



## **Soil Assessment**

19085 119B Avenue  
Pitt Meadows, BC

**May 5, 2022**

Prepared for:

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4515 Central Blvd.  
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Prepared by:

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Project # 123315738



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## Executive Summary

Stantec Consulting Ltd. (Stantec) was retained by Metro Vancouver Housing Corporation (hereafter referred to as MVHC or the "Client") to conduct a Soil Assessment at the property located at 19085 119B Ave, Pitt Meadows, BC, herein referred to as the "Site". This assessment is being performed in support of soil quality determination and soil management processes associated with the future construction at the Site which is expected to have underground parking.

A Phase I Environmental Site Assessment (ESA) was conducted in October 2021, by Metro Testing & Engineering Ltd. (Metro), prior to the execution of this Assessment. This investigation identified one areas of potential environmental concern (APEC). This Soil Assessment was conducted on the Site to assess the soil quality in proximity to this APEC, summarized in the table below:

APEC	Potential Contaminants of Concern (PCOC)
1 – On-Site Fill Soil	LEPH, HEPH, PAHs, BTEX, VPH, Metals, Salinity (Sodium and Chloride)

Notes: LEPH/HEPH – light/heavy extractable petroleum hydrocarbons

PAH – polycyclic aromatic hydrocarbons

BTEX – benzene, toluene, ethylbenzene, and xylenes

VPH – volatile petroleum hydrocarbons

Ten boreholes were advanced, with three of them completed as groundwater monitoring wells. Soil samples from these boreholes, and groundwater samples from the monitoring wells, were submitted for laboratory analyses of the PCOCs associated with this APEC. The results of the groundwater sampling are provided under separate cover.

Based on the results of this Soil Assessment, and in consideration of the applicable British Columbia Contaminated Sites Regulations (BC CSR) standards, Stantec provides the following conclusions for the Site:

- The reported concentration of chloride ion at BH21-08 SA01, BH21-08 SA02 and BH21-09 SA04 are greater than the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards
- The reported concentrations of the remaining metals and inorganic parameters in analyzed soil samples are below the applicable BC CSR agricultural (AL), residential low density (RL<sub>LD</sub>), residential high density, (RL<sub>HD</sub>), commercial (CL) and industrial (IL) standards
- The reported concentrations LEPH, HEPH, PAHs, BTEX and VPH in analyzed soil samples are less than the BC CSR AL, RL<sub>LD</sub>, RL<sub>HD</sub>, CL, and IL standards

Samples analyzed in the fill layer did not have concentrations of PCOCs which exceeded the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards. It is Stantec's opinion that the chloride exceedances are likely due to the application of road salt during the winter months as these exceedances were not observed in the fill layer.



Further delineation and characterization (e.g., soil sampling from test pits) of the identified chloride-contaminated soil is recommended prior to or during the preparation of the Site for excavation to determine the volume of contaminated soils requiring disposal. Chloride contaminated soil should be disposed of at an appropriately permitted waste management facility. Soils that are within the AL standards may be disposed of at any site permitted to accept soil which meets AL standards.

The statements made in this Executive Summary are subject to the same limitations included in the Closure of this Report (Section 10.0) and are to be read in conjunction with the remainder of this report.



## Abbreviations

AEC	Area of environmental concern
ALR	Agricultural Land Reserve
APEC	Area of potential environmental concern
AWF	Aquatic life (freshwater)
BC	British Columbia
BCWRA	British Columbia Water Resources Atlas
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CALA	Canadian Association for Laboratory Accreditation
COC	Contaminant of concern
CRM	Certified reference material
CSR	Contaminated Sites Regulation
DW	Drinking Water
EPH	Extractable petroleum hydrocarbons
ESA	Environmental Site Assessment
ENV	BC Ministry of Environment and Climate Change Strategy
HEPH	Heavy Extractable Petroleum Hydrocarbons
HSV <sub>L</sub>	Headspace vapour level
IBL	Isobutylene
IW	Irrigation watering
LEPH	Light extractable petroleum hydrocarbons
LTD <sub>L</sub>	Less than detection limit
LW	Livestock watering
mbgs	Metres below ground surface
mBTOC	Metres below top of casing
MTBE	Methyl tert-butyl ether
NAPL	Non-aqueous phase liquids
PAH	Polycyclic aromatic hydrocarbons
PCOC	Potential contaminant of concern
ppm	Parts per million
PQRA	Preliminary quantitative risk assessment
ESA	Environmental Site Assessment
QA/QC	Quality assurance/quality control
RL <sub>LD</sub>	Low-density residential land use
RPD	Relative percent difference
TG4	Technical Guidance #4
VOC	Volatile organic compounds
VPH	Volatile petroleum hydrocarbons



## **Soil Assessment**

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Introduction

## **1.0 INTRODUCTION**

Stantec Consulting Ltd. (Stantec) was retained by Metro Vancouver Housing Corporation (hereafter referred to as MVHC or the “Client”) to conduct a Soil Assessment at 19085 119B Avenue, Pitt Meadows, BC, herein referred to as the “Site”. The Site is currently occupied by a grass field and an asphalt and gravel parking lot. The boundaries of the Site are described in Section 2.0. The Site is currently occupied by a grass field and an asphalt and gravel parking lot. The boundaries of the Site are described in Section 2.0. This assessment is being performed in support of soil quality determination and soil management processes associated with the future construction at the Site which is expected to have underground parking.

Stantec has completed this assessment in general accordance with our proposal for the Site dated August 17, 2021 (21-311), CSA Phase II Environmental Site Assessment Standard Z769-00 (R2018), and with BC Ministry of Environment and Climate Change Strategy (ENV) protocols, procedures, and guidelines.

A Site Location Plan and Site Plan are presented in Figures 1 and 2 in Appendix A.

## **2.0 BACKGROUND**

A Phase I Environmental Site Assessment (ESA) was conducted in October 2021, by Metro Testing & Engineering Ltd. (Metro), prior to the execution of this assessment. The Phase I ESA identified one area of potential environmental concern (APEC). This Soil Assessment was conducted on the Site to assess the soil quality and characterisation in proximity to this APEC, summarized in Table 1 below.

**Table 1: 2021 Phase I ESA Findings Summary**

<b>APEC</b>	<b>Potential Contaminants of Concern (PCOCs)</b>
1 – On-site Fill Soil	LEPH, HEPH, PAHs, BTEX, VPH, Metals, Salinity (Sodium and Chloride)

Notes: LEPH/HEPH – light/heavy extractable petroleum hydrocarbons  
PAH – polycyclic aromatic hydrocarbons  
BTEX – benzene, toluene, ethylbenzene, and xylenes  
VPH – volatile petroleum hydrocarbons

Stantec understands that MVHC will be performing a bulk excavation at the Site and has requested this environmental work to support soil handling and disposal.

## **3.0 SCOPE OF WORK**

The scope of work for the Soil Assessment carried out by Stantec on the Site was conducted in general accordance with Stantec’s proposed work plan submitted on August 17, 2021 (21-311), and consisted of the following:



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### Regulatory Context

- Conducting a BC One Call request and retaining a private utility locator to establish and mark locations of underground utilities prior to drilling
- Retaining a drilling contractor to drill 10 boreholes (MW21-01, BH21-02, BH21-03, MW21-04, BH21-05, MW21-06, BH21-07 to BH21-10) boreholes using a track-mounted drill rig equipped with solid and hollow stem augers, to a maximum depth of approximately 6.1 mbgs, with three of the locations (MW21-01, MW21-04 and MW21-06) completed as groundwater monitoring wells with flush-mount casings (see attached Figure 2, Appendix A for locations)
- Collecting representative soil samples and recording soil conditions including soil colour, soil type, relative moisture level, and headspace organic vapour levels
- Submitting select soil samples for laboratory analysis of one or more PCOCs outlined in Table 2 below
- Horizontally surveying the monitoring well and borehole locations
- Preparing this report outlining the field activities, methodology, analytical results, discussion, and conclusions

**Table 2 Summary of APECs, PCOCs, and Sampling Locations**

APEC	Description	Borehole Location	PCOCs
APEC 1 (On and Off-site)	Fill Soil	MW21-01, BH21-02, BH21-03, MW21-04, BH21-05, MW21-06, BH21-07 to BH21-10	LEPH/HEPH, PAH, VOC, Metals, Salinity (Sodium and Chloride)

Stantec understands that this report is required to support soil disposal during the redevelopment of the Site, and Stantec should be contacted if this report is to be used for any other purpose.

## **4.0 REGULATORY CONTEXT**

Soil quality is regulated in BC under the BC Contaminated Sites Regulation (CSR) (BC CSR 2021). The BC CSR is the enabling regulation under the Environmental Management Act (EMA) that outlines procedures for the investigation and reporting of contaminated sites and includes numerical standards for soil quality for specific land and water uses.

The applicable soil standards are discussed below.

### **4.1 SOIL STANDARDS**

The BC CSR Schedule 3.1 standards for Low-Density Residential Land use ( $RL_{LD}$ ) were applied to the Site based on the current and historical land use, per BC CSR Procedure 8: *Definitions and Acronyms for Contaminated Sites* (BC ENV, 2017). To evaluate soil quality for relocation, the BC CSR standards for agricultural (AL), residential high density ( $RL_{HD}$ ), commercial (CL) and industrial (IL) land uses were also applied.

Generic standards are intended to protect human health at any site without consideration of site-specific factors other than land use, whereas matrix numerical standards are applied according to land use and site-specific factors. As per subsection 12 (8) of the CSR, mandatory factors include intake of contaminated soil, and toxicity to soil invertebrates and plants. Additional site-specific factors that apply at the Site are groundwater flow to surface water used by aquatic life (freshwater) and groundwater used for drinking water.



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### Methods

BC ENV *Protocol 4: Establishing Background Concentrations in Soil* (BC ENV, 2019) establishes the background concentrations for a variety of parameters. Samples with a reported concentration above generic CSR standards, but below Protocol 4 standards for the region in which the Site is located, are not considered to be in exceedance of the applicable provincial standards.

## **5.0 METHODS**

### **5.1 UTILITY LOCATES**

Prior to mobilization to the Site, Stantec completed a BC One Call and DigShaw desktop underground utility survey. On-Site utility locates were completed by Quadra Locating, using ground penetrating radar and electromagnetic induction. Boreholes were not advanced within 2 m of a marked underground utility.

### **5.2 SOIL SAMPLING**

Drilling services were provided by Southland Drilling Co. Ltd. on November 26 and 29, 2021. Ten boreholes (MW21-01, BH21-02 to BH21-03, MW21-04, BH21-05, MW21-06 and BH21-07 to BH21-10) were advanced using a track mounted drill rig equipped with solid and hollow stem augers to a maximum depth of approximately 6.1 mbgs. The locations of the boreholes advanced on the Site are indicated on Figure 2 in Appendix A and the details of the boreholes and monitoring well construction are provided in Appendix B. Additional details about the monitoring wells are provided in the Hydrogeological and Groundwater Quality Assessment report.

Stantec obtained representative soil samples from the solid-stem auger flights. Samples were collected at each borehole, capturing major stratigraphy changes and at the estimated depth of the groundwater table, if observed.

Headspace vapour levels (HSV<sub>L</sub>) were measured with an RKI Eagle II gas detector calibrated by a trained technician using hexane and isobutylene gas. A portion of each sample was placed in a sealed plastic bag and allowed to come to equilibrium over 20 minutes. The bag was punctured with the tip of the RKI Eagle II and the HSV<sub>L</sub> was recorded once the readings stabilized.

Soil samples for the analysis of volatile parameters were collected using Terra Core™ sampling kits and deposited in purge-and-trap vials containing methanol as per EPA SW-846 Sampling Method 5035A: *Closed-System Purge-And-Trap and Extraction for Volatile Organics in Soil and Waste Samples*.

Soil samples were stored in an ice-chilled cooler and submitted under chain-of-custody to the Bureau Veritas (BV) laboratory in Burnaby, BC for analysis of PCOCs.

### **5.3 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)**

The data quality objectives for the investigation were to collect precise, accurate, reproducible, and complete data in the field. This was achieved by following Stantec's standard operating procedures and the BC Field Sampling Manual (BC ENV, 2013), use of blind field duplicates, and adherence to the project's scope of work.

During the Investigation, sampling work was conducted in accordance with BC ENV *Technical Guidance 1: Site Characterization and Confirmation Testing* (BC ENV, 2009), the BC Field Sampling Manual (BC ENV, 2013), and



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### **Observations**

Stantec's standard field procedures. Field equipment was visually assessed and cleaned before use in monitoring and sampling activities. A fresh pair of nitrile gloves was used for the collection of each sample, and replaced prior to sample collection, to reduce the risk of cross-contamination between samples. Samples were collected in laboratory-supplied clean jars and bottles as appropriate for the intended analysis.

After field collection, samples were placed into an ice-chilled cooler, sealed, and were delivered to the BV laboratory in Burnaby, BC for analysis within the recommended hold time. All samples were delivered with a completed chain-of-custody form.

BV is a Canadian Association for Laboratory Accreditation (CALA) accredited laboratory that uses BC ENV recognized methods to conduct laboratory analyses. As conveyed by the laboratory, method blanks, control standards samples, certified reference material (CRM) standards, method spikes, replicates, duplicates and instrument blanks are routinely analyzed as part of their QA/QC programs.

Blind field duplicates were also submitted and analyzed to measure the precision of the field sampling and laboratory analysis.

## **6.0 OBSERVATIONS**

Field observations documented from the field program are presented and discussed in the following sub sections.

### **6.1 DRILLING AND SOIL STRATIGRAPHY**

Drilling activities occurred on November 26 and 29, 2021. Detailed information of soil stratigraphy and depth for each drilled borehole location is provided in the borehole logs presented in Appendix B.

During borehole drilling, a layer of fill consisting of sand and gravel was observed from the surface (at BH21-02, BH20-03, BH21-05 and MW21-06) or below the topsoil (at MW21-01) to a maximum observed depth of 0.5 mbgs at BH21-02. Underlying this layer was a layer of either sand (observed at BH21-05 and BH21-10) or sandy silt/silty sand (observed at MW21-01, BH21-02, BH21-03, MW21-04, MW21-06 and BH21-07 to BH21-09). The silty sand/sandy silt layer extended to an observed depth of 0.2 to 1.6 mbgs. The sand layer extended to an observed depth of 1.5 to 6.1 mbgs. A clay layer was observed to underly the sand layer at MW21-04 from an observed depth from 6.0 to 6.1 mbgs.

Staining or other indications of the presence of petroleum hydrocarbon contamination was not observed in the boreholes during drilling and soil sampling. HSVL in the soil samples collected during drilling were measured during sample collection. Combustible HSVL ranged between less than the detection limit of the instrument (LTDL) and 610 ppm in the sample collected at a depth of approximately 3.6 mbgs at borehole BH21-09. Volatile organic HSVL ranged between LTDL in several samples and 140 ppm in the sample collected at a depth of approximately 4.2 mbgs in borehole MW21-01. HSVL concentrations are provided on the borehole logs in Appendix B.



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Results

## **7.0 RESULTS**

### **7.1 SOIL ANALYTICAL RESULTS**

Thirty soil samples (including two blind field duplicates) were submitted for laboratory analysis of the identified PCOCs. The soil samples with reported concentrations exceeding the applicable BC CSR standards are summarized in Table 3.

Concentrations reported to be greater than the standards protective of groundwater flow to surface water used by aquatic life (freshwater) and groundwater used for drinking water, but below the background concentration, were not considered exceedances to the standards and, therefore, are not included in the table below.

**Table 3 Summary of Reported Soil Standard Exceedances**

Location and Sample ID	Depth of Sample (mbgs)	Identified Contaminant and Standard Exceeded
BH21-08	0.3 - 0.61	<b>Chloride</b> – AL, RLLD, RLHD, CL and IL
BH21-08	0.91 – 1.22	<b>Chloride</b> - AL, RLLD, RLHD, CL and IL
BH21-09	3.66 – 3.96	<b>Chloride</b> - AL, RLLD, RLHD, CL and IL

The concentration of chloride reported by the saturated paste method exceeds the applied land use standards when groundwater used for drinking water matrix.

The reported concentrations of other analyzed parameters (BTEX, VPH, MTBE, VOCs, LEPH/, HEPH, PAHs, and remaining metals) in analyzed soil samples are less than the applicable BC CSR standards.

The soil analytical results from this investigation, compared to the applicable BC CSR standards, are presented in Table B1 in Appendix C. A summary of the soil analytical results are provided on Figure 2 in Appendix A. Laboratory analytical certificates for this Soil Assessment are provided in Appendix D.

## **7.2 QA/QC SUMMARY**

### **7.2.1 Laboratory QA/QC**

Appropriate laboratory methods were used by the laboratory and the recommended sample holding times were met with the exception of those noted below. Laboratory quality assurance samples such as matrix spikes, matrix spike duplicates, spiked blanks and method blanks were collected and analyzed according to the laboratory method.

Except for the calcium, potassium, sodium and zirconium spikes at BH21-07 SA02, Calcium, potassium, sodium and zirconium are not regulated in the CSR, therefore these spike issues did not impact the conclusions of this report. BV reported a spiked blank recovery for chloromethane was outside of the QC limits. As the reported concentration of chloromethane were less than the laboratory RDL, it is unlikely this spike blank recovery QC exceedance impacted the conclusions of this report. The RPD for barium was outside the QC limits. Given the highest concentration of barium was less than half of the most conservative standard, it is unlikely this RPD QC issue impacted the conclusions of this report.



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### Results

With these exceptions, laboratory quality control sample results were within method acceptance limits.

Stantec has reviewed the set of quality assurance data for the subject batch and the analytical results. BV noted samples MW21-04 SA01 and MW21-04 SA07 were analyzed past the hold time for hexavalent chromium, which increases the uncertainty of the results. Also, samples BH21-08 SA04 and BH21-9 SA04 were analyzed past the hold time for PAHs and EPH, respectively, which increases the uncertainty of the results. However, this does not necessarily mean the results are compromised. Given that the concentrations of PAHs and hexavalent chromium were less than the laboratory RDL, it is unlikely that the increased uncertainty has impacted the conclusions of this report.

Based on this, Stantec has concluded that data quality is adequate for the purposes of this assessment.

