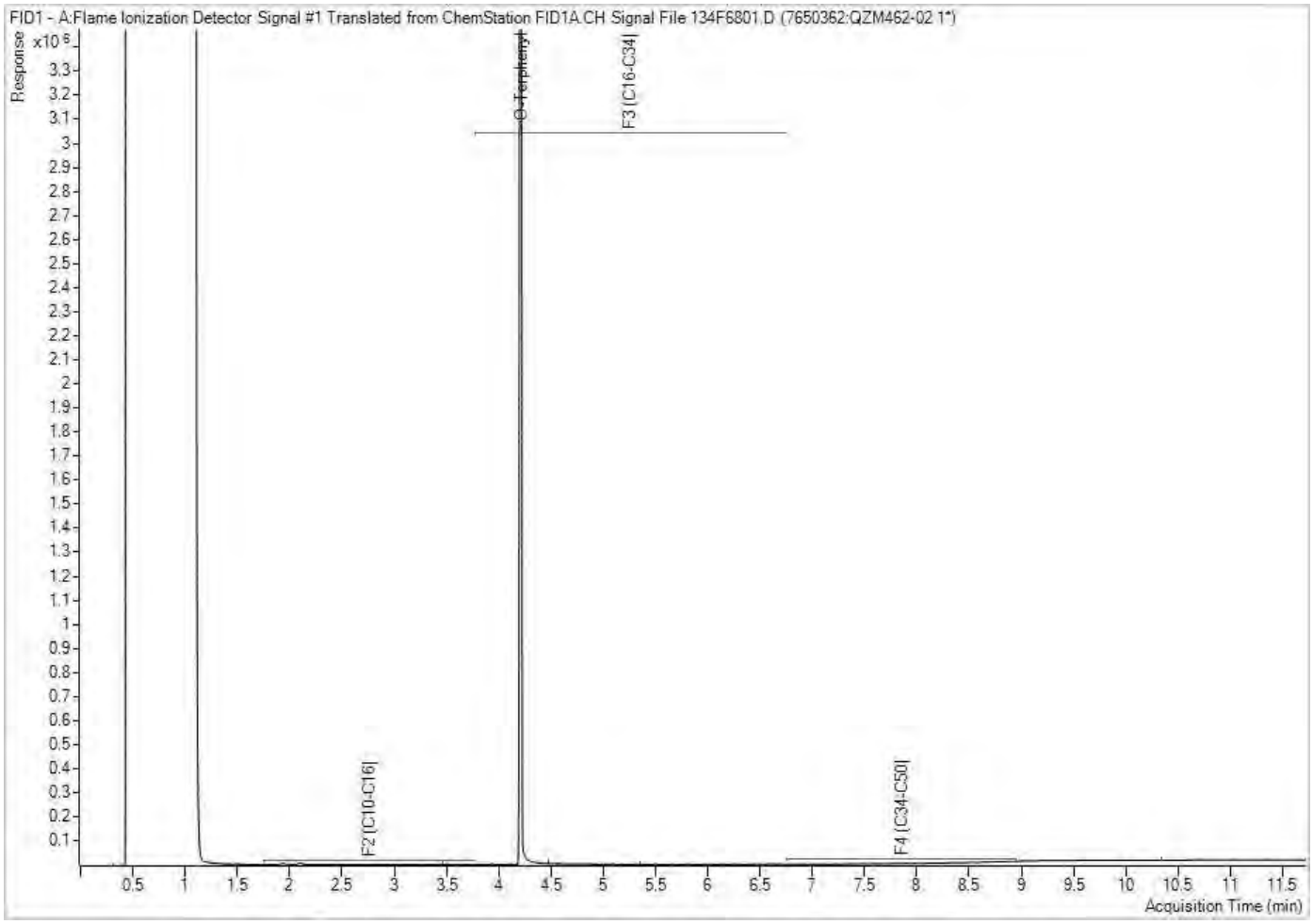


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C1U6428
Report Date: 2021/10/21
Bureau Veritas Sample: QZM462

Stantec Consulting Ltd
Client Project #: 122120345
Project name: 358 REYNOLDS ST, OAKVILLE
Client ID: GS21-03

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

APPENDIX C SOIL EXCAVATED AT OR BROUGHT TO THE PHASE TWO PROPERTY

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-93247

Weighmaster: RYAN RAI

Date	Date
15-Oct-2020 1:12 pm	15-Oct-2020 1:12 pm

Vehicle: BD79708 - ITECH 100910
Reference:
BOL: NO BOL #

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	36,350.00	kg
TARE WEIGHT	13,480.00	kg
NET WEIGHT	22,870.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE
Origin:

Quantity	Unit	Description	Rate	Extension	Tax	Total
22.87	MT	NON-HAZ SOIL				
1.00		SOIL ANALYSIS CHARGE				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

Customers represents and warrants that the description of the material deposited with GFL Environmental Inc. on the face hereof is accurate and that the waste does not, unless specifically noted on the face hereof, include any radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious biohazardous, toxic, hazardous or special waste such terms are defined in applicable local, provincial or federal law. Customer agrees to indemnify and save GFL Environmental Inc , it's directors, officers and employees, harmless from any and all costs and expenses (including without limitation any line or penalty imposed upon GFL Environmental Inc.) which GFL Environmental Inc. may incur arising from or as a result of any misrepresentation of the waste

Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-93253

Weighmaster: RYAN RAI

Date	Date
15-Oct-2020 1:20 pm	15-Oct-2020 1:20 pm

Vehicle: AT65713 - ITECH 070101
Reference:
BOL: NO BOL #

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	28,710.00	kg
TARE WEIGHT	17,400.00	kg
NET WEIGHT	11,310.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE
Origin:

Quantity	Unit	Description	Rate	Extension	Tax	Total
11.31	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-94942

Weighmaster: RYAN RAI

Date	Date
10-Nov-2020 9:46 am	10-Nov-2020 9:46 am

Vehicle: BD79708 - ITECH 100910
Reference:
BOL: no bol #

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	16,850.00	kg
TARE WEIGHT	13,480.00	kg
NET WEIGHT	3,370.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
3.37	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-99233

Weighmaster: RYAN RAI

Date	Date
04-May-2021 11:59 am	04-May-2021 11:59 am

Vehicle: BD79708 - ITECH 100910
Reference:
BOL: no bol #

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	17,530.00	kg
TARE WEIGHT	13,480.00	kg
NET WEIGHT	4,050.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
4.05	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-101530

Weighmaster: RYAN RAI

Date	Date
07-Jun-2021 1:35 pm	07-Jun-2021 1:50 pm

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	37,540.00	kg
TARE WEIGHT	16,010.00	kg
NET WEIGHT	21,530.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
21.53	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-101636

Weighmaster: RYAN RAI

Date	Date
08-Jun-2021 9:37 am	08-Jun-2021 9:55 am

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	35,100.00	kg
TARE WEIGHT	16,390.00	kg
NET WEIGHT	18,710.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
18.71	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-101800

Weighmaster: RYAN RAI

Date	Date
09-Jun-2021 9:30 am	09-Jun-2021 9:30 am

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	34,970.00	kg
TARE WEIGHT	16,390.00	kg
NET WEIGHT	18,580.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
18.58	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-101986

Weighmaster: RYAN RAI

Date	Date
10-Jun-2021 10:11 am	10-Jun-2021 10:11 am

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	37,240.00	kg
TARE WEIGHT	16,280.00	kg
NET WEIGHT	20,960.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
20.96	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

Customers represents and warrants that the description of the material deposited with GFL Environmental Inc. on the face hereof is accurate and that the waste does not, unless specifically noted on the face hereof, include any radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious biohazardous, toxic, hazardous or special waste such terms are defined in applicable local, provincial or federal law. Customer agrees to indemnify and save GFL Environmental Inc , it's directors, officers and employees, harmless from any and all costs and expenses (including without limitation any line or penalty imposed upon GFL Environmental Inc.) which GFL Environmental Inc. may incur arising from or as a result of any misrepresentation of the waste

Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-102017

Weighmaster: RYAN RAI

Date	Date
10-Jun-2021 11:31 am	10-Jun-2021 11:31 am

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	35,450.00	kg
TARE WEIGHT	16,280.00	kg
NET WEIGHT	19,170.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
19.17	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

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Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-102043

Weighmaster: RYAN RAI

Date	Date
10-Jun-2021 12:54 pm	10-Jun-2021 12:54 pm

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	37,270.00	kg
TARE WEIGHT	16,280.00	kg
NET WEIGHT	20,990.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
20.99	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

Customers represents and warrants that the description of the material deposited with GFL Environmental Inc. on the face hereof is accurate and that the waste does not, unless specifically noted on the face hereof, include any radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious biohazardous, toxic, hazardous or special waste such terms are defined in applicable local, provincial or federal law. Customer agrees to indemnify and save GFL Environmental Inc , it's directors, officers and employees, harmless from any and all costs and expenses (including without limitation any line or penalty imposed upon GFL Environmental Inc.) which GFL Environmental Inc. may incur arising from or as a result of any misrepresentation of the waste

Signature: _____

H.S.T # 84188 4893RT0001

REPRINT

GFL ENVIRONMENTAL INC.
85 Vickers Rd
Toronto, ON M9B 1C1
PH:(416) 745-8080 FX:(416) 745-3478