### **7.2.2 Field Duplicates and Relative Percent Difference (RPD)**

A blind field duplicate sample is a split of a homogenized soil, sediment, groundwater, or surface water sample that is prepared and analyzed following the same procedure as the original sample. The Relative Percent Different (RPD) is calculated for the results of the pair of samples. The RPD for two data points is equal to the difference divided by the mean multiplied by 100 percent, as shown below. The RPD is used to evaluate the precision of the laboratory analysis.

$$\left( \frac{|X_i - X_{ii}|}{\bar{X}} \right) \times 100 \%$$

#### **NOTES:**

- $X_i$  Concentration in Original Sample  
 $X_{ii}$  Concentration in Duplicate Sample  
 $\bar{X}$  Mean of Sample Concentrations

Throughout the investigation, blind field duplicates for soil were collected during sampling events as part of Stantec's field QA/QC protocols. These blind field duplicates were collected at the same location, at the same time, by the same person utilizing the same equipment during field activities. The BC ENV suggests that blind field duplicates should be collected at a rate of approximately 10% of the total number of samples collected, and Table 4 below summarizes the percent of blind field duplicates obtained for soil.

**Table 4 Sample and Blind Field Duplicate Summary**

Sampled Media	Number of Samples	Number of Blind Field Duplicates	Total Samples Collected	Percentage of Blind Field Duplicates
Soil	28	2	30	6.7%

Once RPD values were calculated for analytical results of original and field duplicate samples, RPD values were compared to recommended BC ENV RPD targets, categorized by analytical parameter. These RPD targets are presented in Table 5 below and were obtained from Q.#36 of the Q&A section (Category: Standards, Sub-Category: General) on the BC ENV Land Remediation website. The BC ENV recommends that the RPD for duplicate field



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### Conclusions and Recommendations

samples not exceed 1.5 times the acceptable lab RPD for the same compound. The lab RPDs can be found in the BC Environmental Laboratory Manual<sup>1</sup>.

**Table 5 Recommended RPD Targets**

Parameter Category	Recommended RPD
<b>Organics in Soil</b>	
Polycyclic Aromatic Hydrocarbons (PAH)	75%
Volatile organics (including F1, BTEX and VH)	60%
F2-F4 (Similar to Extractable Petroleum Hydrocarbons (EPH))	60%
Most Other Typical Organic Parameters	60%
<b>Others</b>	
High variability metals in soil: Ag, Al, Ba, Hg, K, Mo, Na, Pb, Sn, Sr, Ti	60%
Other metals in soil and sediment	45%
General Inorganics in Soil and Sediment	45%

During field sampling activities, two field soil duplicate samples were collected and analyzed. The calculated RPDs were within the acceptance criteria for RPD values recommended by BC ENV.

Stantec's review of field and laboratory data indicates that the analytical data produced by this investigation are representative and meet the objectives of the project's scope of work.

## **8.0 CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of this Soil Assessment, and in consideration of the applicable BC CSR standards, Stantec provides the following conclusions for the Site:

- The reported concentration of chloride ion at BH21-08 SA01, BH21-08 SA02 and BH21-09 SA04 are greater than the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards.
- The reported concentrations of the remaining metals and inorganic parameters in analyzed soil samples are below the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards.
- Reported concentrations LEPH, HEPH, PAHs, BTEX and VPH in analyzed soil samples are below the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards.

Samples analyzed in the fill layer did not have concentrations of PCOCs which exceeded the BC CSR AL, RL<sub>HD</sub>, RL<sub>LD</sub>, CL, and IL standards. It is Stantec's opinion that the chloride exceedances are likely due to the application of road salt during the winter months as these exceedances were not observed in the fill layer.

Further delineation and characterization (e.g., soil sampling from test pits) of the identified chloride-contaminated soil is recommended prior to or during the preparation of the Site for excavation to determine the volume of contaminated soils requiring disposal. Chloride contaminated soil should be disposed of at an appropriately permitted facility. The

<sup>1</sup> BC ENV, 2020. British Columbia Environmental Laboratory Manual, 2020 Edition.



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### Limitations

soil whose quality meets the AL standards may be disposed of at any site permitted to accept soil which meets AL standards.

## **9.0 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.



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### Closure

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.

This report was prepared by Stewart McBride, P.Ag., and reviewed by Matthew Redmond, P.Eng.

## **10.0 CLOSURE**

We trust the information herein is sufficient for your needs at this time. Should you have any questions or concerns, please do not hesitate to contact the undersigned.

Respectfully submitted,

**Stantec Consulting Ltd.**

Reviewed by:

---

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Stantec Permit #1002862

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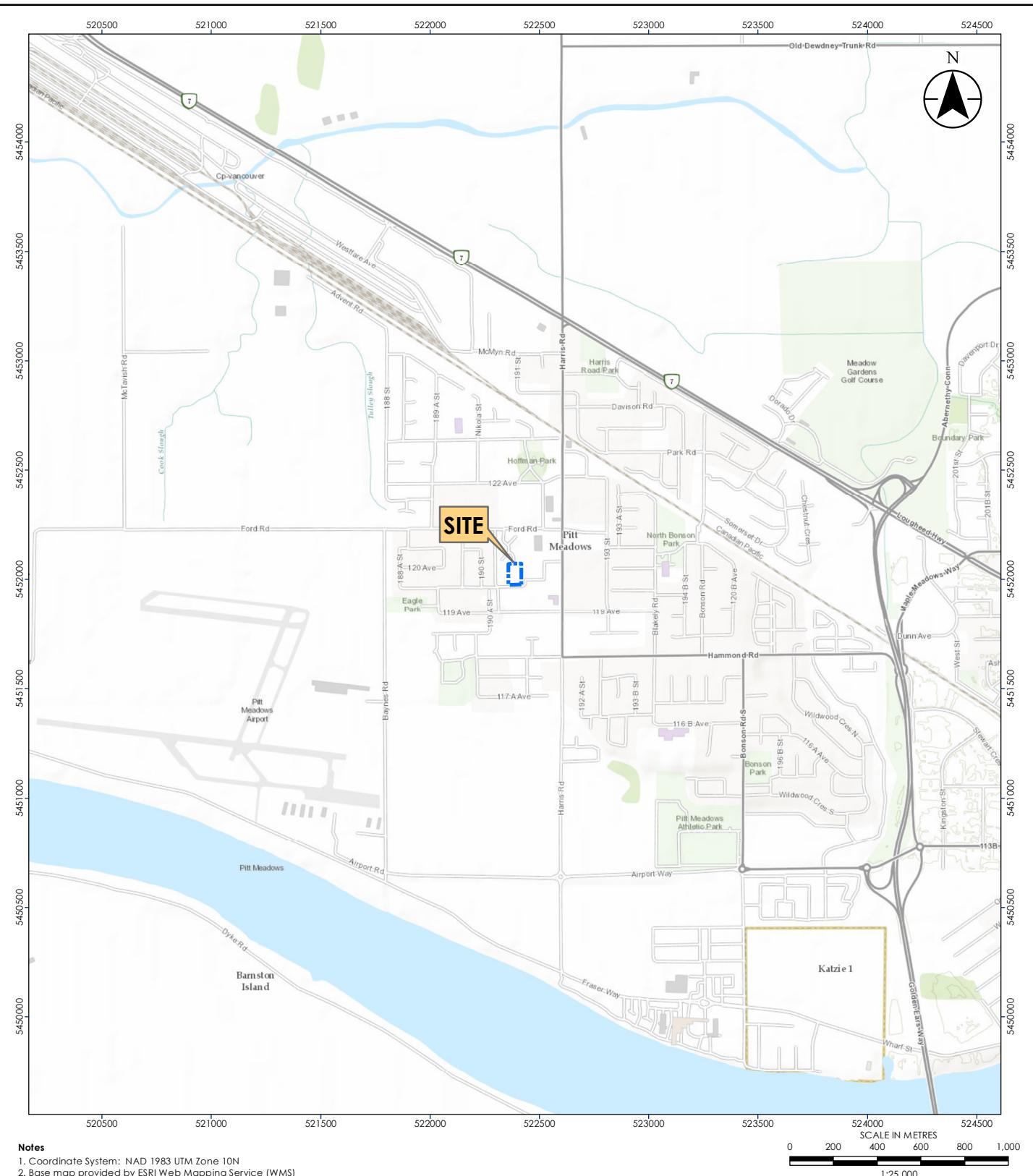
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## **APPENDIX A SITE PLANS**

## Appendix A SITE PLANS





Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

ORIGINAL SHEET ANSI A

#### Project Information

Project No: 123315738  
 Scale: 1:25,000  
 Date: 2022-JAN-19  
 Drawn by: G. HUYNH  
 Checked by: S. McBRIDE

#### Client / Project

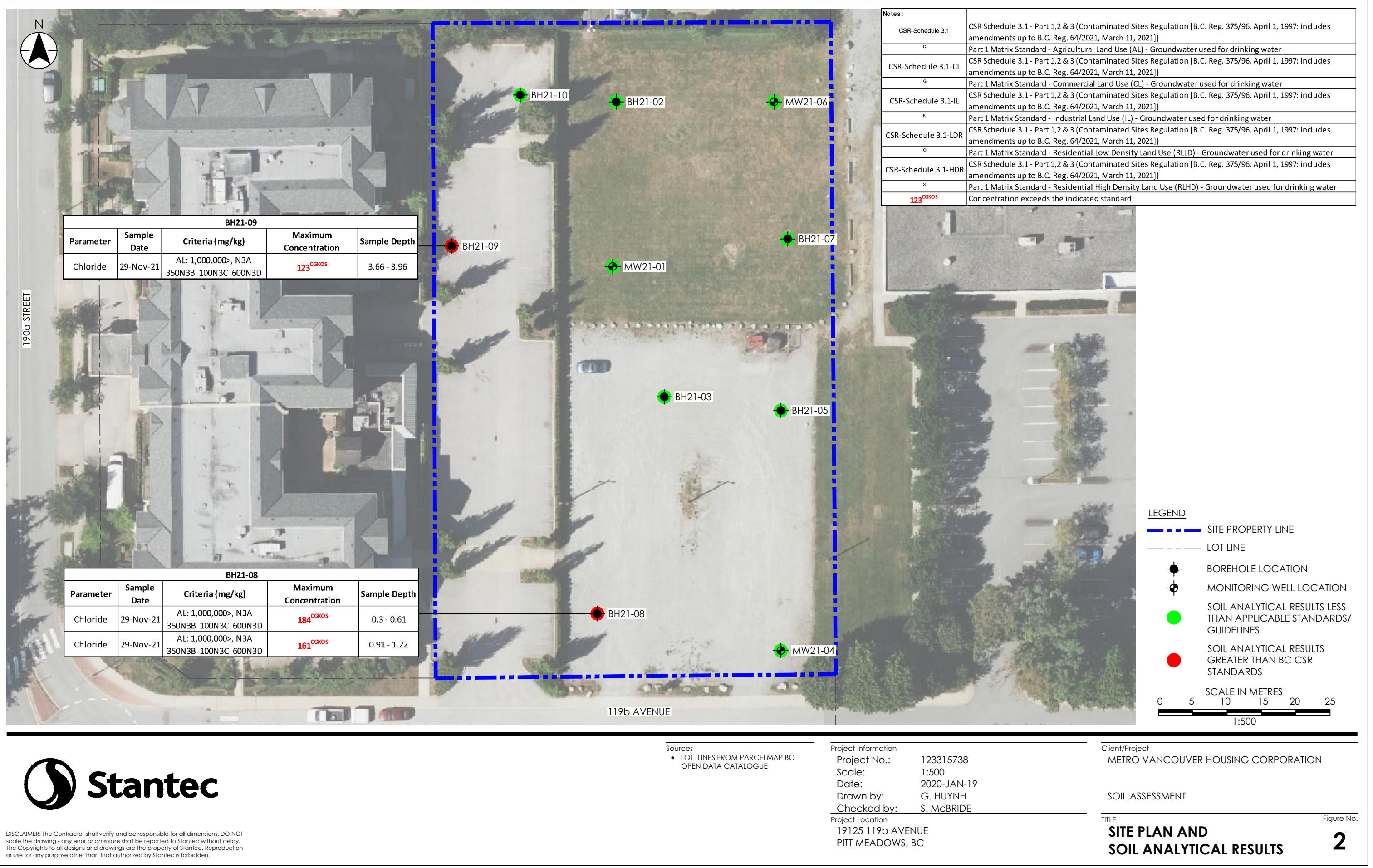
METRO VANCOUVER HOUSING CORPORATION

SOIL ASSESSMENT

Title

Figure No.

**SITE LOCATION PLAN 1**



## **APPENDIX B**

## **BOREHOLE LOGS**

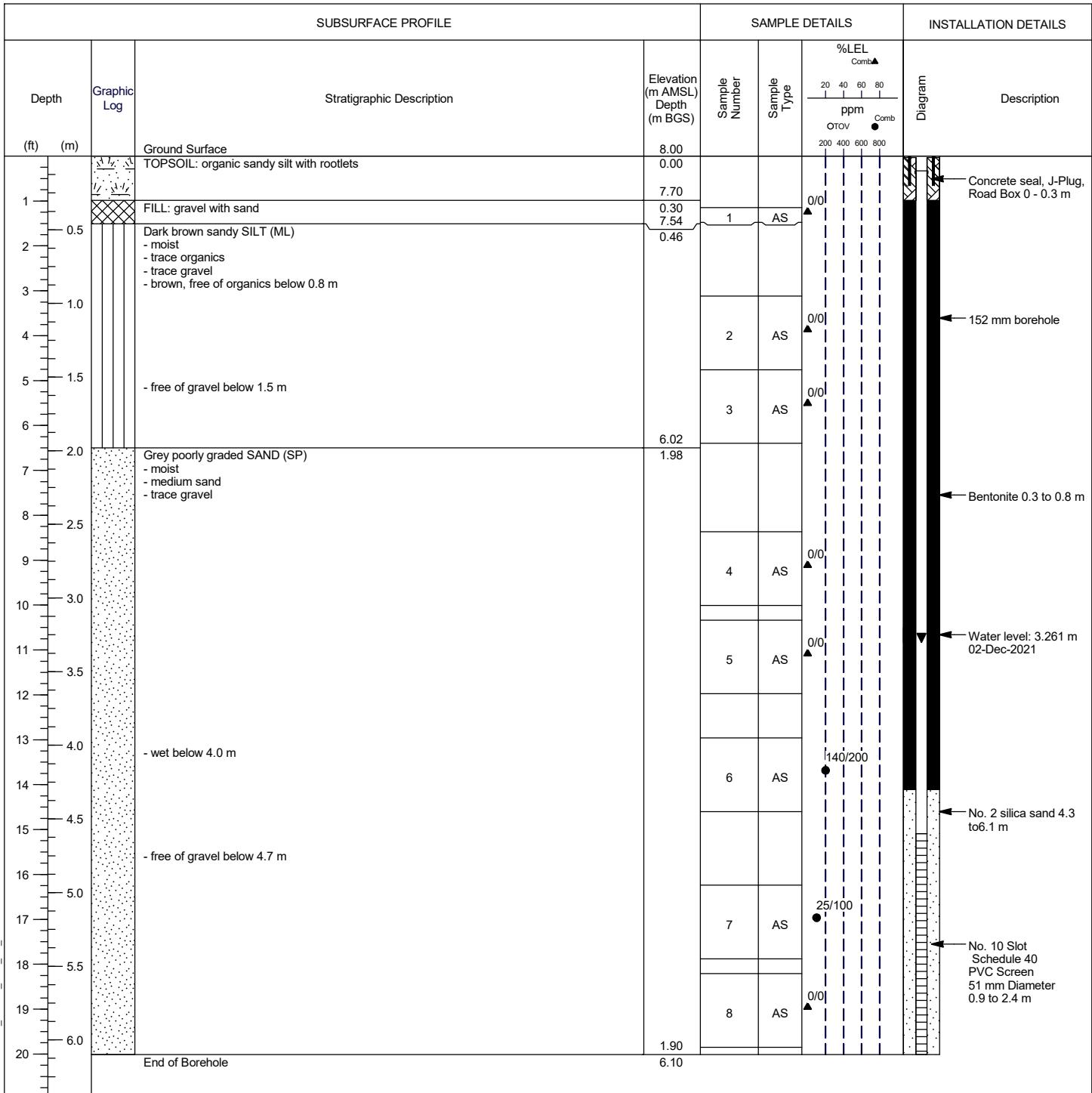
## Appendix B BOREHOLE LOGS



# Monitoring Well: MW21-01

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 8.00 m AMSL  
**Top of casing elevation:** 7.90 m AMSL  
**Easting:** n/a  
**Northing:** n/a



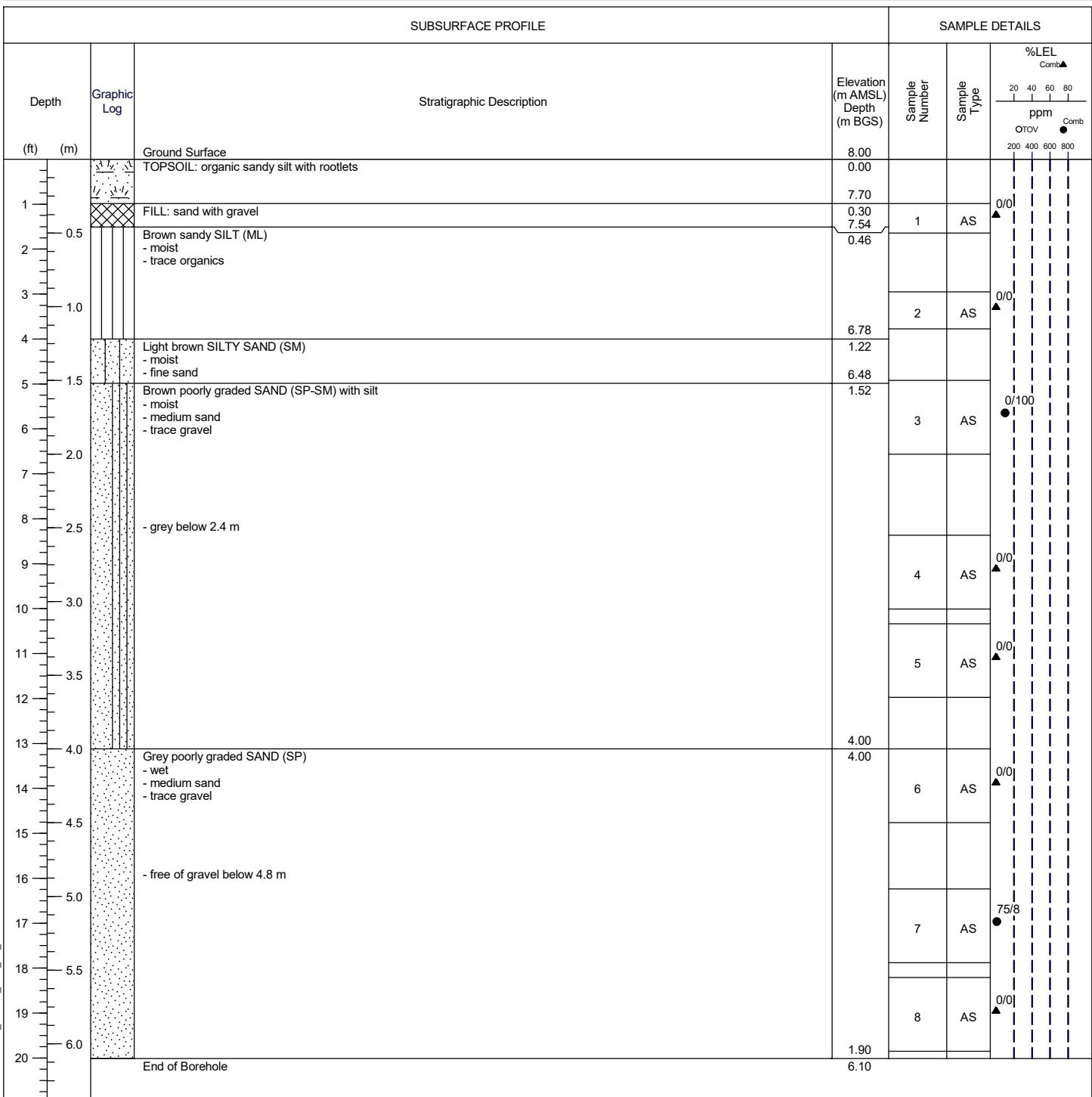
Screen Interval: 4.60 - 6.10 m BGS  
 Sand Pack Interval: 4.30 - 6.10 m BGS  
 Well Seal Interval: 0.30 - 4.30 m BGS

Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available

## Borehole: BH21-02

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 8.00 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a

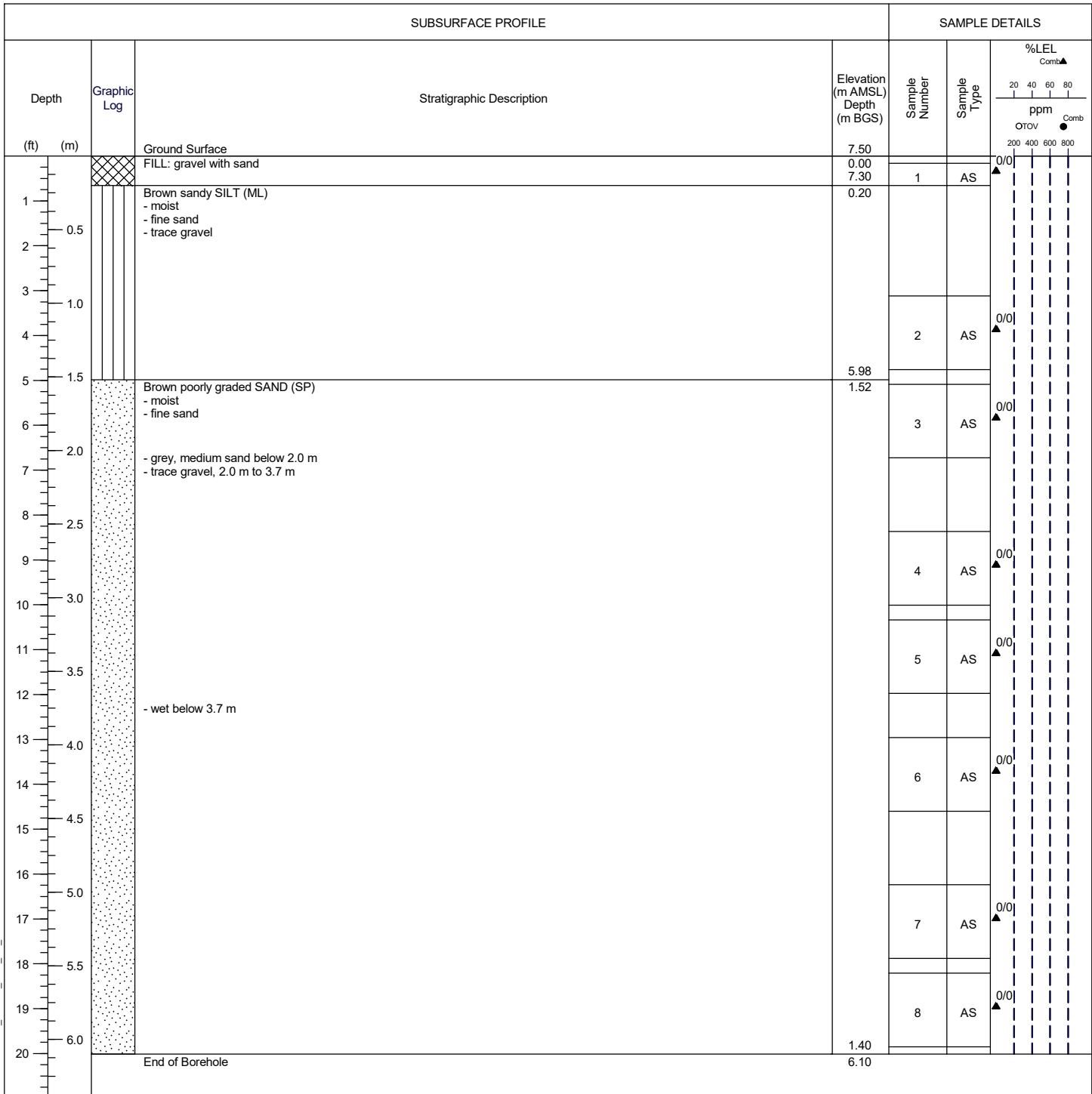


Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available

# Borehole: BH21-03

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a

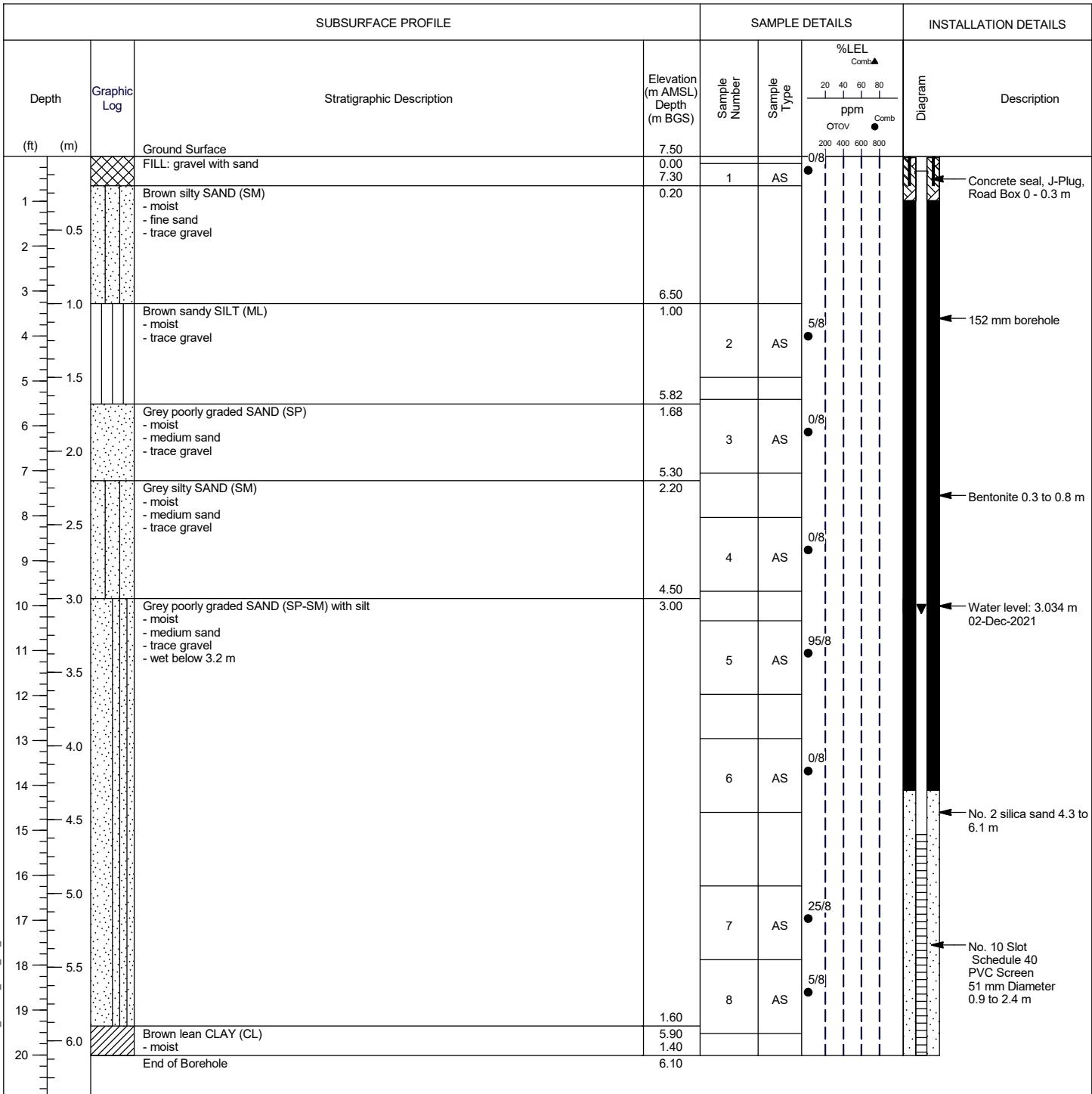


Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available

# Monitoring Well: MW21-04

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** 7.40 m AMSL  
**Easting:** n/a  
**Northing:** n/a



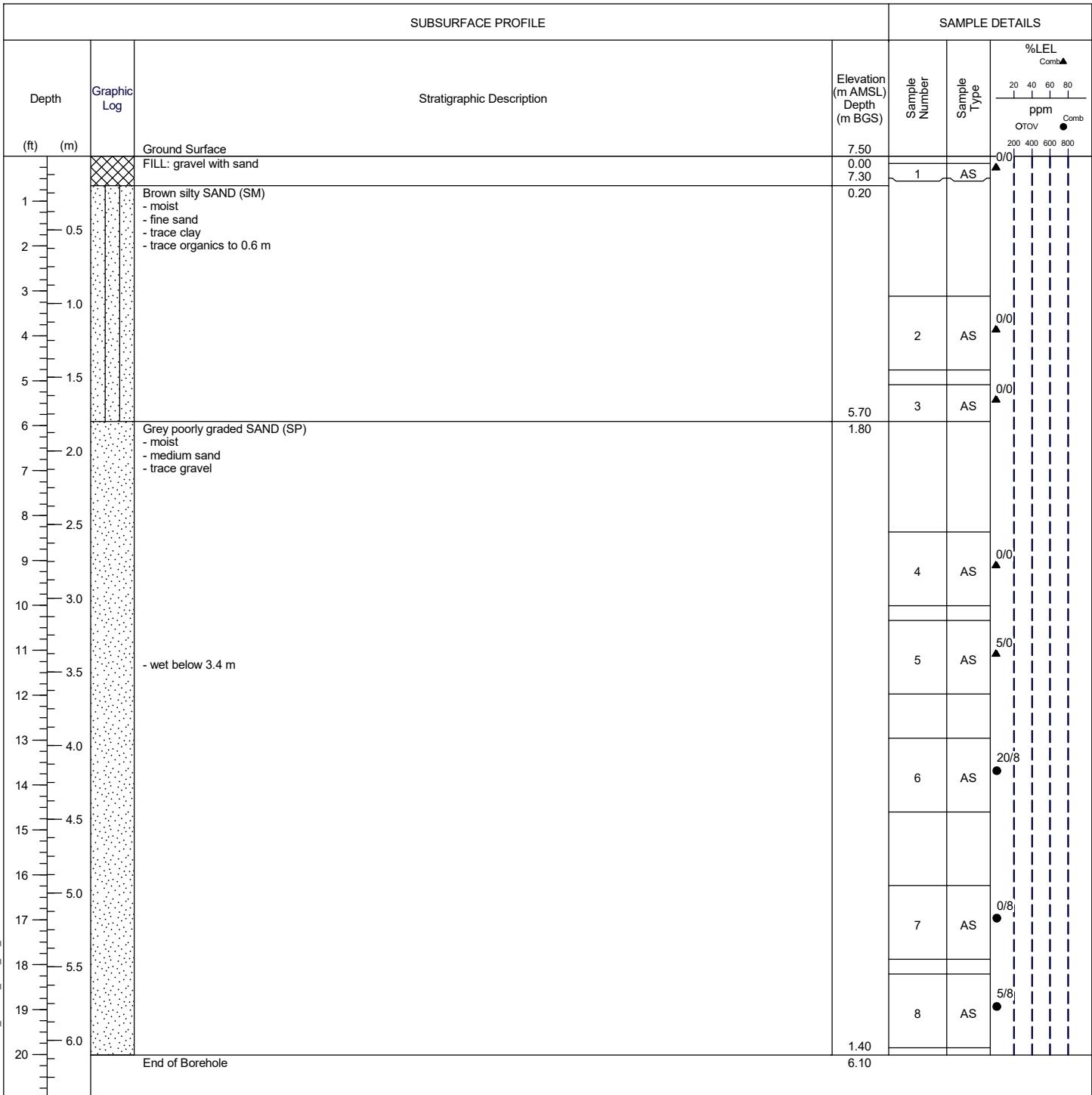
Screen Interval: 4.60 - 6.10 m BGS  
 Sand Pack Interval: 4.30 - 6.10 m BGS  
 Well Seal Interval: 0.30 - 4.30 m BGS

Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available

# Borehole: BH21-05

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a



STANTEC BOREHOLE AND WELL V2 123315738\_220124\_ENV\_BH\_LOGS.GPJ STANTEC - DATA TEMPLATE.GDT 1/28/22 SMCRDDE

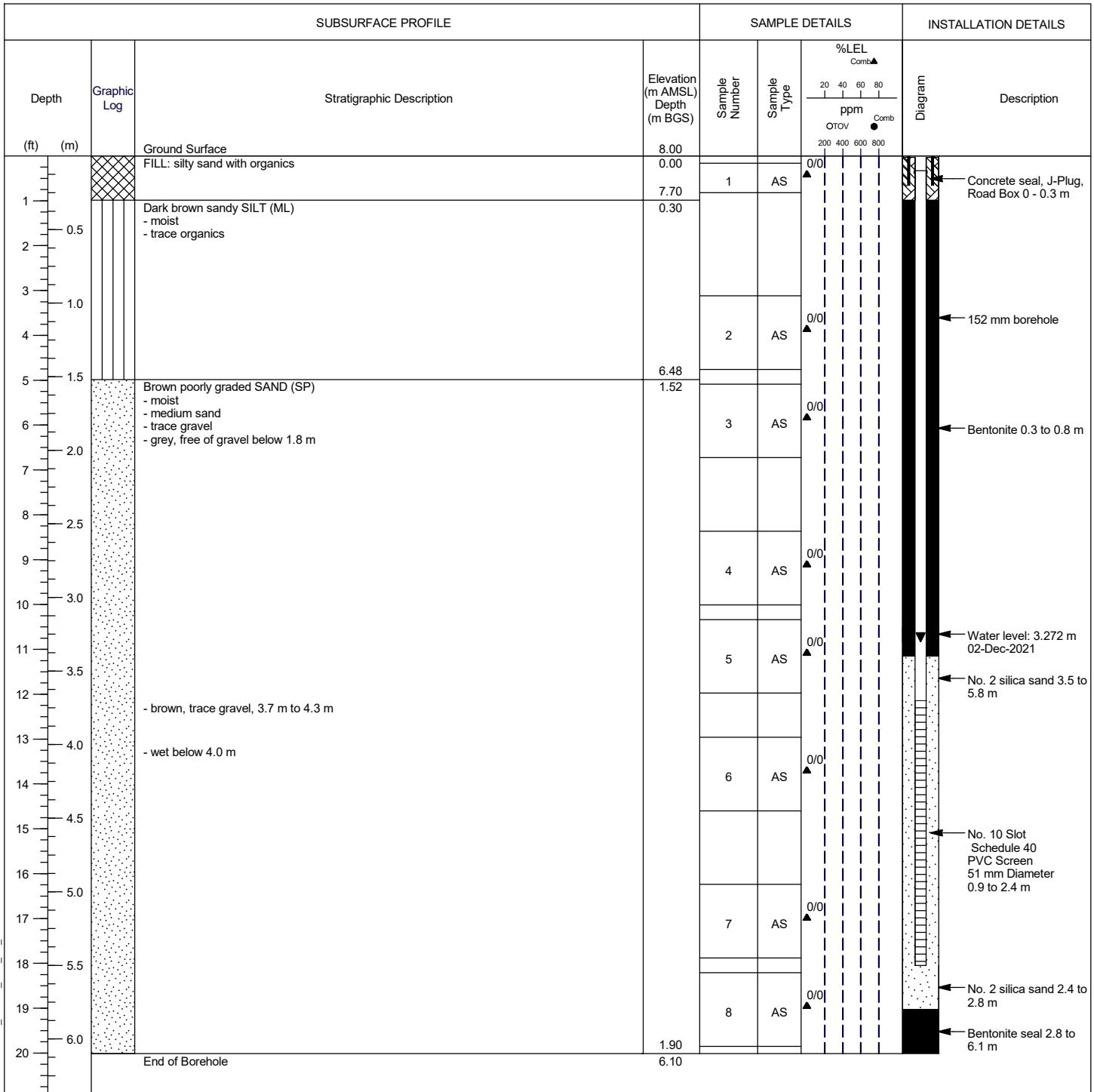
Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available



# Monitoring Well: MW21-06

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Southland Drilling Co. Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 26-Nov-2021  
**Ground surface elevation:** 8.00 m AMSL  
**Top of casing elevation:** 7.90 m AMSL  
**Easting:** n/a  
**Northing:** n/a



Screen Interval: 3.70 - 5.50 m BGS  
 Sand Pack Interval: 3.40 - 5.80 m BGS  
 Well Seal Interval: 0.30 - 3.40 m BGS

Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available



## Borehole: BH21-07

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Coneteck Investigations Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 29-Nov-2021  
**Ground surface elevation:** 8.00 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a