Ticket: CS-102076

Weighmaster: RYAN RAI

Date	Date
10-Jun-2021 2:16 pm	10-Jun-2021 2:16 pm

Vehicle: BE91532 - ITECH
Reference:
BOL:

003207 - Itech Precision Group Inc
200 Hachborn Road
Brantford, ON N3S 7W5

INBOUND

GROSS WEIGHT	36,480.00	kg
TARE WEIGHT	16,280.00	kg
NET WEIGHT	20,200.00	kg

Contract: 20200611- 358 REYNOLDS STREET OAKVILLE

Quantity	Unit	Description	Rate	Extension	Tax	Total
20.20	MT	NON-HAZ SOIL				

TERMS AND CONDITIONS FOR DISPOSAL

User of this facility assume all liability for any injury or damage to person or property arising from or contributed to by users' failure to comply with procedures posted by GFL Environmental Inc. and/or instructions provided by a GFL Environmental Inc. attendant.

Customers represents and warrants that the description of the material deposited with GFL Environmental Inc. on the face hereof is accurate and that the waste does not, unless specifically noted on the face hereof, include any radioactive, volatile, corrosive, highly flammable, explosive, biomedical, infectious biohazardous, toxic, hazardous or special waste such terms are defined in applicable local, provincial or federal law. Customer agrees to indemnify and save GFL Environmental Inc , it's directors, officers and employees, harmless from any and all costs and expenses (including without limitation any line or penalty imposed upon GFL Environmental Inc.) which GFL Environmental Inc. may incur arising from or as a result of any misrepresentation of the waste

Signature: _____

H.S.T # 84188 4893RT0001

Invoice

SHIP TO

ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

1692781

LAFARGE

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

*

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

76221	10/16/2020	713617373
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Sales District: 7568 DUSTIN THIBODEAU GST# 10293 0856 RT0001 QST# 1002502026 TQ0002

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
10/14	BURL	FP	79073296	358 REYNOLDS STREET, OAKVILLE				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	8.000	M3	142.00	1,136.00
				910665:TOARC/CARBON TAX FEES (M3)	8.000	M3	1.40	11.20
				908737:SITE WASH WATER MANAGEMENT FEE	8.000	M3	2.50	20.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	8.000	M3	2.00	16.00
				908117:ENVIRONMENTAL/ENVIRONNEMENT	8.000	M3	5.00	40.00
				Total Units	8.000	M3		
				Total Invoice Amount Before Tax				1,223.20
				HST 13.00 %				159.02
				Total Amount Due				1,382.22
				Payment Terms: EOM Prox (30 days)				
				Finance charges will be applied on overdue accounts at the rate of 1.5% per month / 18% per annum.				

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

Caution: Freshly mixed cement, concrete or grout may cause skin injury. Avoid prolonged contact with skin where possible and wash exposed areas promptly with water. If any cement mixture gets into eyes,rinse immediately and repeatedly with water and get prompt medical attention. KEEP OUT OF REACH OF CHILDREN

IMPORTANT: DETACH AND ENCLOSE THIS COUPON WITH YOUR PAYMENT

713617373
INVOICE NUMBER

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

DEDUCTION REASONS

1. Price $ _____
2. Freight $ _____
3. Tax $ _____
4. Other $ _____

REMIT TO: LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1

AMOUNT REMITTED $ _____

76221	10/16/2020	1,382.22
CUSTOMER NO.	INVOICE DATE	INVOICE AMOUNT

Invoice

SHIP TO

ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

LAFARGE

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	10/16/2020	713617373
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
				Material Summary Totals				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	8.000	M3		
				910665:TOARC/CARBON TAX FEES (M3)	8.000	M3		
				908737:SITE WASH WATER MANAGEMENT FEE	8.000	M3		
				908176:FUEL SURCHARGE/CARBURANT (M3)	8.000	M3		
				908117:ENVIRONMENTAL/ENVIRONNEMENT	8.000	M3		

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

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SEE BACK OF FIRST PAGE FOR DETAILS OF TERMS AND CONDITIONS

Invoice

SHIP TO
ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

1692781

LAFARGE

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

*
ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

76221	10/19/2020	713629527
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Sales District: 7568 DUSTIN THIBODEAU GST# 10293 0856 RT0001 QST# 1002502026 TQ0002

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
10/15	BURL	FP	79073318	358 REYNOLDS STREET, OAKVILLE				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	9.000	M3	142.00	1,278.00
				908737:SITE WASH WATER MANAGEMENT FEE	9.000	M3	2.50	22.50
				908176:FUEL SURCHARGE/CARBURANT (M3)	9.000	M3	2.00	18.00
				910665:TOARC/CARBON TAX FEES (M3)	9.000	M3	1.40	12.60
				908117:ENVIRONMENTAL/ENVIRONNEMENT	9.000	M3	5.00	45.00
				Total Units	9.000	M3		
				Total Invoice Amount Before Tax				1,376.10
				HST 13.00 %				178.90
				Total Amount Due				1,555.00
				Payment Terms: EOM Prox (30 days)				
				Finance charges will be applied on overdue accounts at the rate of 1.5% per month / 18% per annum.				

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

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IMPORTANT: DETACH AND ENCLOSE THIS COUPON WITH YOUR PAYMENT

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

713629527
INVOICE NUMBER

DEDUCTION REASONS
1. Price $ _____
2. Freight $ _____
3. Tax $ _____
4. Other $ _____

REMIT TO: LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1

AMOUNT REMITTED $ _____

76221	10/19/2020	1,555.00
CUSTOMER NO.	INVOICE DATE	INVOICE AMOUNT

Invoice

LAFARGE

SHIP TO

ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	10/19/2020	713629527
CUSTOMER NO.	**INVOICE DATE**	**INVOICE NUMBER**

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
				Material Summary Totals				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	9.000	M3		
				908737:SITE WASH WATER MANAGEMENT FEE	9.000	M3		
				908176:FUEL SURCHARGE/CARBURANT (M3)	9.000	M3		
				910665:TOARC/CARBON TAX FEES (M3)	9.000	M3		
				908117:ENVIRONMENTAL/ENVIRONNEMENT	9.000	M3		

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

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SEE BACK OF FIRST PAGE FOR DETAILS OF TERMS AND CONDITIONS

Invoice

SHIP TO

ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

1692781

*

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

LAFARGE

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	11/04/2020	713730457
CUSTOMER NO.	**INVOICE DATE**	**INVOICE NUMBER**

Sales District: 7568 DUSTIN THIBODEAU GST# 10293 0856 RT0001 QST# 1002502026 TQ0002

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
11/02	BURL	FP	79073525	358 REYNOLDS STREET, OAKVILLE				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	3.000	M3	142.00	426.00
				908498:MINIMUM LOAD	1.000	EA	150.00	150.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	3.000	M3	2.00	6.00
				908117:ENVIRONMENTAL/ENVIRONNEMENT	3.000	M3	5.00	15.00
				908737:SITE WASH WATER MANAGEMENT FEE	3.000	M3	2.50	7.50
				910665:TOARC/CARBON TAX FEES (M3)	3.000	M3	1.40	4.20
				908696:SEASONAL-HNTC RMX	3.000	M3	18.00	54.00
				Total Units	3.000	M3		
				Total Invoice Amount Before Tax				662.70
				HST 13.00 %				86.16
				Total Amount Due				748.86
				Payment Terms: EOM Prox (30 days)				
				Finance charges will be applied on overdue accounts at the rate of 1.5% per month / 18% per annum.				

FP= Freight Prepaid, ZFC= FOB Carrier Location, TON= US Tons, TO= Metric Tons, M3= Cubic Meters, EA= Each, YD3= Cubic Yards

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IMPORTANT: DETACH AND ENCLOSE THIS COUPON WITH YOUR PAYMENT

713730457
INVOICE NUMBER

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

DEDUCTION REASONS
1. Price $ _____
2. Freight $ _____
3. Tax $ _____
4. Other $ _____

REMIT TO: LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1

AMOUNT REMITTED $ _____

76221	11/04/2020	748.86
CUSTOMER NO.	**INVOICE DATE**	**INVOICE AMOUNT**

Invoice

SHIP TO

ITECH PRECISION CLEANING INC
Various HNS 2020
Various HNS
Hamilton ON L8K 5A3

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	11/04/2020	713730457
CUSTOMER NO.	**INVOICE DATE**	**INVOICE NUMBER**

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
				Material Summary Totals				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	3.000	M3		
				908498:MINIMUM LOAD	1.000	EA		
				908176:FUEL SURCHARGE/CARBURANT (M3)	3.000	M3		
				908117:ENVIRONMENTAL/ENVIRONNEMENT	3.000	M3		
				908737:SITE WASH WATER MANAGEMENT FEE	3.000	M3		
				910665:TOARC/CARBON TAX FEES (M3)	3.000	M3		
				908696:SEASONAL-HNTC RMX	3.000	M3		

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SEE BACK OF FIRST PAGE FOR DETAILS OF TERMS AND CONDITIONS

Invoice

LAFARGE

SHIP TO

ITECH PRECISION CLEANING INC
ITECH PRECISION HNS VARIOUS
Various HNS
Hamilton ON L8K 5A3

Q-298653 1742271

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

*

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

76221	06/11/2021	714581298
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Sales District: 7568 DUSTIN THIBODEAU GST# 10293 0856 RT0001 QST# 1002502026 TQ0002