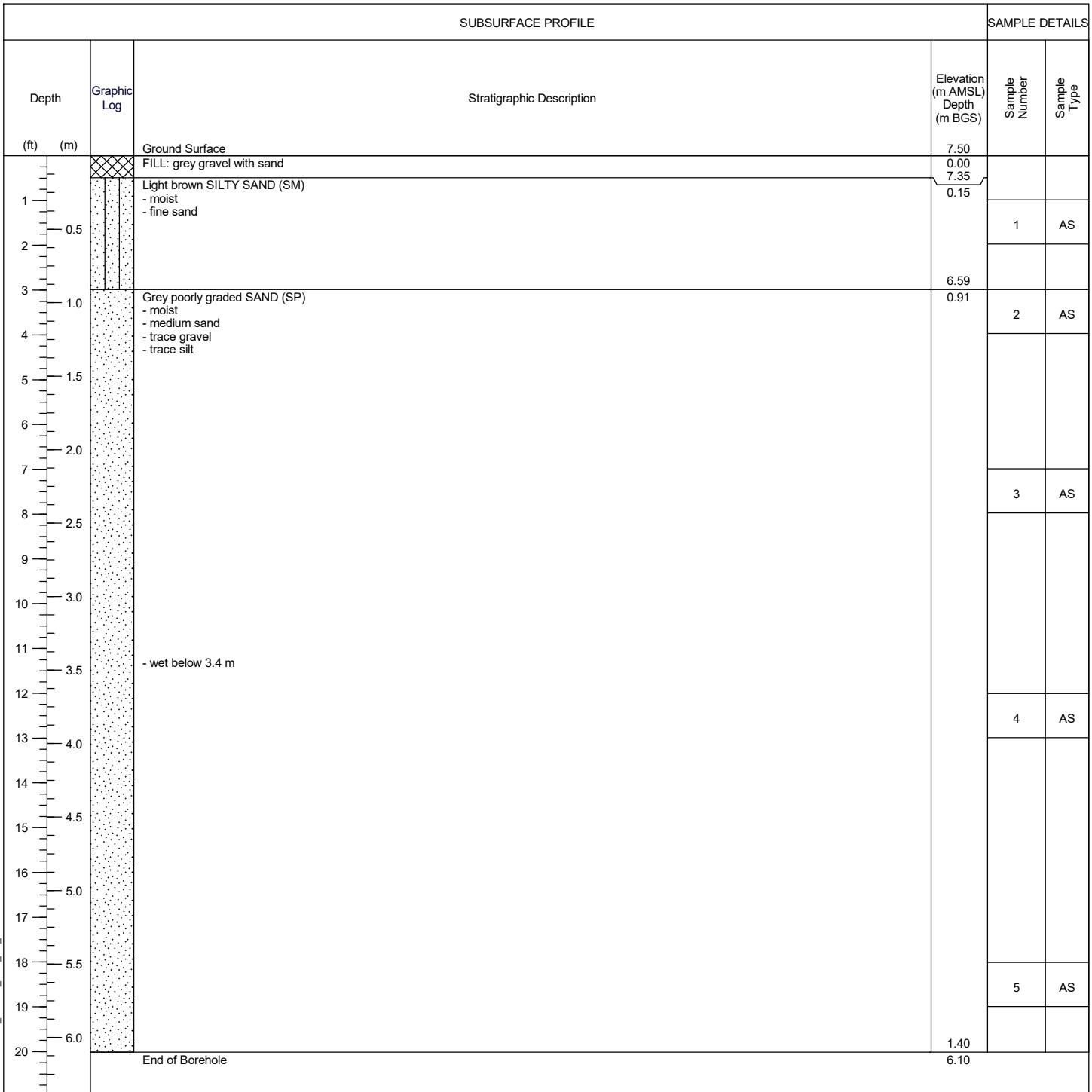
SUBSURFACE PROFILE					SAMPLE DETAILS	
Depth (ft) (m)	Graphic Log	Stratigraphic Description	Elevation (m AMSL) Depth (m BGS)	Sample Number	Sample Type	
		Ground Surface	8.00			
1		FILL: silty sand with gravel	0.00			
0.5			7.70			
2		Dark brown sandy SILT (ML) - moist - trace organics	0.30	1	AS	
3		Brown SILTY SAND (SM) - moist - fine sand	7.40	2	AS	
4			0.60			
5		Grey poorly graded SAND (SP) - moist - medium sand - trace gravel - trace silt	6.48	3	AS	
6			1.52	4	AS	
7				5	AS	
8				6	AS	
9						
10						
11						
12		- free of gravel below 3.7 m				
13		- wet below 4.0 m				
14						
15						
16						
17						
18						
19						
20		End of Borehole	1.90			
			6.10			

Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 n/a - not available

## Borehole: BH21-08

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Coneteck Investigations Ltd.

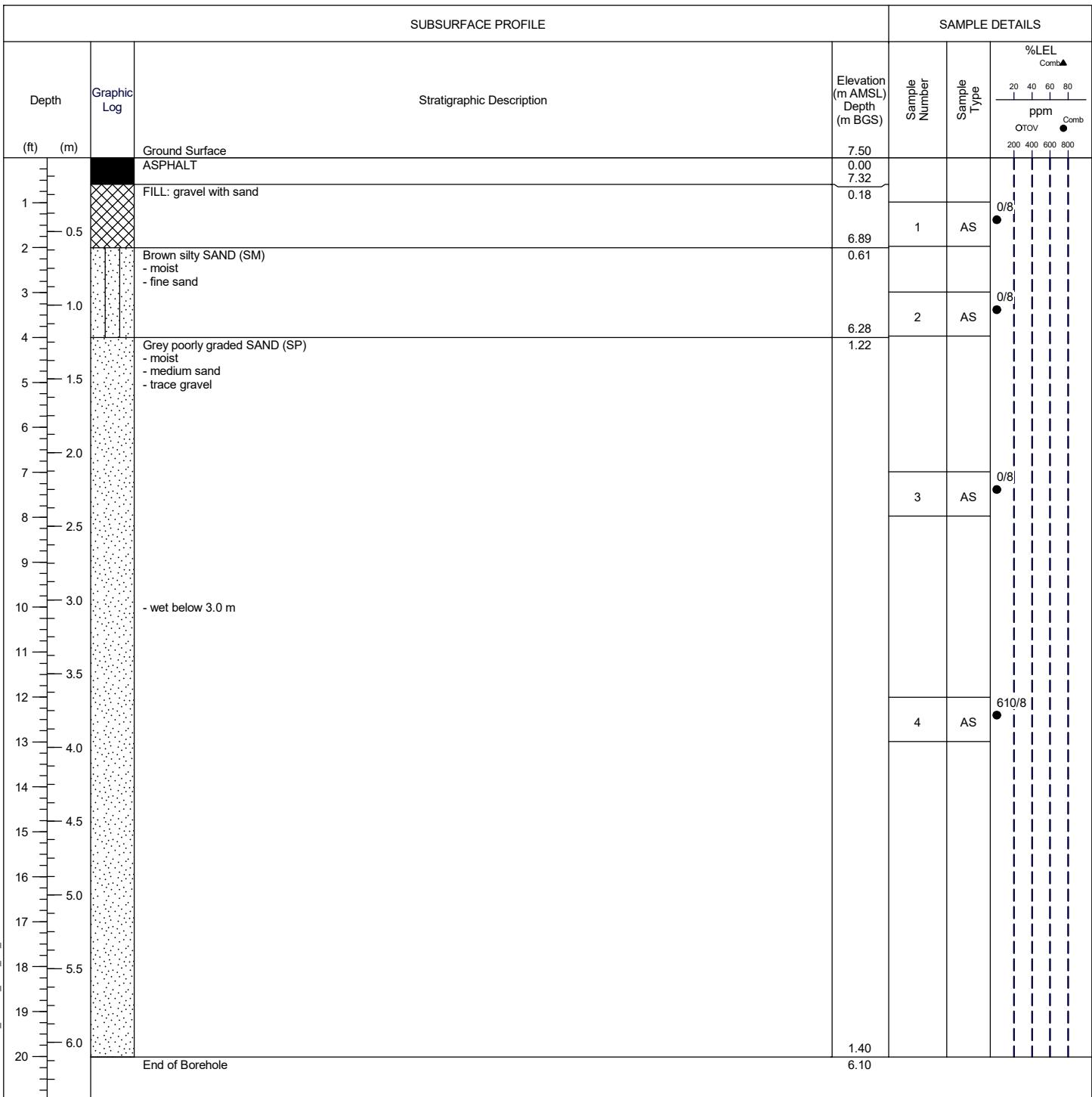
**Method:** Solid Stem Augers  
**Date started/completed:** 29-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a



# Borehole: BH21-09

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Coneteck Investigations Ltd.

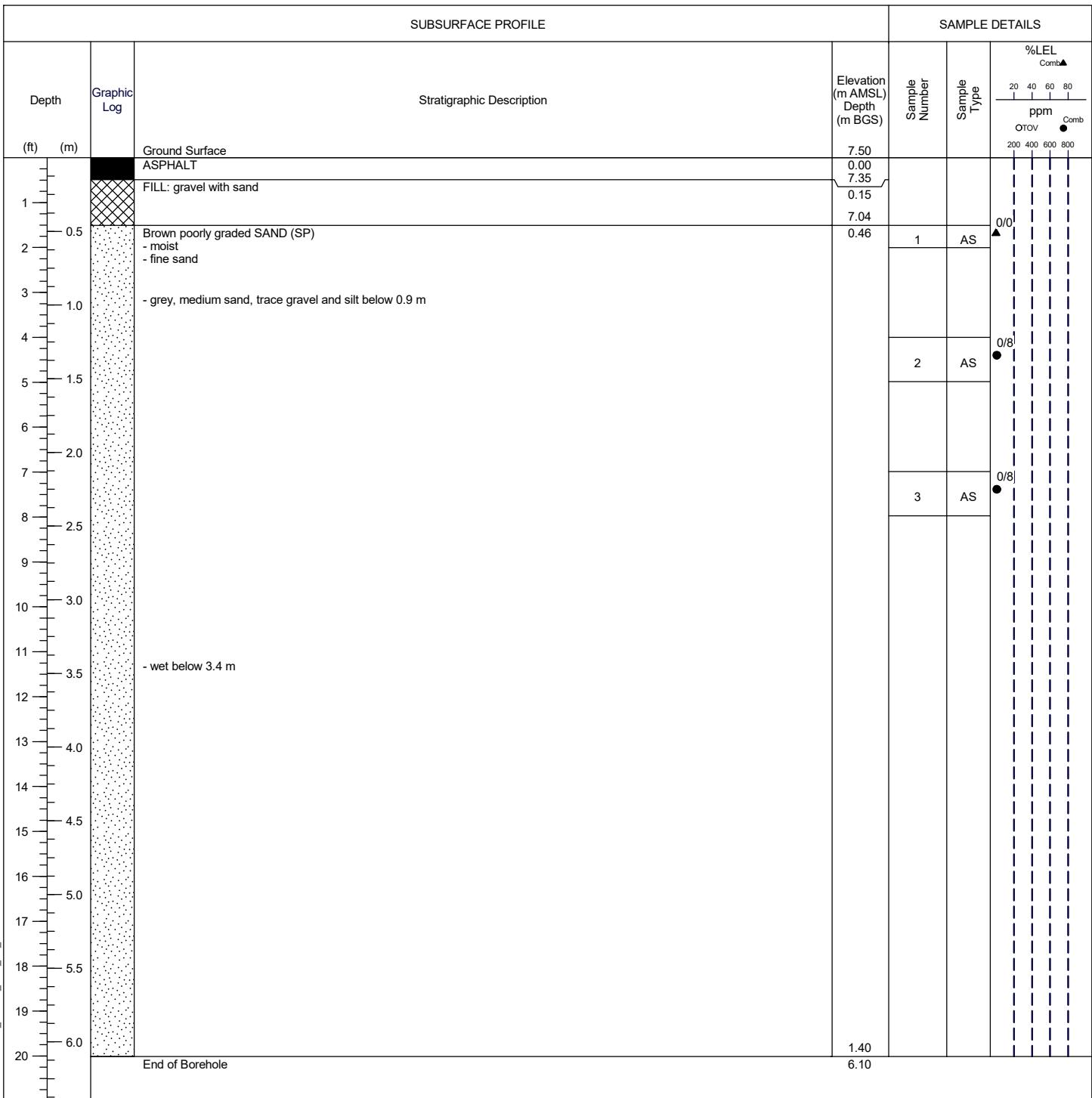
**Method:** Solid Stem Augers  
**Date started/completed:** 29-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a



# Borehole: BH21-10

**Project:** Pitt Meadows Affordable Housing and Childcare  
**Client:** Metro Vancouver Housing Corporation  
**Location:** 19125 119B Avenue, Pitt Meadows  
**Number:** 123315738  
**Field investigator:** SM  
**Contractor:** Coneteck Investigations Ltd.

**Method:** Solid Stem Augers  
**Date started/completed:** 29-Nov-2021  
**Ground surface elevation:** 7.50 m AMSL  
**Top of casing elevation:** n/a m AMSL  
**Easting:** n/a  
**Northing:** n/a



STANTEC BOREHOLE AND WELL V2\_123315738\_220124\_ENV\_BH\_LOGS.GPJ STANTEC - DATA TEMPLATE.GDT 1/28/22 SNCRBRDE

Notes:  
 m AMSL - metres above mean sea level  
 m BGS - metres below ground surface  
 AS - auger sample  
 ppm - parts per million by volume  
 %LEL - percent lower explosive limit  
 n/a - not available



## **APPENDIX C**

# **LABORATORY ANALYTICAL TABLES**

## Appendix C LABORATORY ANALYTICAL TABLES



**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1						26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	
Sample Date		Agricultural	Commercial	Industrial	Residential Low Density Land Use (RLLD)		Residential High Density Land Use (RLHD)		MW21-01 SA01	MW21-01 SA01	DUP21-01	MW21-01 SA05	MW21-01 SA05	MW21-01 SA07	MW21-01 SA07
Sample ID					n/v	n/v	n/v	n/v	0.05 - 0.5 m	0.05 - 0.5 m	0.05 - 0.5 m	3.15 - 3.65 m	3.15 - 3.65 m	4.95 - 5.45 m	4.95 - 5.45 m
Sample Depth									STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV
Sampling Company									C195368 AME006	C195368 AME006	C195368 AME014	C195368 AME010	C195368 AME010	C195368 AME012	C195368 AME012
Laboratory									Lab-Dup	Lab-Dup	Lab-Duplicate	Field Duplicate	RPD (%)	Lab Replicate	Lab Replicate
Laboratory Work Order									0.495	0.495	0.495	0.495	0.495	0.495	0.495
Laboratory Sample ID									STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV
Sample Type									10.000	10.000	10.000	10.000	10.000	10.000	10.000
<b>General Chemistry</b>															
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	34	33	32	6%	12	-	17
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	71.5	-	75.3	nc	37.6	-	36.5
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	n/v	6.47	-	6.4	nc	6.59	-	6.51
<b>Soluble Parameters</b>															
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	13	-	11	nc	12	-	39
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<5.0	-	<5.0	nc	9.8	-	16.1
<b>Calculated Parameters</b>															
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> 350 <sup>B</sup> , N <sub>3</sub> 100 <sup>C</sup> , N <sub>3</sub> 600 <sup>D</sup>	1,000,000 <sup>E</sup> , N <sub>3</sub> 2,500 <sup>F</sup> , N <sub>3</sub> 100 <sup>G</sup> , N <sub>3</sub> 600 <sup>H</sup>	1,000,000 <sup>I</sup> , N <sub>3</sub> 2,500 <sup>J</sup> , N <sub>3</sub> 100 <sup>K</sup> , N <sub>3</sub> 600 <sup>L</sup>	1,000,000 <sup>M</sup> , N <sub>3</sub> 350 <sup>N</sup> , N <sub>3</sub> 100 <sup>O</sup> , N <sub>3</sub> 600 <sup>P</sup>	1,000,000 <sup>Q</sup> , N <sub>3</sub> 2,500 <sup>R</sup> , N <sub>3</sub> 100 <sup>S</sup> , N <sub>3</sub> 600 <sup>T</sup>	9.2	-	8.5	nc	4.6	-	14.1	-	-
Sodium	mg/kg	1,000,000 <sup>AD</sup> , N <sub>9</sub> 200 <sup>B</sup> , N <sub>9</sub> 15,000 <sup>C</sup>	1,000,000 <sup>EH</sup> , N <sub>9</sub> 1,000 <sup>F</sup> , N <sub>9</sub> 15,000 <sup>G</sup>	1,000,000 <sup>I</sup> , N <sub>9</sub> 1,000 <sup>J</sup> , N <sub>9</sub> 15,000 <sup>K</sup>	1,000,000 <sup>MP</sup> , N <sub>9</sub> 200 <sup>N</sup> , N <sub>9</sub> 15,000 <sup>O</sup>	1,000,000 <sup>QI</sup> , N <sub>9</sub> 1,000 <sup>R</sup> , N <sub>9</sub> 15,000 <sup>S</sup>	<3.6	-	<3.8	nc	3.7	-	5.9	-	-
<b>Petroleum Hydrocarbons</b>															
Benzene	mg/kg	150 <sup>A</sup> , N <sub>8</sub> 0.035 <sup>C</sup> , N <sub>8</sub> 2.5 <sup>D</sup>	1,000 <sup>E</sup> , N <sub>8</sub> 0.035 <sup>G</sup> , N <sub>8</sub> 2.5 <sup>H</sup>	6,500 <sup>I</sup> , N <sub>8</sub> 0.035 <sup>K</sup> , N <sub>8</sub> 2.5 <sup>L</sup>	150 <sup>M</sup> , N <sub>8</sub> 0.035 <sup>O</sup> , N <sub>8</sub> 2.5 <sup>P</sup>	350 <sup>Q</sup> , N <sub>8</sub> 0.035 <sup>S</sup> , N <sub>8</sub> 2.5 <sup>T</sup>	<0.0050	<0.0050	<0.0050	nc	<0.0050	-	-	-	-
Toluene	mg/kg	3,500 <sup>A</sup> , N <sub>8</sub> 6.0 <sup>C</sup> , N <sub>8</sub> 0.50 <sup>D</sup>	20,000 <sup>E</sup> , N <sub>8</sub> 6.0 <sup>G</sup> , N <sub>8</sub> 0.50 <sup>H</sup>	550,000 <sup>I</sup> , N <sub>8</sub> 6.0 <sup>K</sup> , N <sub>8</sub> 0.50 <sup>L</sup>	3,500 <sup>M</sup> , N <sub>8</sub> 6.0 <sup>O</sup> , N <sub>8</sub> 0.50 <sup>P</sup>	6,500 <sup>Q</sup> , N <sub>8</sub> 6.0 <sup>R</sup> , N <sub>8</sub> 0.50 <sup>T</sup>	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-
Ethylbenzene	mg/kg	4,000 <sup>A</sup> , N <sub>8</sub> 200 <sup>B</sup> , N <sub>8</sub> 15 <sup>C</sup>	25,000 <sup>E</sup> , N <sub>8</sub> 650 <sup>G</sup> , N <sub>8</sub> 200 <sup>H</sup>	700,000 <sup>I</sup> , N <sub>8</sub> 650 <sup>K</sup> , N <sub>8</sub> 200 <sup>L</sup>	4,000 <sup>M</sup> , N <sub>8</sub> 200 <sup>Q</sup> , N <sub>8</sub> 15 <sup>O</sup>	8,500 <sup>Q</sup> , N <sub>8</sub> 650 <sup>R</sup> , N <sub>8</sub> 200 <sup>T</sup>	<0.10	<0.10	<0.10	nc	<0.10	-	-	-	-
Xylene, m & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.40	<0.40	<0.40	nc	<0.40	-	-
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.40	<0.40	<0.40	nc	<0.40	-	-
Xylenes, Total	mg/kg	8,500 <sup>A</sup> , N <sub>8</sub> 6.5 <sup>C</sup> , N <sub>8</sub> 20 <sup>D</sup>	50,000 <sup>E</sup> , N <sub>8</sub> 6.5 <sup>G</sup> , N <sub>8</sub> 20 <sup>H</sup>	1,000,000 <sup>I</sup> , N <sub>8</sub> 6.5 <sup>K</sup> , N <sub>8</sub> 20 <sup>L</sup>	8,500 <sup>M</sup> , N <sub>8</sub> 6.5 <sup>O</sup> , N <sub>8</sub> 20 <sup>P</sup>	15,000 <sup>Q</sup> , N <sub>8</sub> 6.5 <sup>R</sup> , N <sub>8</sub> 20 <sup>T</sup>	<0.40	<0.40	<0.40	nc	<0.40	-	-	-	-
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	<100	nc	<100	-	-
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	<100	nc	<100	-	-
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	<100	nc	<100	-	-
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	<100	nc	<100	-	-
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<10	<10	<10	nc	<10	-	-
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<10	-	<10	nc	<10	-	-
<b>Metals</b>															
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	27,100	-	27,800	3%	9,110	10,400	10,700
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	0.25	-	0.27	nc	0.12	0.15	0.15
Arsenic	mg/kg	20 <sup>A</sup> , N <sub>8</sub> 25 <sup>B</sup> , N <sub>8</sub> 10 <sup>C</sup>	150 <sup>E</sup> , N <sub>8</sub> 40 <sup>G</sup> , N <sub>8</sub> 10 <sup>H</sup>	400 <sup>I</sup> , N <sub>8</sub> 40 <sup>K</sup> , N <sub>8</sub> 10 <sup>L</sup>	20 <sup>M</sup> , N <sub>8</sub> 25 <sup>N</sup> , N <sub>8</sub> 10 <sup>P</sup>	40 <sup>Q</sup> , N <sub>8</sub> 10 <sup>R</sup> , N <sub>8</sub> 10 <sup>T</sup>	5.01	-	5.05	1%	1.65	1.72	1.86	-	
Barium	mg/kg	8,500 <sup>A</sup> , N <sub>8</sub> 700 <sup>B</sup> , N <sub>8</sub> 350 <sup>C</sup> , N <sub>8</sub> 3,500 <sup>D</sup>	50,000 <sup>E</sup> , N <sub>8</sub> 1,500 <sup>G</sup> , N <sub>8</sub> 350 <sup>H</sup> , N <sub>8</sub> 3,500 <sup>I</sup>	1,000,000 <sup>J</sup> , N <sub>8</sub> 1,500 <sup>K</sup> , N <sub>8</sub> 350 <sup>L</sup> , N <sub>8</sub> 3,500 <sup>M</sup>	8,500 <sup>M</sup> , N <sub>8</sub> 700 <sup>N</sup> , N <sub>8</sub> 350 <sup>O</sup> , N <sub>8</sub> 3,500 <sup>P</sup>	15,000 <sup>Q</sup> , N <sub>8</sub> 1,500 <sup>R</sup> , N <sub>8</sub> 350 <sup>S</sup> , N <sub>8</sub> 3,500 <sup>T</sup>	67.8	-	76.8	12%	35.9	32.9	40.2	-	
Beryllium	mg/kg	85 <sup>A</sup> , N <sub>8</sub> 150 <sup>B</sup> , N <sub>8</sub> 1.0-2,500 <sup>C</sup> , N <sub>8</sub> 1.0-500 <sup>D</sup>	500 <sup>E</sup> , N <sub>8</sub> 350 <sup>G</sup> , N <sub>8</sub> 1.0-2,500 <sup>H</sup> , N <sub>8</sub> 1.0-500 <sup>I</sup>	15,000 <sup>J</sup> , N <sub>8</sub> 1.0-2,500 <sup>K</sup> , N <sub>8</sub> 1.0-500 <sup>L</sup>	85 <sup>M</sup> , N <sub>8</sub> 150 <sup>N</sup> , N <sub>8</sub> 1.0-2,500 <sup>P</sup> , N <sub>8</sub> 1.0-500 <sup>R</sup>	150 <sup>Q</sup> , N <sub>8</sub> 150 <sup>R</sup> , N <sub>8</sub> 1.0-2,500 <sup>S</sup> , N <sub>8</sub> 1.0-500 <sup>T</sup>	0.40	-	0.40	nc	<0.20	<0.20	<0.20	-	
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	-	<0.10	nc	<0.10	<0.10	<0.10
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	2.7	-	3				

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	Agricultural	Commercial	CSR-Schedule 3.1 Industrial	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)	26-Nov-21 MW21-01 SA01	26-Nov-21 MW21-01 SA01	26-Nov-21 DUP21-01	26-Nov-21 MW21-01 SA05	26-Nov-21 MW21-01 SA05	26-Nov-21 Lab-Dup STANTEC BV C195368 AME006	26-Nov-21 Lab-Dup STANTEC BV C195368 AME006	26-Nov-21 Lab-Dup STANTEC BV C195368 AME010	26-Nov-21 Lab-Dup STANTEC BV C195368 AME012	
<b>Polycyclic Aromatic Hydrocarbons</b>																
Acenaphthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	<0.0050	nc	<0.0050	-	-	-	-	-
Acenaphthylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	<0.0050	nc	<0.0050	-	-	-	-	-
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>	75,000 <sup>E</sup> 30 <sup>F</sup>	1,000,000 <sup>I</sup> 30 <sup>J</sup>	10,000 <sup>M</sup> 2.5 <sup>N</sup>	25,000 <sup>O</sup> 30 <sup>R</sup>	<0.0040	-	<0.0040	nc	<0.0040	-	-	-	-	-
Benzo(a)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>	30 <sup>E</sup> 70 <sup>F</sup>	50 <sup>I</sup> 70 <sup>J</sup>	5.0 <sup>H</sup> 20 <sup>N</sup>	10 <sup>O</sup> 70 <sup>R</sup>	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Benzo(b)pyridine (Quinoline)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
Benzo(b,j)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Chrysene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>	10,000 <sup>E</sup> 200 <sup>F</sup>	300,000 <sup>I</sup> 200 <sup>J</sup>	1,500 <sup>M</sup> 50 <sup>N</sup>	3,500 <sup>O</sup> 200 <sup>R</sup>	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Fluorene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
High Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Low Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
Methylnaphthalene, 1-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>	5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>	150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>	850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>	1,500 <sup>Q</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>	<0.010	-	<0.010	nc	<0.010	-	-	-	-	-
Phenanthrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.010	-	<0.010	nc	<0.010	-	-	-	-	-
Pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Total PAH	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	nc	<0.050	-	-	-	-	-
<b>Volatile Organic Compounds</b>																
Bromobenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.20	<0.20	<0.20	nc	<0.20	-	-	-	-	-
Bromodichloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-
Bromoform (Tribromomethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.30	<0.30	<0.30	nc	<0.30	-	-	-	-	-
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Chloroethane (Ethyl Chloride)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	<0.10	nc	<0.10	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Chloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-
Dibromochloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	<0.050	<0.050	nc	<0.050	-	-	-	-	-
Dichlorobenzene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichlorobenzene, 1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichlorobenzene, 1,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichloroethane, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.025	<0.025	<0.025	nc	<0.025	-	-	-	-	-
Dichloroethane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichloroethene, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.025	<0.025	<0.025	nc	<0.025	-	-	-	-	-
Dichloroethene, cis-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.030	<0.030	<0.030	nc	<0.030	-	-	-	-	-
Dichloroethene, trans-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.030	<0.030	<0.030	nc	<0.030	-	-	-	-	-
Dichloropropene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichloropropene, 1,3- (sum of isomers cis + trans)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	nc	<0.020	-	-	-	-	-
Dichloropropene, cis-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Dichloropropene, trans-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020	-	-	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	<0.020	<0.020	nc	<0.020</td					

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1						BH21-02	BH21-03	BH21-04	BH21-05	BH21-06	BH21-07		
Sample Date		Agricultural	Commercial	Industrial	Residential Low Density Land Use (RLLD)		Residential High Density Land Use (RHLD)		26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	
Sample ID					n/v	n/v	n/v	n/v	BH21-02 SA01	BH21-02 SA02	BH21-02 SA05	BH21-03 SA01	BH21-03 SA01	BH21-03 SA05	
Sample Depth									0.05 - 0.5 m	0.95 - 1.45 m	3.15 - 3.65 m	0.05 - 0.2 m	1.55 - 2.05 m	3.15 - 3.65 m	
Sampling Company									STANTEC BV						
Laboratory									C195368 AME017	C195368 AME018	C195368 AME021	C195368 AME025	C195368 AME029	C195368 AME031	
Laboratory Work Order															
Laboratory Sample ID															
Sample Type															
<b>General Chemistry</b>															
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	19	21	7.1	24	-	11	11
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	40.1	47.5	35.1	54.3	-	35.9	33.1
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	n/v	6.02	5.59	6.81	7.02	6.99	6.03	6.75
<b>Soluble Parameters</b>															
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	61	<10	15	16	-	62	24
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	11.3	6.8	17.3	12.3	-	21.4	15.4
<b>Calculated Parameters</b>															
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> 350 <sup>N<sub>3</sub></sup> <sup>B</sup> 100 <sup>N<sub>3</sub></sup> <sup>C</sup> 600 <sup>N<sub>3</sub></sup> <sup>D</sup>	1,000,000, N <sub>3</sub> 2,500 <sup>N<sub>3</sub></sup> <sup>E</sup> 100 <sup>N<sub>3</sub></sup> <sup>F</sup> 600 <sup>N<sub>3</sub></sup> <sup>H</sup>	1,000,000, N <sub>3</sub> 2,500 <sup>N<sub>3</sub></sup> <sup>J</sup> 100 <sup>N<sub>3</sub></sup> <sup>K</sup> 600 <sup>N<sub>3</sub></sup> <sup>L</sup>	1,000,000, N <sub>3</sub> 350 <sup>N<sub>3</sub></sup> <sup>M</sup> 100 <sup>N<sub>3</sub></sup> <sup>O</sup> 600 <sup>N<sub>3</sub></sup> <sup>P</sup>	1,000,000, N <sub>3</sub> 2,500 <sup>N<sub>3</sub></sup> <sup>R</sup> 100 <sup>N<sub>3</sub></sup> <sup>S</sup> 600 <sup>N<sub>3</sub></sup> <sup>T</sup>	24.3	<4.8	5.3	8.7	-	22.3	8.0		
Sodium	mg/kg	1,000,000 <sup>A</sup> , N <sub>9</sub> AD 200 <sup>N<sub>9</sub></sup> <sup>B</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>C</sup>	1,000,000, N <sub>9</sub> EH 1,000 <sup>N<sub>9</sub></sup> <sup>F</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>G</sup>	1,000,000, N <sub>9</sub> 1,000 <sup>N<sub>9</sub></sup> <sup>I</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>K</sup>	1,000,000, N <sub>9</sub> MP 200 <sup>N<sub>9</sub></sup> <sup>J</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>O</sup>	1,000,000, N <sub>9</sub> Q 1,000 <sup>N<sub>9</sub></sup> <sup>R</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>S</sup>	4.5	3.2	6.1	6.7	-	7.7	5.1		
<b>Petroleum Hydrocarbons</b>															
Benzene	mg/kg	150 <sup>A</sup> 100 <sup>B</sup> 0.035 <sup>C</sup> 2.5 <sup>D</sup>	1,000 <sup>E</sup> 250 <sup>F</sup> 0.035 <sup>G</sup> 2.5 <sup>H</sup>	6,500 <sup>I</sup> 250 <sup>J</sup> 0.035 <sup>K</sup> 2.5 <sup>L</sup>	150 <sup>M</sup> 100 <sup>N</sup> 0.035 <sup>O</sup> 2.5 <sup>P</sup>	350 <sup>Q</sup> 250 <sup>R</sup> 0.035 <sup>S</sup> 2.5 <sup>T</sup>	-	-	<0.0050	<0.0050	-	-	<0.0050		
Toluene	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>C</sup> 0.50 <sup>D</sup>	20,000 <sup>E</sup> 450 <sup>F</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>G</sup> 0.50 <sup>H</sup>	550,000 <sup>I</sup> 450 <sup>J</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>K</sup> 0.50 <sup>L</sup>	3,500 <sup>M</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>O</sup> 0.50 <sup>P</sup>	6,500 <sup>Q</sup> 450 <sup>R</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>S</sup> 0.50 <sup>T</sup>	-	-	<0.050	<0.050	-	-	<0.050		
Ethylbenzene	mg/kg	4,000 <sup>A</sup> 200 <sup>B</sup> 15 <sup>C</sup>	25,000 <sup>E</sup> 650 <sup>F</sup> 15 <sup>G</sup> 200 <sup>H</sup>	700,000 <sup>I</sup> 650 <sup>J</sup> 15 <sup>K</sup> 200 <sup>L</sup>	4,000 <sup>M</sup> 200 <sup>N</sup> 15 <sup>O</sup> 20 <sup>P</sup>	8,500 <sup>Q</sup> 650 <sup>R</sup> 15 <sup>S</sup> 200 <sup>T</sup>	-	-	<0.010	<0.010	-	-	<0.010		
Xylene, m- & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.040	<0.040	-	-	<0.040	
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.040	<0.040	-	-	<0.040	
Xylenes, Total	mg/kg	8,500 <sup>A</sup> 150 <sup>B</sup> 6.5 <sup>C</sup> 20 <sup>D</sup>	50,000 <sup>E</sup> 600 <sup>F</sup> 6.5 <sup>G</sup> 20 <sup>H</sup>	1,000,000 <sup>I</sup> 600 <sup>J</sup> 6.5 <sup>K</sup> 20 <sup>L</sup>	8,500 <sup>M</sup> 150 <sup>N</sup> 6.5 <sup>O</sup> 20 <sup>P</sup>	15,000 <sup>Q</sup> 600 <sup>R</sup> 6.5 <sup>S</sup> 20 <sup>T</sup>	-	-	<0.040	<0.040	-	-	<0.040		
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<100	<100	-	-	<100	
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<100	<100	-	-	<100	
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<100	<100	-	-	<100	
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<100	<100	-	-	<100	
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<10	<10	-	-	<10	
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	<10	<10	-	-	<10	
<b>Metals</b>															
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	11,900	17,600	10,000	27,300	-	10,100	10,800
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	0.24	0.23	0.16	0.29	-	0.14	0.14
Arsenic	mg/kg	20 <sup>A</sup> 25 <sup>B</sup> 10 <sup>C</sup> D	150 <sup>E</sup> 40 <sup>F</sup> 10 <sup>G</sup> H	400 <sup>I</sup> 40 <sup>J</sup> 10 <sup>K</sup> L	20 <sup>M</sup> 25 <sup>N</sup> 10 <sup>O</sup> P	40 <sup>Q</sup> 10 <sup>R</sup> ST	2.50	4.37	2.07	5.34	-	2.62	-	1.81	
Barium	mg/kg	8,500 <sup>A</sup> 700 <sup>B</sup> 350 <sup>C</sup> 3,500 <sup>D</sup>	50,000 <sup>E</sup> 1,500 <sup>F</sup> 350 <sup>G</sup> 3,500 <sup>H</sup>	1,000,000 <sup>I</sup> 1,500 <sup>J</sup> 350 <sup>K</sup> 3,500 <sup>L</sup>	8,500 <sup>M</sup> 700 <sup>N</sup> 350 <sup>O</sup> 3,500 <sup>P</sup>	15,000 <sup>Q</sup> 1,500 <sup>R</sup> 350 <sup>S</sup> 3,500 <sup>T</sup>	44.8	59.2	33.4	88.4	-	42.9	-	35.8	
Beryllium	mg/kg	85 <sup>A</sup> 150 <sup>B</sup> 1.0-2,500 <sup>C</sup> PH1 <sup>D</sup> 1.0-500 <sup>E</sup> PH2 <sup>F</sup>	500 <sup>G</sup> 350 <sup>H</sup> 1.0-2,500 <sup>I</sup> PH1 <sup>J</sup> K 1.0-500 <sup>L</sup> PH2 <sup>M</sup>	15,000 <sup>N</sup> 350 <sup>O</sup> 1.0-2,500 <sup>P</sup> PH1 <sup>Q</sup> K 1.0-500 <sup>R</sup> PH2 <sup>S</sup>	85 <sup>M</sup> 150 <sup>N</sup> 1.0-2,500 <sup>O</sup> PH1 <sup>P</sup> 1.0-500 <sup>R</sup> PH2 <sup>T</sup>	150 <sup>Q</sup> 150 <sup>R</sup> 1.0-2,500 <sup>S</sup> PH1 <sup>T</sup> 1.0-500 <sup>R</sup> PH2 <sup>T</sup>	<0.20	0.22	<0.20	0.32	-	<0.20	-	<0.20	
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	<0.10	<0.10	-	<0.10	
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	2.4	2.6	2.3	2.9	-	1.8	1.7
Boron (Available)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	<0.10	<0.10	-	<0.10	
Cadmium	mg/kg	20 <sup>A</sup> 30 <sup>B</sup> 1.0-70 <sup>C</sup> H 1.0-50 <sup>D</sup> PH7 <sup>E</sup>	150 <sup>E</sup> 75 <sup>F</sup> 1.0-70 <sup>G</sup> PH6 <sup>H</sup> 1.0-50 <sup>I</sup> PH7 <sup>J</sup>	3,500 <sup>I</sup> 75 <sup>J</sup> 1.0-70 <sup>K</sup> PH6 <sup>L</sup> 1.0-50 <sup>M</sup> PH7 <sup>N</sup>	20 <sup>M</sup> 30 <sup>N</sup> 1.0-70 <sup>O</sup> PH6 <sup>P</sup> 1.0-50 <sup>R</sup> PH7 <sup>T</sup>	40 <sup>Q</sup> 75 <sup>R</sup> 1.0-70 <sup>S</sup> PH6 <sup>T</sup> 1.0-50 <sup>R</sup> PH7 <sup>T</sup>	0.094	0.062	0.288	0.093	-	<0.050	-	<0.0	