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
06/08	BURL	FP	79076091	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	7.000	M3	148.00	1,036.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	7.000	M3	2.00	14.00
				908117:ENVIRONMENTAL/ENVIRONNEMENT	7.000	M3	5.00	35.00
				908737:SITE WASH WATER MANAGEMENT FEE	7.000	M3	2.50	17.50
				910665:TOARC/CARBON TAX FEES (M3)	7.000	M3	1.90	13.30
06/08	BURL	FP	79076092	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	5.000	M3	148.00	740.00
				910665:TOARC/CARBON TAX FEES (M3)	5.000	M3	1.90	9.50
				908117:ENVIRONMENTAL/ENVIRONNEMENT	5.000	M3	5.00	25.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	5.000	M3	2.00	10.00
				908737:SITE WASH WATER MANAGEMENT FEE	5.000	M3	2.50	12.50
06/09	BURL	FP	79076110	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	7.000	M3	148.00	1,036.00
				908117:ENVIRONMENTAL/ENVIRONNEMENT	7.000	M3	5.00	35.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	7.000	M3	2.00	14.00
				908737:SITE WASH WATER MANAGEMENT FEE	7.000	M3	2.50	17.50
				910665:TOARC/CARBON TAX FEES (M3)	7.000	M3	1.90	13.30
06/09	BURL	FP	79076112	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	5.000	M3	148.00	740.00
				910665:TOARC/CARBON TAX FEES (M3)	5.000	M3	1.90	9.50

FP = Freight Prepaid, ZFC = FOB Carrier Location, TON = US Tons, TO = Metric Tons, M3 = Cubic Meters, EA = Each, YD3 = Cubic Yards

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IMPORTANT: DETACH AND ENCLOSE THIS COUPON WITH YOUR PAYMENT

714581298
INVOICE NUMBER

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

DEDUCTION REASONS

1. Price $ _____
2. Freight $ _____
3. Tax $ _____
4. Other $ _____

AMOUNT REMITTED $ _____

REMIT TO: LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1

76221	06/11/2021	4,322.96
CUSTOMER NO.	INVOICE DATE	INVOICE AMOUNT

Invoice

LAFARGE

SHIP TO

ITECH PRECISION CLEANING INC
ITECH PRECISION HNS VARIOUS
Various HNS
Hamilton ON L8K 5A3

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	06/11/2021	714581298
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
				908176:FUEL SURCHARGE/CARBURANT (M3)	5.000	M3	2.00	10.00
				908117:ENVIRONMENTAL/ENVIRONNEMENT	5.000	M3	5.00	25.00
				908737:SITE WASH WATER MANAGEMENT FEE	5.000	M3	2.50	12.50
				Total Units	24.000	M3		
				Total Invoice Amount Before Tax				3,825.60
				HST 13.00 %				497.36
				Total Amount Due				4,322.96

Payment Terms: EOM Prox (30 days)

Finance charges will be applied on overdue accounts at the rate of 1.5% per month / 18% per annum.

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

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SEE BACK OF FIRST PAGE FOR DETAILS OF TERMS AND CONDITIONS

Invoice

LAFARGE

SHIP TO
ITECH PRECISION CLEANING INC
ITECH PRECISION HNS VARIOUS
Various HNS
Hamilton ON L8K 5A3

Q-298653 1742271

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

*
ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

76221	06/09/2021	714568872
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Sales District: 7568 DUSTIN THIBODEAU GST# 10293 0856 RT0001 QST# 1002502026 TQ0002

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
06/07	BURL	FP	79076082	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	7.000	M3	148.00	1,036.00
				908737:SITE WASH WATER MANAGEMENT FEE	7.000	M3	2.50	17.50
				908117:ENVIRONMENTAL/ENVIRONNEMENT	7.000	M3	5.00	35.00
				910665:TOARC/CARBON TAX FEES (M3)	7.000	M3	1.90	13.30
				908176:FUEL SURCHARGE/CARBURANT (M3)	7.000	M3	2.00	14.00
06/07	BURL	FP	79076083	358 Reynolds Street, OAKVILLE				
				PO#: 106943				
				RMXFX4N511X:0.4 MPA UNSHRINKFILL	7.000	M3	148.00	1,036.00
				908176:FUEL SURCHARGE/CARBURANT (M3)	7.000	M3	2.00	14.00
				910665:TOARC/CARBON TAX FEES (M3)	7.000	M3	1.90	13.30
				908737:SITE WASH WATER MANAGEMENT FEE	7.000	M3	2.50	17.50
				908117:ENVIRONMENTAL/ENVIRONNEMENT	7.000	M3	5.00	35.00