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1				Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RHLD)	BH21-02		BH21-03	
		Agricultural	Commercial	Industrial				26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21
Sample Date	<th>BH21-02 SA01</th> <th>BH21-02 SA02</th> <th>BH21-02 SA05</th> <th>BH21-03 SA01</th> <th>BH21-03 SA01</th> <th>BH21-03 SA03</th> <th>BH21-03 SA05</th> <th>BH21-03 SA01</th> <th>BH21-03 SA03</th> <th>BH21-03 SA05</th>	BH21-02 SA01	BH21-02 SA02	BH21-02 SA05	BH21-03 SA01	BH21-03 SA01	BH21-03 SA03	BH21-03 SA05	BH21-03 SA01	BH21-03 SA03	BH21-03 SA05
Sample ID		0.05 - 0.5 m	0.95 - 1.45 m	3.15 - 3.65 m	0.05 - 0.2 m	0.05 - 0.2 m	1.55 - 2.05 m	3.15 - 3.65 m	3.15 - 3.65 m	3.15 - 3.65 m	3.15 - 3.65 m
Sample Depth		STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV
Sampling Company		C195368 AME017	C195368 AME018	C195368 AME021	C195368 AME025	C195368 AME025	C195368 AME029	C195368 AME029	C195368 AME029	C195368 AME029	C195368 AME031
Laboratory											
Laboratory Work Order											
Laboratory Sample ID											
Sample Type											
<b>Polycyclic Aromatic Hydrocarbons</b>											
Acenaphthene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.0050	<0.0050	-
Acenaphthylene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.0050	<0.0050	-
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>	75,000 <sup>E</sup> 30 <sup>F</sup>	1,000,000 <sup>I</sup> 30 <sup>J</sup>	10,000 <sup>M</sup> 2.5 <sup>N</sup>	25,000 <sup>O</sup> 30 <sup>R</sup>	-	-	<0.0040	<0.0040	<0.0040
Benzo(a)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>	30 <sup>E</sup> 70 <sup>F</sup>	50 <sup>I</sup> 70 <sup>J</sup>	5.0 <sup>M</sup> 20 <sup>N</sup>	10 <sup>O</sup> 70 <sup>R</sup>	-	-	<0.020	<0.020	<0.020
Benzo(b)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Benzo(b)pyridine (Quinoline)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Benzo(b,j)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Chrysene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dibenz(a,h)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>	10,000 <sup>E</sup> 200 <sup>F</sup>	300,000 <sup>I</sup> 200 <sup>J</sup>	1,500 <sup>M</sup> 50 <sup>N</sup>	3,500 <sup>O</sup> 200 <sup>R</sup>	-	-	<0.020	<0.020	<0.020
Fluorene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
High Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Low Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Methylnaphthalene, 1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Methylnaphthalene, 2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>	5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>	150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>	850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>	1,500 <sup>Q</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>	-	-	<0.010	<0.010	<0.010
Phenanthrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.010	<0.010	<0.010
Pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Total PAH	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
<b>Volatile Organic Compounds</b>											
Bromobenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.20	<0.20	<0.20
Bromodichloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Bromoform (Tribromomethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Bromomethane (Methyl bromide)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.30	<0.30	<0.30
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Chloroethane (Ethyl Chloride)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.10	<0.10	<0.10
Chloroform (Trichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Chloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Dibromochloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.050	<0.050	<0.050
Dichlorobenzene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichlorobenzene, 1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichlorobenzene, 1,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichloroethane, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.025	<0.025	<0.025
Dichloroethane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichloroethene, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.025	<0.025	<0.025
Dichloroethene, cis-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.030	<0.030	<0.030
Dichloroethene, trans-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.030	<0.030	<0.030
Dichloropropane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichloropropene, 1,3- (sum of isomers cis + trans)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichloropropene, cis-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Dichloropropene, trans-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Ethylene Dibromide (Dibromoethane, 1,2-)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.20	<0.20	<0.20
Isopropylbenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.20	<0.20	<0.20
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.10	<0.10	<0.10
Methylene Chloride (Dichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.080	<0.080	<0.080
Styrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.030	<0.030	<0.030
Tetrachloroethane, 1,1,1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	<0.020	<0.020	<0.020
Tetrachloroethane, 1,1,2,2-	mg/kg	250 <sup>A</sup> 15 <sup>B</sup> 2.5 <sup>D</sup>	1,500 <sup>E</sup> 30 <sup>F</sup> 2.5 <sup>H</sup>	40,000 <sup>I</sup> 30 <sup>J</sup> 2.5 <sup>L</sup>	250 <sup>M</sup> 15 <sup>N</sup> 2.5 <sup>P</sup>	500 <sup>Q</sup> 30 <sup>R</sup> 2.5 <sup>T</sup>	-				

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	Agricultural	Commercial	Industrial	CSR-Schedule 3.1	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)	MW21-04		BH21-05		RPD (%)			
								26-Nov-21 MW21-04 SA01	26-Nov-21 MW21-04 SA05	26-Nov-21 BH21-05 SA01	26-Nov-21 BH21-05 SA03	26-Nov-21 BH21-05 SA05			
Sample Date								0.25 - 0.75 m STANTEC BV C195368 AME037	3.05 - 3.65 m STANTEC BV C195368 AME052	0.05 - 0.15 m STANTEC BV C195368 AME056	1.55 - 2.05 m STANTEC BV C195368 AME058	3.15 - 3.65 m STANTEC BV C195368 AME068	DUP21-04 3.15 - 3.65 m STANTEC BV C195368 AME068		
Sample ID															
Sample Depth															
Sampling Company															
Laboratory															
Laboratory Work Order															
Laboratory Sample ID															
Sample Type															
General Chemistry															
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	16	13	24	8.6	15	-	11	31%
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	46.9	34.1	52.5	34.0	34.0	34.0	34.1	nc
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	6.81	6.02	6.9	7.13	6.34	-	6.83	nc
Soluble Parameters															
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	209	50	22	136	108	108	108	0%
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	55.2	28.1	56.3	28.7	27.5	27.5	28.5	4%
Calculated Parameters															
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> 350 <sup>B</sup> , N <sub>3</sub> 100 <sup>C</sup> , N <sub>3</sub> 600 <sup>D</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> E 2,500 <sup>F</sup> , N <sub>3</sub> 100 <sup>G</sup> , N <sub>3</sub> 600 <sup>H</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> I 2,500 <sup>J</sup> , N <sub>3</sub> 100 <sup>K</sup> , N <sub>3</sub> 600 <sup>L</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> M 350 <sup>N</sup> , N <sub>3</sub> 100 <sup>O</sup> , N <sub>3</sub> 600 <sup>P</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> Q 2,500 <sup>R</sup> , N <sub>3</sub> 100 <sup>S</sup> , N <sub>3</sub> 600 <sup>T</sup> , N <sub>3</sub>	98.1	17.0	11.5	46.3	36.6	-	36.7	0%	
Sodium	mg/kg	1,000,000, N <sub>3</sub> AD 200 <sup>B</sup> , N <sub>3</sub> 15,000 <sup>C</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> EH 1,000 <sup>F</sup> , N <sub>3</sub> 15,000 <sup>G</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> I 1,000 <sup>J</sup> , N <sub>3</sub> 15,000 <sup>K</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> MP 200 <sup>N</sup> , N <sub>3</sub> 15,000 <sup>O</sup> , N <sub>3</sub>	1,000,000, N <sub>3</sub> QT 1,000 <sup>R</sup> , N <sub>3</sub> 15,000 <sup>S</sup> , N <sub>3</sub>	25.9	9.6	29.5	9.8	9.4	-	9.7	nc	
Petroleum Hydrocarbons															
Benzene	mg/kg	150 <sup>A</sup> , 100 <sup>B</sup> , 0.035 <sup>C</sup> , 2.5 <sup>D</sup>	1,000 <sup>E</sup> , 250 <sup>F</sup> , 0.035 <sup>G</sup> , 2.5 <sup>H</sup>	6,500 <sup>I</sup> , 250 <sup>J</sup> , 0.035 <sup>K</sup> , 2.5 <sup>L</sup>	150 <sup>M</sup> , 100 <sup>N</sup> , 0.035 <sup>O</sup> , 2.5 <sup>P</sup>	350 <sup>Q</sup> , 250 <sup>R</sup> , 0.035 <sup>S</sup> , 2.5 <sup>T</sup>	-	<0.0050	<0.0050	<0.0050	<0.0050	-	-	-	-
Toluene	mg/kg	3,500 <sup>A</sup> , 150 <sup>B</sup> , 6.0 <sup>C</sup> , 0.50 <sup>D</sup>	20,000 <sup>E</sup> , 450 <sup>F</sup> , 6.0 <sup>G</sup> , 0.50 <sup>H</sup>	550,000 <sup>I</sup> , 450 <sup>J</sup> , 6.0 <sup>K</sup> , 0.50 <sup>L</sup>	3,500 <sup>M</sup> , 60.0 <sup>N</sup> , 0.50 <sup>O</sup>	6,500 <sup>Q</sup> , 450 <sup>R</sup> , 6.0 <sup>S</sup> , 0.50 <sup>T</sup>	-	<0.050	<0.050	<0.050	<0.050	-	-	-	-
Ethylbenzene	mg/kg	4,000 <sup>A</sup> , 200 <sup>B</sup> , 15 <sup>C</sup>	25,000 <sup>E</sup> , 650 <sup>F</sup> , 15 <sup>G</sup> , 200 <sup>H</sup>	700,000 <sup>I</sup> , 650 <sup>J</sup> , 15 <sup>K</sup> , 200 <sup>L</sup>	4,000 <sup>M</sup> , 200 <sup>N</sup> , 15 <sup>O</sup>	8,500 <sup>Q</sup> , 650 <sup>R</sup> , 15 <sup>S</sup> , 200 <sup>T</sup>	-	<0.10	<0.10	<0.10	<0.10	-	-	-	-
Xylene, m & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<0.040	<0.040	<0.040	<0.040	-	-	-	-
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<0.040	<0.040	<0.040	<0.040	-	-	-	-
Xylenes, Total	mg/kg	8,500 <sup>A</sup> , 150 <sup>B</sup> , 6.5 <sup>C</sup> , 20 <sup>D</sup>	50,000 <sup>E</sup> , 600 <sup>F</sup> , 6.5 <sup>G</sup> , 20 <sup>H</sup>	1,000,000 <sup>I</sup> , 600 <sup>J</sup> , 6.5 <sup>K</sup> , 20 <sup>L</sup>	8,500 <sup>M</sup> , 150 <sup>N</sup> , 6.5 <sup>O</sup> , 20 <sup>P</sup>	15,000 <sup>Q</sup> , 600 <sup>R</sup> , 6.5 <sup>S</sup> , 20 <sup>T</sup>	-	<0.040	<0.040	<0.040	<0.040	-	-	-	-
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<100	<100	<100	<100	-	-	-	-
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<100	<100	<100	<100	-	-	-	-
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<100	<100	<100	<100	-	-	-	-
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<100	<100	<100	<100	-	-	-	-
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<10	<10	<10	<10	-	-	-	-
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<10	<10	<10	<10	-	-	-	-
Metals															
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	22,200	10,000	24,900	10,800	10,600	-	10,500	1%
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	0.23	0.21	0.14	0.14	0.15	-	0.13	nc
Arsenic	mg/kg	20 <sup>A</sup> , 25 <sup>B</sup> , 10 <sup>C</sup>	150 <sup>E</sup> , 40 <sup>F</sup> , 10 <sup>G</sup>	400 <sup>I</sup> , 40 <sup>J</sup> , 10 <sup>K</sup>	20 <sup>M</sup> , 25 <sup>N</sup> , 10 <sup>O</sup>	40 <sup>Q</sup> , 10 <sup>R</sup>	5.12	1.96	4.83	2.52	1.82	-	1.68	8%	
Barium	mg/kg	8,500 <sup>A</sup> , 700 <sup>B</sup> , 350 <sup>C</sup> , 3,500 <sup>D</sup>	50,000 <sup>E</sup> , 1,500 <sup>F</sup> , 350 <sup>G</sup> , 3,500 <sup>H</sup>	1,000,000 <sup>I</sup> , 1,500 <sup>J</sup> , 350 <sup>K</sup> , 3,500 <sup>L</sup>	8,500 <sup>M</sup> , 700 <sup>N</sup> , 350 <sup>O</sup> , 3,500 <sup>P</sup>	15,000 <sup>Q</sup> , 1,500 <sup>R</sup> , 350 <sup>S</sup> , 3,500 <sup>T</sup>	82.2	32.8	64.7	34.1	41.4	-	34.2	19%	
Beryllium	mg/kg	85 <sup>A</sup> , 150 <sup>B</sup> , 1.0-2,500 <sup>C</sup> , PH1 <sup>D</sup>	500 <sup>E</sup> , 350 <sup>F</sup> , 1.0-2,500 <sup>G</sup> , PH1 <sup>H</sup>	15,000 <sup>I</sup> , 350 <sup>J</sup> , 1.0-2,500 <sup>K</sup> , PH1 <sup>L</sup>	85 <sup>M</sup> , 150 <sup>N</sup> , 1.0-2,500 <sup>O</sup> , PH1 <sup>P</sup>	150 <sup>Q</sup> , 350 <sup>R</sup> , 1.0-2,500 <sup>S</sup> , PH1 <sup>T</sup>	0.24	<0.20	0.38	<0.20	<0.20	-	<0.20	nc	
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<0.10	<0.10	<0.10	<0.10	-	-	<0.10	nc
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	-	2.5	1.7	1.9	1.5	-	1.7	-	nc
Boron (Available)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	<0.10	<0.10	<0.10	<0.10	-	-	<0.10	nc
Cadmium	mg/kg	20 <sup>A</sup> , 30 <sup>B</sup> , 1.0-70 <sup>C</sup> , PH7 <sup>D</sup>	150 <sup>E</sup> , 75 <sup>F</sup> , 1.0-70 <sup>G</sup> , PH7 <sup>H</sup>	3,500 <sup>I</sup> , 75 <sup>J</sup> , 1.0-70 <sup>K</sup> , PH7 <sup>L</sup>	20 <sup>M</sup> , 30 <sup>N</sup> , 1.0-70 <sup>O</sup> , PH7 <sup>P</sup>	40 <sup>Q</sup> , 75 <sup>R</sup> , 1.0-70 <sup>S</sup> , PH7 <sup>T</sup>	0.071	<0.050	0.070	<0.050	<0.050	-	<0.050	nc	
Calcium	mg/kg	n/v	n/v	n/v	n/v	n/v	-	2,050	3,470	2,280	3,180	-	3,580	-	3,5

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location Sample Date Sample ID Sample Depth Sampling Company Laboratory Laboratory Work Order Laboratory Sample ID Sample Type	Units	CSR-Schedule 3.1						MW21-04		BH21-05							
		Agricultural		Commercial		Industrial		26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	26-Nov-21	DUP21-04		
		MW21-04 SA01	MW21-04 SA05	BH21-05 SA01	BH21-05 SA03	BH21-05 SA05	BH21-05 SA05	0.25 - 0.75 m	3.05 - 3.65 m	0.05 - 0.15 m	1.55 - 2.05 m	3.15 - 3.65 m	STANTEC BV	STANTEC BV	STANTEC BV	STANTEC BV	3.15 - 3.65 m
		C195368	AME037	C195368	AME052	C195368	AME056	C195368	C195368	C195368	C195368	C195368	AME058	AME068	Lab Replicate	Field Duplicate	RPD (%)
<b>Polycyclic Aromatic Hydrocarbons</b>																	
Acenaphthene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.0050	<0.0050	-	<0.0050	-	-	-	-	-
Acenaphthylene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.0050	<0.0050	-	<0.0050	-	-	-	-	-
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>	75,000 <sup>E</sup> 30 <sup>F</sup>	1,000,000 <sup>I</sup> 30 <sup>J</sup>	10,000 <sup>M</sup> 2.5 <sup>N</sup>	10,000 <sup>O</sup> 30 <sup>R</sup>	-	<0.0040	<0.0040	-	<0.0040	-	-	-	-	-	-
Benzo(a)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>	30 <sup>E</sup> 70 <sup>F</sup>	50 <sup>I</sup> 70 <sup>J</sup>	5.0 <sup>M</sup> 20 <sup>N</sup>	10 <sup>O</sup> 70 <sup>R</sup>	-	<0.020	<0.020	-	<0.020	-	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Benzo(b)pyridine (Quinoline)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Benzo(b,j)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Chrysene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>	10,000 <sup>E</sup> 200 <sup>F</sup>	300,000 <sup>I</sup> 200 <sup>J</sup>	1,500 <sup>M</sup> 50 <sup>N</sup>	3,500 <sup>O</sup> 200 <sup>R</sup>	-	<0.020	<0.020	-	<0.020	-	-	-	-	-	-
Fluorene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
High Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Low Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Methylnaphthalene, 1-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Methylnaphthalene, 2-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>	5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>	150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>	850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>	1,500 <sup>Q</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>	-	<0.010	<0.010	-	<0.010	-	-	-	-	-	-
Phenanthrene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.010	<0.010	-	<0.010	-	-	-	-	-
Pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Total PAH	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
<b>Volatile Organic Compounds</b>																	
Bromobenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.20	<0.20	-	<0.20	-	-	-	-	-
Bromodichloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Bromoform (Tribromomethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.30	<0.30	-	<0.30	-	-	-	-	-
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Chloroethane (Ethyl Chloride)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.10	<0.10	-	<0.10	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Chloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Dibromochloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.050	<0.050	-	<0.050	-	-	-	-	-
Dichlorobenzene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Dichlorobenzene, 1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Dichlorobenzene, 1,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Dichloroethane, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.025	<0.025	-	<0.025	-	-	-	-	-
Dichloroethane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.020	<0.020	-	<0.020	-	-	-	-	-
Dichloroethene, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.025	<0.025	-	<0.025	-	-	-	-	-
Dichloroethene, cis-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.030	<0.030	-	<0.030	-	-	-	-	-
Dichloroethene, trans-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	<0.030	<0.030	-	<0.030</					

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	Agricultural	Commercial	Industrial	CSR-Schedule 3.1	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)	26-Nov-21 MW21-06 SA01	26-Nov-21 MW21-06 SA01	26-Nov-21 MW21-06 SA02	26-Nov-21 MW21-06 SA02	26-Nov-21 MW21-06 SA05	26-Nov-21 MW21-06 SA05	
Sample Date								0.05 - 0.25 m STANTEC BV C195368 AME072	0.05 - 0.25 m STANTEC BV C195368 AME072	0.95 - 1.45 m STANTEC BV C195368 AME073	0.95 - 1.45 m STANTEC BV C195368 AME073	3.15 - 3.65 m STANTEC BV C195368 AME076	3.15 - 3.65 m STANTEC BV C195368 AME076	
Sample ID														
Sample Depth														
Sampling Company														
Laboratory														
Laboratory Work Order														
Laboratory Sample ID														
Sample Type														
<b>General Chemistry</b>														
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	21	20	22	22	21	-	-
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	61.0	-	50.1	-	46.3	-	-
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	6.69	-	5.86	-	6.1	-	-
<b>Soluble Parameters</b>														
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	10	-	13	-	<10	-	-
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	5.4	-	<5.0	-	9.5	-	-
<b>Calculated Parameters</b>														
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> 350 <sup>B</sup> , N <sub>3</sub> 100 <sup>C</sup> , N <sub>3</sub> 600 <sup>D</sup> , N <sub>3</sub>	1,000,000 <sup>E</sup> , N <sub>3</sub> 2,500 <sup>F</sup> , N <sub>3</sub> 100 <sup>G</sup> , N <sub>3</sub> 600 <sup>H</sup> , N <sub>3</sub>	1,000,000 <sup>I</sup> , N <sub>3</sub> 2,500 <sup>J</sup> , N <sub>3</sub> 100 <sup>K</sup> , N <sub>3</sub> 600 <sup>L</sup> , N <sub>3</sub>	1,000,000 <sup>M</sup> , N <sub>3</sub> 350 <sup>N</sup> , N <sub>3</sub> 100 <sup>O</sup> , N <sub>3</sub> 600 <sup>P</sup> , N <sub>3</sub>	1,000,000 <sup>Q</sup> , N <sub>3</sub> 2,500 <sup>R</sup> , N <sub>3</sub> 100 <sup>S</sup> , N <sub>3</sub> 600 <sup>T</sup> , N <sub>3</sub>	6.2	-	6.4	-	<4.6	-	-	
Sodium	mg/kg	1,000,000 <sup>A</sup> , N <sub>9</sub> AD 200 <sup>B</sup> , N <sub>9</sub> 15,000 <sup>C</sup> , N <sub>9</sub>	1,000,000 <sup>E</sup> , N <sub>9</sub> EH 1,000 <sup>F</sup> , N <sub>9</sub> 15,000 <sup>G</sup> , N <sub>9</sub>	1,000,000 <sup>I</sup> , N <sub>9</sub> EH 1,000 <sup>J</sup> , N <sub>9</sub> 15,000 <sup>K</sup> , N <sub>9</sub>	1,000,000 <sup>M</sup> , N <sub>9</sub> MP 200 <sup>N</sup> , N <sub>9</sub> 15,000 <sup>O</sup> , N <sub>9</sub>	1,000,000 <sup>Q</sup> , N <sub>9</sub> QT 1,000 <sup>R</sup> , N <sub>9</sub> 15,000 <sup>S</sup> , N <sub>9</sub>	3.3	-	<2.5	-	4.4	-	-	
<b>Petroleum Hydrocarbons</b>														
Benzene	mg/kg	150 <sup>A</sup> 100 <sup>B</sup> 0.035 <sup>C</sup> 2.5 <sup>D</sup>	1,000 <sup>E</sup> 250 <sup>F</sup> 0.035 <sup>G</sup> 2.5 <sup>H</sup>	6,500 <sup>I</sup> 250 <sup>J</sup> 0.035 <sup>K</sup> 2.5 <sup>L</sup>	150 <sup>M</sup> 100 <sup>N</sup> 0.035 <sup>O</sup> 2.5 <sup>P</sup>	350 <sup>Q</sup> 250 <sup>R</sup> 0.035 <sup>S</sup> 2.5 <sup>T</sup>	-	-	-	-	<0.0050	-	-	
Toluene	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 6.0 <sup>C</sup> , N <sub>2</sub> 0.50 <sup>D</sup>	20,000 <sup>E</sup> 450 <sup>F</sup> 6.0 <sup>G</sup> , N <sub>2</sub> 0.50 <sup>H</sup>	550,000 <sup>I</sup> 450 <sup>J</sup> 6.0 <sup>K</sup> , N <sub>2</sub> 0.50 <sup>L</sup>	3,500 <sup>M</sup> 450 <sup>N</sup> 6.0 <sup>O</sup> , N <sub>2</sub> 0.50 <sup>P</sup>	6,500 <sup>Q</sup> 450 <sup>R</sup> 6.0 <sup>S</sup> , N <sub>2</sub> 0.50 <sup>T</sup>	-	-	-	-	<0.050	-	-	
Ethylbenzene	mg/kg	4,000 <sup>A</sup> 200 <sup>B</sup> 15 <sup>C</sup>	25,000 <sup>E</sup> 650 <sup>F</sup> 15 <sup>G</sup> 200 <sup>H</sup>	700,000 <sup>I</sup> 650 <sup>J</sup> 15 <sup>K</sup> 200 <sup>L</sup>	4,000 <sup>M</sup> 200 <sup>N</sup> 15 <sup>O</sup> 200 <sup>P</sup>	8,500 <sup>Q</sup> 650 <sup>R</sup> 15 <sup>S</sup> 200 <sup>T</sup>	-	-	-	-	<0.010	-	-	
Xylene, m & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<0.040	-	-
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<0.040	-	-
Xylenes, Total	mg/kg	8,500 <sup>A</sup> 150 <sup>B</sup> 6.5 <sup>C</sup> 20 <sup>D</sup>	50,000 <sup>E</sup> 600 <sup>F</sup> 6.5 <sup>G</sup> 20 <sup>H</sup>	1,000,000 <sup>I</sup> 600 <sup>J</sup> 6.5 <sup>K</sup> 20 <sup>L</sup>	8,500 <sup>M</sup> 150 <sup>N</sup> 6.5 <sup>O</sup> 20 <sup>P</sup>	15,000 <sup>Q</sup> 600 <sup>R</sup> 6.5 <sup>S</sup> 20 <sup>T</sup>	-	-	-	-	<0.040	-	-	
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<100	<100	-
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<100	<100	-
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<100	<100	-
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<100	<100	-
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<10	<10	-
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	<10	<10	-
<b>Metals</b>														
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	14,100	-	22,600	-	19,000	-	-
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	0.32	-	0.25	-	0.17	-	-
Arsenic	mg/kg	20 <sup>A</sup> 25 <sup>B</sup> 10 <sup>C</sup> CD	150 <sup>E</sup> 40 <sup>F</sup> 10 <sup>G</sup> GH	400 <sup>I</sup> 40 <sup>J</sup> 10 <sup>K</sup> KL	20 <sup>M</sup> 25 <sup>N</sup> 10 <sup>O</sup> OP	40 <sup>Q</sup> 10 <sup>R</sup> ST	3.12	-	4.56	-	3.11	-	-	
Barium	mg/kg	8,500 <sup>A</sup> 700 <sup>B</sup> 350 <sup>C</sup> 3,500 <sup>D</sup>	50,000 <sup>E</sup> 1,500 <sup>F</sup> 350 <sup>G</sup> 3,500 <sup>H</sup>	1,000,000 <sup>I</sup> 1,500 <sup>J</sup> 350 <sup>K</sup> 3,500 <sup>L</sup>	8,500 <sup>M</sup> 700 <sup>N</sup> 350 <sup>O</sup> 3,500 <sup>P</sup>	15,000 <sup>Q</sup> 1,500 <sup>R</sup> 350 <sup>S</sup> 3,500 <sup>T</sup>	53.6	-	82.2	-	33.9	-	-	
Beryllium	mg/kg	85 <sup>A</sup> 150 <sup>B</sup> 1.0-2,500 <sup>C</sup> PH1 <sup>D</sup> 1.0-500 <sup>E</sup> PH2 <sup>F</sup>	500 <sup>E</sup> 350 <sup>F</sup> 1.0-2,500 <sup>G</sup> PH1 <sup>H</sup> 1.0-500 <sup>I</sup> PH2 <sup>J</sup>	15,000 <sup>I</sup> 350 <sup>J</sup> 1.0-2,500 <sup>K</sup> PH1 <sup>L</sup> 1.0-500 <sup>M</sup> PH2 <sup>N</sup>	85 <sup>M</sup> 150 <sup>N</sup> 1.0-2,500 <sup>O</sup> PH1 <sup>P</sup> 1.0-500 <sup>Q</sup> PH2 <sup>R</sup>	150 <sup>Q</sup> 150 <sup>R</sup> 1.0-2,500 <sup>S</sup> PH1 <sup>T</sup> 1.0-500 <sup>U</sup> PH2 <sup>V</sup>	0.23	-	0.27	-	0.26	-	-	
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	-	<0.10	-	<0.10	-	-
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	1.7	-	2.1	-	2.0	-	-
Boron (Available)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	-	<0.10	-	<0.10	-	-
Cadmium	mg/kg	20 <sup>A</sup> 30 <sup>B</sup> 1.0-70 <sup>C</sup> PH6 <sup>D</sup> 1.0-50 <sup>E</sup> PH7 <sup>F</sup>	150 <sup>E</sup> 75 <sup>F</sup> 1.0-70 <sup>G</sup> PH6 <sup>H</sup> 1.0-50 <sup>I</sup> PH7 <sup>J</sup>	3,500 <sup>I</sup> 75 <sup>J</sup> 1.0-70 <sup>K</sup> PH6 <sup>L</sup> 1.0-50 <sup>M</sup> PH7 <sup>N</sup>	20 <sup>M</sup> 30 <sup>N</sup> 1.0-70 <sup>O</sup> PH6 <sup>P</sup> 1.0-50 <sup>Q</sup> PH7 <sup>R</sup>	40 <sup>Q</sup> 75 <sup>R</sup> 1.0-70 <sup>S</sup> PH6 <sup>T</sup> 1.0-50 <sup>U</sup> PH7 <sup>V</sup>	0.141	-	0.082	-	<0.050	-	-	
Calcium	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	3,070	-	1,700	-	2,290	-	-
Chromium	mg/kg	100 <sup>A</sup> , N <sub>4</sub> 200 <sup>B</sup> , N <sub>4</sub> 60/1,000,000 <sup>C</sup> , N <sub>5</sub> , N <sub>6</sub> 60/300,000 <sup>D</sup> , N <sub>5</sub> , N <sub>6</sub>	750 <sup>E</sup> , N <sub>4</sub> 250 <sup>F</sup> , N <sub>4</sub> 60/1,000,000 <sup>G</sup> , N <sub>5</sub> , N <sub>6</sub> 60/300,000 <sup>H</sup> , N <sub>5</sub> , N <sub>6</sub>	20,000 <sup>I</sup> , N <sub>4</sub> 250 <sup>J</sup> , N <sub>4</sub> 60/1,000,000 <sup>K</sup> , N <sub>5</sub> , N <sub>6</sub> 60/300,000 <sup>L</sup> , N <sub>5</sub> , N <sub>6</sub>	100 <sup>M</sup> , N <sub>4</sub> 200 <sup>N</sup> , N <sub>4</sub> 60/1,000,000 <sup>O</sup> , N <sub>5</sub> , N <sub>6</sub> 60/300,000 <sup>P</sup> , N <sub>5</sub> , N <sub>6</sub>	250 <sup>Q</sup> , N <sub>4</sub> 60/1,000,000 <sup>R</sup> , N <sub>5</sub> , N <sub>6</sub> 60/300,000 <sup>S</sup> , N <sub>5</sub> , N <sub>6</sub>	22.6	-	32.3	-	22.3	-	-	

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location		Units	CSR-Schedule 3.1												MW21-06							
			Agricultural			Commercial			Industrial			Residential Low Density Land Use (RLLD)			Residential High Density Land Use (RLHD)			26-Nov-21 MW21-06 SA01	26-Nov-21 MW21-06 SA01	26-Nov-21 MW21-06 SA02	26-Nov-21 MW21-06 SA02	26-Nov-21 MW21-06 SA05
Sample Date			n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	n/v	0.05 - 0.25 m STANTEC BV C195368 AME072	0.05 - 0.25 m STANTEC BV C195368 AME072	0.95 - 1.45 m STANTEC BV C195368 AME073	0.95 - 1.45 m STANTEC BV C195368 AME073	3.15 - 3.65 m STANTEC BV C195368 AME076	3.15 - 3.65 m STANTEC BV C195368 AME076	
<b>Polycyclic Aromatic Hydrocarbons</b>																						
Acenaphthene	mg/kg		n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.0050	<0.0050
Acenaphthylene	mg/kg		n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.0050	<0.0050
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>			75,000 <sup>E</sup> 30 <sup>F</sup>			1,000,000 <sup>I</sup> 30 <sup>J</sup>			10,000 <sup>M</sup> 2.5 <sup>N</sup>			25,000 <sup>O</sup> 30 <sup>R</sup>		-	-	-	-	<0.040	<0.040	
Benzo(a)anthracene	mg/kg		n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>			30 <sup>E</sup> 70 <sup>F</sup>			50 <sup>I</sup> 70 <sup>J</sup>			5.0 <sup>M</sup> 20 <sup>N</sup>			10 <sup>O</sup> 70 <sup>R</sup>		-	-	-	-	<0.020	<0.020	
Benzo(b)fluoranthene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Benzo(b)pyridine (Quinoline)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	<0.050	
Benzo(b/j)fluoranthene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Benzo(g,h,i)perylene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	<0.050	
Benzo(k)fluoranthene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Chrysene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Dibenzo(a,h)anthracene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>			10,000 <sup>E</sup> 200 <sup>F</sup>			300,000 <sup>I</sup> 200 <sup>J</sup>			1,500 <sup>M</sup> 50 <sup>N</sup>			3,500 <sup>O</sup> 200 <sup>R</sup>		-	-	-	-	<0.020	<0.020	
Fluorene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
High Molecular Weight PAHs	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Indeno(1,2,3-cd)pyrene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Low Molecular Weight PAHs	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Methylnaphthalene, 1-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	<0.050	
Methylnaphthalene, 2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>			5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>			150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>			850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>			1,500 <sup>O</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>		-	-	-	-	<0.010	<0.010	
Phenanthrene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.010	<0.010	
Pyrene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	<0.020	
Total PAH	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
<b>Volatile Organic Compounds</b>																				<0.20	-	
Bromobenzene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Bromodichloromethane	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Bromoform (Tribromomethane)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Bromomethane (Methyl bromide)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.30	-	
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Chloroethane (Ethyl Chloride)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.10	-	
Chloroform (Trichloromethane)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Chloromethane	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Dibromochloromethane	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.050	-	
Dichlorobenzene, 1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichlorobenzene, 1,3-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichlorobenzene, 1,4-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichloroethane, 1,1-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.025	-	
Dichloroethane, 1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichloroethene, 1,1-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.025	-	
Dichloroethene, cis-1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.030	-	
Dichloroethene, trans-1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.030	-	
Dichloropropane, 1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichloropropene, 1,3- (sum of isomers cis + trans)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichloropropene, cis-1,3-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Dichloropropene, trans-1,3-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Ethylene Dibromide (Dibromomethane, 1,2-)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.20	-	
Isopropylbenzene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.20	-	
Methyl tert-butyl ether (MTBE)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.10	-	
Methylene Chloride (Dichloromethane)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.080	-	
Styrene	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.030	-	
Tetrachloroethane, 1,1,1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Tetrachloroethane, 1,1,2,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Tetrachloroethene (PCE)	mg/kg	250 <sup>A</sup> 15 <sup>B</sup> 2.5 <sup>D</sup>			1,500 <sup>E</sup> 30 <sup>F</sup> 2.5 <sup>H</sup>			40,000 <sup>I</sup> 30 <sup>J</sup> 2.5 <sup>L</sup>			250 <sup>M</sup> 15 <sup>N</sup> 2.5 <sup>P</sup>			500 <sup>O</sup> 30 <sup>R</sup> 2.5 <sup>T</sup>		-	-	-	<0.010	-		
Trichlorobenzene, 1,2,3-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.030	-	
Trichlorobenzene, 1,2,4-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.030	-	
Trichloroethane, 1,1,1-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Trichloroethane, 1,1,2-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.020	-	
Trichloroethene (TCE)	mg/kg	20 <sup>A</sup> 15 <sup>B</sup> 0.30 <sup>D</sup>			150 <sup>E</sup> 25 <sup>F</sup> 0.30 <sup>H</sup>			3,500 <sup>I</sup> 25 <sup>J</sup> 0.30 <sup>L</sup>			20 <sup>M</sup> 15 <sup>N</sup> 0.30 <sup>P</sup>			40 <sup>O</sup> 25 <sup>R</sup> 0.30 <sup>T</sup>		-	-	-	<0.0090	-		
Trichlorofluoromethane (Freon 11)	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-	-	-	<0.20	-	
Trimethylbenzene, 1,3,5-	mg/kg	n/v			n/v			n/v			n/v			n/v		-	-					

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See notes on last page.