FP = Freight Prepaid, ZFC = FOB Carrier Location, TON = US Tons, TO = Metric Tons, M3 = Cubic Meters, EA = Each, YD3 = Cubic Yards

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IMPORTANT: DETACH AND ENCLOSE THIS COUPON WITH YOUR PAYMENT

714568872
INVOICE NUMBER

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

DEDUCTION REASONS
1. Price $ _____
2. Freight $ _____
3. Tax $ _____
4. Other $ _____

AMOUNT REMITTED $ _____

REMIT TO: LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1

76221	06/09/2021	2,521.72
CUSTOMER NO.	INVOICE DATE	INVOICE AMOUNT

Invoice

LAFARGE

SHIP TO

ITECH PRECISION CLEANING INC
ITECH PRECISION HNS VARIOUS
Various HNS
Hamilton ON L8K 5A3

ITECH PRECISION CLEANING INC
200 HACHBORN RD
BRANTFORD ON N3S 7W5

Direct inquiries to:
LAFARGE CANADA INC.
T10088, P.O. BOX 10088, Postal Station A,
Toronto ON M5W 2B1
Phone: 1-855-339-4900

76221	06/09/2021	714568872
CUSTOMER NO.	INVOICE DATE	INVOICE NUMBER

Ship Date	Plant	FOB FP	Bill of Lading#	Material Description	Quantity	U/M	Unit Price	Gross Amount
				Total Units	14.000	M3		
				Total Invoice Amount Before Tax				2,231.60
				HST 13.00 %				290.12
				Total Amount Due				2,521.72
				Payment Terms: EOM Prox (30 days)				
				Finance charges will be applied on overdue accounts at the rate of 1.5% per month / 18% per annum.				

FP=Freight Prepaid, ZFC=FOB Carrier Location, TON=US Tons, TO=Metric Tons, M3=Cubic Meters, EA=Each, YD3=Cubic Yards

Caution: Freshly mixed cement, concrete or grout may cause skin injury. Avoid prolonged contact with skin where possible and wash exposed areas promptly with water. If any cement mixture gets into eyes,rinse immediately and repeatedly with water and get prompt medical attention. KEEP OUT OF REACH OF CHILDREN

SEE BACK OF FIRST PAGE FOR DETAILS OF TERMS AND CONDITIONS

Lafarge 3N65 | **FBA Dixie Interlock #2 Yard** 2531 Cawthra Rd | GST # 10293 0856 905-277-9607

Ticket: 136154912 6/15/2021 11:28:18AM

Customer: 76221 ITECH PRECISION CLEANING INC
Order: 400723485 2021: GTA FOB VARIOUS C- ITECH PREC

P.O.:
Dispatch 0 Pickup

Truck: IPC910-3X License: BD79708
Hauler: 4000000 CUSTOMER VEHICLE
Zone: ZONE0 Max GVW 35,000

Product: 9370 GRANULAR A * Manual P. T

	Kg		Lbs		
Gross:	34060		75089	909375	ENVIRONMEN
Tare:	13200	*	29101 *	909379	TOARC FEE
Net:	20860		45988	912049	CARBON TAX

Quantity: 20.86 Metric Ton
Today: 20.86 Metric Ton
Loads: 1

Cash Sale Price Amount
Material:
Other: 106943

Tax:
Total:

TICKET: 136154912 Location: 3N65 Vehicle: IPC910-3X Tare: 13200 Net: 20.86

5

Scale: 2 Weighmaster: Jamie E

RECEIVED: _____

Lafarge 3N65 | **FBA Dixie Interlock #2 Yard** 2531 Cawthra Rd | GST # 10293 0856 905-277-9607

Ticket: 136154190 6/9/2021 10:16:18A

Customer: 76221 ITECH PRECISION CLEANING INC
Order: 400723485 2021: GTA FOB VARIOUS C- ITECH PREC

P.O.: GARY
Dispatch 0 Pickup

Truck: ITECH001-3X License: BE91532
Hauler: 4000000 CUSTOMER VEHICLE
Zone: ZONE0 Max GVW 36,00

Product: 9025 20-14MM CLEAR LIMESTONE * Manual P

	Kg		Lbs		
Gross:	33880		74693	909375	ENVIRONMEN
Tare:	16200	*	35715 *	909379	TOARC FEE
Net:	17680		38978	912049	CARBON TAX

Quantity: 17.68 Metric Ton
Today: 17.68 Metric Ton
Loads: 1

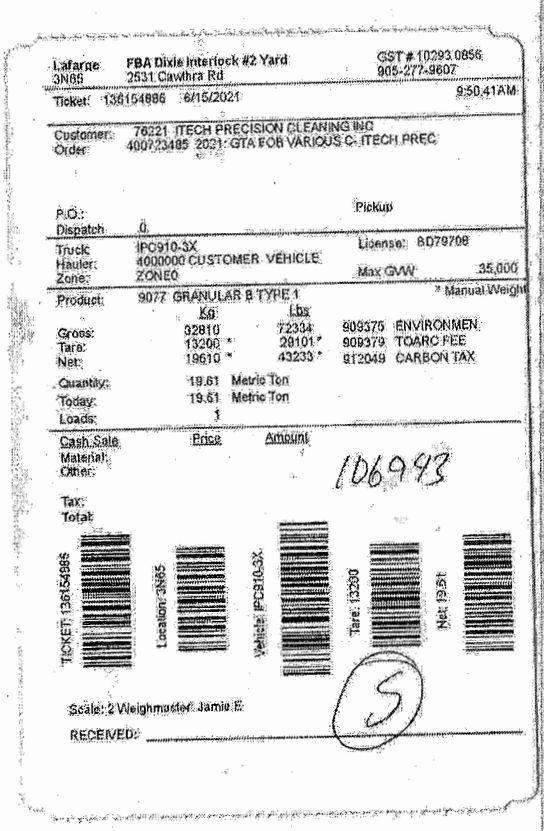
Cash Sale Price Amount
Material:
Other: 106943

Tax:
Total:

TICKET: 136154190 Location: 3N65 Vehicle: ITECH001-3X Tare: 16200 Net: 17.68

Scale: 2 Weighmaster: Jamie E

RECEIVED: _____



Lafarge 3N65 — FBA Dixie Interlock #2 Yard, 2531 Clawhra Rd — GST # 10293 0856, 905-277-9607

Ticket: 136154886 6/15/2021 9:50:41AM

Customer: 76221 ITECH PRECISION CLEANING INC
Order: 400723485 2021 GTA FOB VARIOUS C ITECH PREC

P.O.:
Dispatch: 0

Pickup

Truck: IPC910-3X — License: BD79708
Hauler: 4000000 CUSTOMER VEHICLE
Zone: ZONE0 — Max GVW: 35,000

Product: 9077 GRANULAR B TYPE 1 — * Manual Weight

	Kg	Lbs		
Gross:	32810	72334	909375	ENVIRONMEN
Tare:	13200 *	29101 *	909379	TOARC FEE
Net:	19610 *	43233 *	912049	CARBON TAX

Quantity: 19.61 Metric Ton
Today: 19.61 Metric Ton
Loads: 1

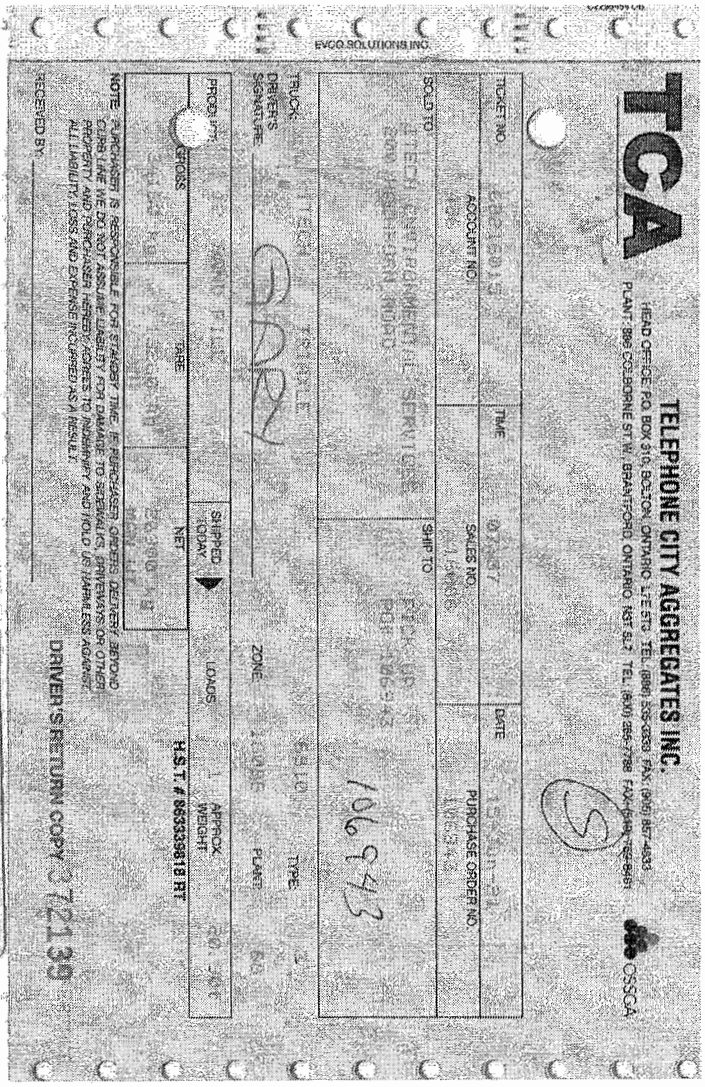
Cash Sale — Price — Amount
Material:
Other:
106948
Tax:
Total:

TICKET: 136154886 Location: 3N65 Vehicle: IPC910-3X Tare: 13200 Net: 19610

Scale: 2 Weighmaster: Jamie E

RECEIVED: _____

5



TCA

TELEPHONE CITY AGGREGATES INC.

HEAD OFFICE: P.O. BOX 310, BOLTON, ONTARIO L7E 5T3 TEL: (905) 857-4833 FAX: (905) 857-4833
PLANT: 286 COLBORNE ST W., BRANTFORD, ONTARIO N3T 5L7 TEL: (800) 265-7788 FAX: (519) 756-8461

OSSGA

EVCO SOLUTIONS INC.

TICKET NO. 136154886 — DATE 15/06/21 — TIME 09:37:37

ACCOUNT NO. 4000723485 — SALES NO. 1-1-1-1-1-6 — PURCHASE ORDER NO. 1-1-1-1-1-3-4-3

SOLD TO: ITECH ENVIRONMENTAL SERVICES, 2000 WINSTON PARK DRIVE, OAKVILLE, ON L6H 5R7

SHIP TO: ITECH, 5310 LE [illegible], MISSISSAUGA, ON L4W 1P1

TRUCK: ITECH — DRIVER'S SIGNATURE: [signature]

ZONE: 1 ZONE — TYPE: [illegible] — PLANT: 50

PRODUCT: 9077 GRANULAR B TYPE 1

GROSS: 72,330 LB — TARE: 29,100 LB — NET: 43,230 LB

SHIPPED TODAY: 19.61 — LOADS: 1 — APPROX WEIGHT: 20 TONS

H.S.T. # 863339819 RT

106948

NOTE: PURCHASER IS RESPONSIBLE FOR STANDBY TIME IF PURCHASER ORDERS DELIVERY BEYOND CERTAIN TIME WE DO NOT ASSUME LIABILITY FOR DAMAGE TO SIDEWALKS, DRIVEWAYS OR OTHER PROPERTY AND PURCHASER HEREBY AGREES TO INDEMNIFY AND HOLD US HARMLESS AGAINST ALL LIABILITY, LOSS AND EXPENSE INCURRED AS A RESULT.

RECEIVED BY: _____ DRIVER'S RETURN COPY 72139

5

Clearer duplicate copy of above weigh-bill follows on next page.

TELEPHONE CITY AGGREGATES INC.

HEAD OFFICE: P.O. BOX 310, BOLTON, ONTARIO L7E 5T3 TEL: (888) 535-3333 FAX: (905) 857-4833
PLANT: 886 COLBORNE ST. W., BRANTFORD, ONTARIO N3T 5L7 TEL: (800) 265-7788 FAX: (519) 759-8481

OSSGA

(S)

TICKET NO.	TIME	DATE
68216015	07:37	15-Jun-21
ACCOUNT NO.	**SALES NO.**	**PURCHASE ORDER NO.**
496	16086	106943

SOLD TO	SHIP TO
ITECH ENVIRONMENTAL SERVICES 200 HACHBORN ROAD	PICK UP PO# 106943 106943

TRUCK: ITECH TRIAXLE 6810 TYPE: 3

DRIVER'S SIGNATURE: GARY. L# ZONE: 16086 PLANT: 68

PRODUCT:	SHIPPED TODAY ▶	LOADS	APPROX. WEIGHT
12 SAND FILL		1	20.90t

GROSS	TARE	NET
34160 kg	13260 kg	20900 kg MAN WT

H.S.T. # 863339818 RT

NOTE: *PURCHASER IS RESPONSIBLE FOR STANDBY TIME. IF PURCHASER ORDERS DELIVERY BEYOND CURB LINE WE DO NOT ASSUME LIABILITY FOR DAMAGE TO SIDEWALKS, DRIVEWAYS OR OTHER PROPERTY AND PURCHASER HEREBY AGREES TO INDEMNIFY AND HOLD US HARMLESS AGAINST ALL LIABILITY, LOSS AND EXPENSE INCURRED AS A RESULT.*

DRIVER'S RETURN COPY 372139 INVOICE #

RECEIVED BY: _____