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1						BH21-07						BH21-07														
Sample Date		Agricultural			Commercial			Industrial			Residential Low Density Land Use (RLLD)			Residential High Density Land Use (RLHD)			29-Nov-21 BH21-07, SA01	29-Nov-21 BH21-07, SA01	29-Nov-21 BH21-07, SA02	29-Nov-21 BH21-07, SA02	29-Nov-21 BH21-07, SA04	29-Nov-21 BH21-07, SA04						
Sample ID																	0.3 - 0.61 m STANTEC BV	0.3 - 0.61 m STANTEC BV	0.91 - 1.22 m STANTEC BV	0.91 - 1.22 m STANTEC BV	2.44 - 2.74 m STANTEC BV	2.44 - 2.74 m STANTEC BV						
Sample Depth																	C195347 AMD913	C195347 AMD913	C195347 AMD914	C195347 AMD914	C195347 AMD916	C195347 AMD916						
Sampling Company																	Lab-Dup	Lab-Dup	Lab-Dup	Lab-Dup	Lab-Dup	Lab-Dup						
Laboratory																	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC	STANTEC						
Laboratory Work Order																	C195347	C195347	C195347	C195347	C195347	C195347						
Laboratory Sample ID																	AMD913	AMD913	AMD914	AMD914	AMD916	AMD916						
Sample Type																	Lab Replicate	Lab Replicate	Lab Replicate	Lab Replicate	Lab Replicate	Lab Replicate						
<b>General Chemistry</b>																												
Moisture Content	%	n/v			n/v			n/v			n/v			n/v			23	-	22	-	-	18	15					
Percent Saturation	%	n/v			n/v			n/v			n/v			n/v			45.4	-	43.8	-	-	37.5	-					
Soluble (2:1) pH	S.U.	n/v			n/v			n/v			n/v			n/v			5.49	-	5.48	-	-	6.07	-					
<b>Soluble Parameters</b>																												
Chloride	mg/L	n/v			n/v			n/v			n/v			<10			<10	-	<10	-	-	<10	-					
Sodium	mg/L	n/v			n/v			n/v			n/v			<5.0			<5.0	-	<5.0	-	-	7.7	-					
<b>Calculated Parameters</b>																												
Chloride	mg/kg	1,000,000 <sub>N3</sub> <sup>A</sup> 350 <sub>N3</sub> <sup>B</sup> 100 <sub>N3</sub> <sup>C</sup> 600 <sub>N3</sub> <sup>D</sup>			1,000,000 <sub>N3</sub> <sup>E</sup> 2,500 <sub>N3</sub> <sup>F</sup> 100 <sub>N3</sub> <sup>G</sup> 600 <sub>N3</sub> <sup>H</sup>			1,000,000 <sub>N3</sub> <sup>I</sup> 2,500 <sub>N3</sub> <sup>J</sup> 100 <sub>N3</sub> <sup>K</sup> 600 <sub>N3</sub> <sup>L</sup>				1,000,000 <sub>N3</sub> <sup>M</sup> 350 <sub>N3</sub> <sup>N</sup> 100 <sub>N3</sub> <sup>O</sup> 600 <sub>N3</sub> <sup>P</sup>				1,000,000 <sub>N3</sub> <sup>Q</sup> 2,500 <sub>N3</sub> <sup>R</sup> 100 <sub>N3</sub> <sup>S</sup> 600 <sub>N3</sub> <sup>T</sup>				<4.5			<4.4	-	<2.2	-	<3.8	-
Sodium	mg/kg	1,000,000 <sub>N3</sub> <sup>AD</sup> 200 <sub>N3</sub> <sup>B</sup> 15,000 <sub>N3</sub> <sup>C</sup>			1,000,000 <sub>N3</sub> <sup>EH</sup> 1,000 <sub>N3</sub> <sup>F</sup> 15,000 <sub>N3</sub> <sup>G</sup>			1,000,000 <sub>N3</sub> <sup>I</sup> 1,000 <sub>N3</sub> <sup>J</sup> 15,000 <sub>N3</sub> <sup>K</sup>				1,000,000 <sub>N3</sub> <sup>MP</sup> 200 <sub>N3</sub> <sup>N 15,000<sub>N3</sub><sup>O</sup></sup>				1,000,000 <sub>N3</sub> <sup>QT</sup> 1,000 <sub>N3</sub> <sup>R</sup> 15,000 <sub>N3</sub> <sup>S</sup>				<2.3			<100	-	2.9	-	-	-
<b>Petroleum Hydrocarbons</b>																												
Benzene	mg/kg	150 <sup>A</sup> 100 <sup>B</sup> 0.035 <sup>C</sup> 2.5 <sup>D</sup>			1,000 <sup>E</sup> 250 <sup>F</sup> 0.035 <sup>G</sup> 2.5 <sup>H</sup>			6,500 <sup>I</sup> 250 <sup>J</sup> 0.035 <sup>K</sup> 2.5 <sup>L</sup>			150 <sup>M</sup> 100 <sup>N</sup> 0.035 <sup>O</sup> 2.5 <sup>P</sup>			350 <sup>Q</sup> 250 <sup>R</sup> 0.035 <sup>S</sup> 2.5 <sup>T</sup>			-			-	-	-	-	-	-			
Toluene	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 6.0 <sub>N2</sub> <sup>C</sup> 0.50 <sup>D</sup>			20,000 <sup>E</sup> 450 <sup>F</sup> 6.0 <sub>N2</sub> <sup>G</sup> 0.50 <sup>H</sup>			550,000 <sup>I</sup> 450 <sup>J</sup> 6.0 <sub>N2</sub> <sup>K</sup> 0.50 <sup>L</sup>			3,500 <sup>M</sup> 450 <sup>N</sup> 6.0 <sub>N2</sub> <sup>O</sup> 0.50 <sup>P</sup>			6,500 <sup>Q</sup> 450 <sup>R</sup> 6.0 <sub>N2</sub> <sup>S</sup> 0.50 <sup>T</sup>			-			-	-	-	-	-	-			
Ethylbenzene	mg/kg	4,000 <sup>A</sup> 200 <sup>B</sup> 15 <sup>C</sup>			25,000 <sup>E</sup> 650 <sup>F</sup> 15 <sup>G</sup> 200 <sup>H</sup>			700,000 <sup>I</sup> 650 <sup>J</sup> 15 <sup>K</sup> 200 <sup>L</sup>			4,000 <sup>M</sup> 200 <sup>N</sup> 15 <sup>O</sup> 20 <sup>P</sup>			8,500 <sup>Q</sup> 650 <sup>R</sup> 15 <sup>S</sup> 200 <sup>T</sup>			-			-	-	-	-	-	-			
Xylene, m & p-	mg/kg	n/v			n/v			n/v			n/v			n/v			-	-	-	-	-	-	-					
Xylene, o-	mg/kg	n/v																										

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

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See notes on last page.

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1						BH21-08	BH21-08	BH21-08	BH21-09	BH21-09	BH21-09	BH21-09	BH21-09
Sample Date		Agricultural	Commercial	Industrial	Residential Low Density Land Use (RLLD)		Residential High Density Land Use (RLHD)		29-Nov-21	29-Nov-21	29-Nov-21	29-Nov-21	29-Nov-21	29-Nov-21	29-Nov-21
Sample ID					n/v	n/v	n/v	n/v	BH21-08, SA01	BH21-08, SA02	BH21-08, SA04	BH21-09, SA01	BH21-09, SA02	BH21-09, SA04	BH21-09, SA04
Sample Depth									0.3 - 0.61 m	0.91 - 1.22 m	3.66 - 3.96 m	0.3 - 0.61 m	0.91 - 1.22 m	3.66 - 3.96 m	3.66 - 3.96 m
Sampling Company									STANTEC BV	STANTEC BV	STANTEC BV				
Laboratory									C195347 AMD918	C195347 AMD919	C195347 AMD921	C195347 AMD922	C195347 AMD923	C195347 AMD925	C195347 AMD925
Laboratory Work Order															
Laboratory Sample ID															
Sample Type															
<b>General Chemistry</b>															
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	21	18	3.8	14	18	4.1	-
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	n/v	49.6	45.6	-	46.7	49.2	35.1	-
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	n/v	5.65	5.35	-	10.8	10.9	6.34	6.28
<b>Soluble Parameters</b>															
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	372	353	-	100	169	351	-
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	n/v	56.8	52.4	-	125	21.3	76.8	-
<b>Calculated Parameters</b>															
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> <sup>A</sup> 350 <sup>B</sup> , N <sub>3</sub> <sup>B</sup> 100 <sup>C</sup> , N <sub>3</sub> <sup>C</sup> 600 <sup>D</sup> , N <sub>3</sub> <sup>D</sup>	1,000,000 <sup>E</sup> , N <sub>3</sub> <sup>E</sup> 2,500 <sup>F</sup> , N <sub>3</sub> <sup>F</sup> 100 <sup>G</sup> , N <sub>3</sub> <sup>G</sup> 600 <sup>H</sup> , N <sub>3</sub> <sup>H</sup>	1,000,000 <sup>I</sup> , N <sub>3</sub> <sup>I</sup> 2,500 <sup>J</sup> , N <sub>3</sub> <sup>J</sup> 100 <sup>K</sup> , N <sub>3</sub> <sup>K</sup> 600 <sup>L</sup> , N <sub>3</sub> <sup>L</sup>	1,000,000 <sup>M</sup> , N <sub>3</sub> <sup>M</sup> 350 <sup>N</sup> , N <sub>3</sub> <sup>N</sup> 100 <sup>O</sup> , N <sub>3</sub> <sup>O</sup> 600 <sup>P</sup> , N <sub>3</sub> <sup>P</sup>	1,000,000 <sup>Q</sup> , N <sub>3</sub> <sup>Q</sup> 2,500 <sup>R</sup> , N <sub>3</sub> <sup>R</sup> 100 <sup>S</sup> , N <sub>3</sub> <sup>S</sup> 600 <sup>T</sup> , N <sub>3</sub> <sup>T</sup>	184 <sup>CGOKOS</sup>	161 <sup>CGOKOS</sup>	-	-	46.7	83.3	123 <sup>CGOKOS</sup>	-	-
Sodium	mg/kg	1,000,000 <sup>A</sup> , N <sub>9</sub> <sup>A</sup> AD 200 <sup>B</sup> , N <sub>9</sub> <sup>B</sup> 15,000 <sup>C</sup> , N <sub>9</sub> <sup>C</sup>	1,000,000 <sup>E</sup> , N <sub>9</sub> <sup>E</sup> EH 1,000 <sup>F</sup> , N <sub>9</sub> <sup>F</sup> 15,000 <sup>G</sup> , N <sub>9</sub> <sup>G</sup>	1,000,000 <sup>I</sup> , N <sub>9</sub> <sup>I</sup> 1,000 <sup>J</sup> , N <sub>9</sub> <sup>J</sup> 15,000 <sup>K</sup> , N <sub>9</sub> <sup>K</sup>	1,000,000 <sup>M</sup> , N <sub>9</sub> <sup>M</sup> 200 <sup>N</sup> , N <sub>9</sub> <sup>N</sup> 15,000 <sup>O</sup> , N <sub>9</sub> <sup>O</sup>	1,000,000 <sup>Q</sup> , N <sub>9</sub> <sup>Q</sup> 1,000 <sup>R</sup> , N <sub>9</sub> <sup>R</sup> 15,000 <sup>S</sup> , N <sub>9</sub> <sup>S</sup>	28.2	23.9	-	-	58.6	10.5	27.0	-	-
<b>Petroleum Hydrocarbons</b>															
Benzene	mg/kg	150 <sup>A</sup> 100 <sup>B</sup> 0.035 <sup>C</sup> 2.5 <sup>D</sup>	1,000 <sup>E</sup> 250 <sup>F</sup> 0.035 <sup>G</sup> 2.5 <sup>H</sup>	6,500 <sup>I</sup> 250 <sup>J</sup> 0.035 <sup>K</sup> 2.5 <sup>L</sup>	150 <sup>M</sup> 100 <sup>N</sup> 0.035 <sup>O</sup> 2.5 <sup>P</sup>	350 <sup>Q</sup> 250 <sup>R</sup> 0.035 <sup>S</sup> 2.5 <sup>T</sup>	-	-	-	-	-	-	-	-	
Toluene	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 6.0 <sup>C</sup> , N <sub>2</sub> <sup>D</sup> 0.50 <sup>E</sup>	20,000 <sup>F</sup> 450 <sup>G</sup> 6.0 <sup>H</sup> , N <sub>2</sub> <sup>I</sup> 0.50 <sup>J</sup>	550,000 <sup>K</sup> 450 <sup>L</sup> 6.0 <sup>M</sup> , N <sub>2</sub> <sup>N</sup> 0.50 <sup>P</sup>	3,500 <sup>M</sup> 6.0 <sup>N</sup> , N <sub>2</sub> <sup>O</sup> 0.50 <sup>T</sup>	6,500 <sup>Q</sup> 450 <sup>R</sup> 6.0 <sup>S</sup> , N <sub>2</sub> <sup>T</sup>	-	-	-	-	-	-	-	-	
Ethylbenzene	mg/kg	4,000 <sup>A</sup> 200 <sup>B</sup> 15 <sup>C</sup>	25,000 <sup>E</sup> 650 <sup>F</sup> 15 <sup>G</sup> 200 <sup>H</sup>	700,000 <sup>I</sup> 650 <sup>J</sup> 15 <sup>K</sup> 200 <sup>L</sup>	4,000 <sup>M</sup> 200 <sup>N</sup> 15 <sup>O</sup> 20 <sup>P</sup>	8,500 <sup>Q</sup> 650 <sup>R</sup> 15 <sup>S</sup> 200 <sup>T</sup>	-	-	-	-	-	-	-	-	
Xylene, m & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-
Xylenes, Total	mg/kg	8,500 <sup>A</sup> 150 <sup>B</sup> 6.5 <sup>C</sup> 20 <sup>D</sup>	50,000 <sup>E</sup> 600 <sup>F</sup> 6.5 <sup>G</sup> 20 <sup>H</sup>	1,000,000 <sup>I</sup> 600 <sup>J</sup> 6.5 <sup>K</sup> 20 <sup>L</sup>	8,500 <sup>M</sup> 150 <sup>N</sup> 6.5 <sup>O</sup> 20 <sup>P</sup>	15,000 <sup>Q</sup> 600 <sup>R</sup> 6.5 <sup>S</sup> 20 <sup>T</sup>	-	-	-	-	-	-	-	-	
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	<100	<100	<100	<100	<100	<100
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	<100	<100	<100	<100	<100	<100
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	<100	<100	<100	<100	<100	<100
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<100	<100	<100	<100	<100	<100	<100
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-
<b>Metals</b>															
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	24,900	24,400	-	16,700	16,300	9,220	-
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	0.32	0.30	-	2.68	2.44	0.13	-
Arsenic	mg/kg	20 <sup>A</sup> 25 <sup>B</sup> 10 <sup>C</sup> CD	150 <sup>E</sup> 40 <sup>F</sup> 10 <sup>G</sup> GH	400 <sup>I</sup> 40 <sup>J</sup> 10 <sup>K</sup> KL	20 <sup>M</sup> 25 <sup>N</sup> 10 <sup>O</sup> OP	40 <sup>Q</sup> 25 <sup>R</sup> 10 <sup>S</sup> ST	5.11	5.07	-	7.11	6.32	1.61	-	-	
Barium	mg/kg	8,500 <sup>A</sup> 700 <sup>B</sup> 350 <sup>C</sup> 3,500 <sup>D</sup>	50,000 <sup>E</sup> 1,500 <sup>F</sup> 350 <sup>G</sup> 3,500 <sup>H</sup>	1,000,000 <sup>I</sup> 1,500 <sup>J</sup> 350 <sup>K</sup> 3,500 <sup>L</sup>	8,500 <sup>M</sup> 700 <sup>N</sup> 350 <sup>O</sup> 3,500 <sup>P</sup>	15,000 <sup>Q</sup> 1,500 <sup>R</sup> 350 <sup>S</sup> 3,500 <sup>T</sup>	159	101	-	156	112	35.2	-	-	
Beryllium	mg/kg	85 <sup>A</sup> 150 <sup>B</sup> 1.0-2,500 <sup>C</sup> PH1 <sup>D</sup> 1.0-500 <sup>E</sup> PH2 <sup>H</sup>	500 <sup>F</sup> 350 <sup>G</sup> 1.0-2,500 <sup>I</sup> PH1 <sup>J</sup> 1.0-500 <sup>K</sup> PH2 <sup>L</sup>	15,000 <sup>M</sup> 350 <sup>N</sup> 1.0-2,500 <sup>O</sup> PH1 <sup>P</sup> 1.0-500 <sup>R</sup> PH2 <sup>T</sup>	85 <sup>M</sup> 150 <sup>N</sup> 1.0-2,500 <sup>O</sup> PH1 <sup>P</sup> 1.0-500 <sup>R</sup> PH2 <sup>T</sup>	0.33	0.50	-	0.25	0.23	<0.20	-	-	-	
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	-	0.15	0.13	<0.10	-
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	3.7	4.0	-	11.4	9.3	1.9	-
Boron (Available)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	-	0.71	<0.10	<0.10	-
Cadmium	mg/kg	20 <sup>A</sup> 30 <sup>B</sup> 1.0-70 <sup>C</sup> PH6 <sup>D</sup> 1.0-50 <sup>E</sup> PH7 <sup>H</sup>	150 <sup>E</sup> 75 <sup>F</sup> 1.0-70 <sup>G</sup> PH6 <sup>I</sup> 1.0-50<sup												

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	CSR-Schedule 3.1						BH21-08	BH21-09	BH21-09	BH21-09	BH21-09	BH21-09	
		Agricultural	Commercial	Industrial	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)								
<b>Polycyclic Aromatic Hydrocarbons</b>														
Acenaphthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	<0.0050	<0.0050	-	<0.0050	<0.0050	
Acenaphthylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	<0.0050	<0.0050	-	<0.0050	<0.0050	
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>	75,000 <sup>E</sup> 30 <sup>F</sup>	1,000,000 <sup>I</sup> 30 <sup>J</sup>	10,000 <sup>M</sup> 2.5 <sup>N</sup>	25,000 <sup>O</sup> 30 <sup>R</sup>	<0.0040	-	<0.0040	<0.0040	-	<0.0040	<0.0040	
Benzo(a)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>	30 <sup>E</sup> 70 <sup>F</sup>	50 <sup>I</sup> 70 <sup>J</sup>	5.0 <sup>M</sup> 20 <sup>N</sup>	10 <sup>O</sup> 70 <sup>R</sup>	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Benzo(b)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Benzo(b)pyridine (Quinoline)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	<0.050	
Benzo(b,j)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	<0.050	
Benzo(k)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Chrysene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Dibenz(a,h)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>	10,000 <sup>E</sup> 200 <sup>F</sup>	300,000 <sup>I</sup> 200 <sup>J</sup>	1,500 <sup>M</sup> 50 <sup>N</sup>	3,500 <sup>O</sup> 200 <sup>R</sup>	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Fluorene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
High Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	-	
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Low Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	-	
Methylnaphthalene, 1-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	<0.050	
Methylnaphthalene, 2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>	5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>	150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>	850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>	1,500 <sup>Q</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	
Phenanthrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.010	-	<0.010	<0.010	-	<0.010	<0.010	
Pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	<0.020	<0.020	-	<0.020	<0.020	
Total PAH	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	<0.050	<0.050	-	<0.050	-	
<b>Volatile Organic Compounds</b>														
Bromobenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Bromodichloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Bromoform (Tribromomethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Bromomethane (Methyl bromide)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Chloroethane (Ethyl Chloride)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Chloroform (Trichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Chloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dibromochloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichlorobenzene, 1,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloroethane, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloroethane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloroethene, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloroethene, cis-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloroethene, trans-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloropropane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloropropene, 1,3- (sum of isomers cis + trans)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloropropene, cis-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Dichloropropene, trans-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Isopropylbenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Methylene Chloride (Dichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Styrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Tetrachloroethane, 1,1,2,2-	mg/kg	250 <sup>A</sup> 15 <sup>B</sup> 2.5 <sup>D</sup>	1,500 <sup>E</sup> 30 <sup>F</sup> 2.5 <sup>H</sup>	40,000 <sup>I</sup> 30 <sup>J</sup> 2.5 <sup>L</sup>	250 <sup>M</sup> 15 <sup>N</sup> 2.5 <sup>P</sup>	500 <sup>Q</sup> 30 <sup>R</sup> 2.5 <sup>T</sup>	-	-	-	-	-	-	-	-
Tetrachloroethene (PCE)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Trichlorobenzene, 1,2,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-	-	-	-	-	-
Trichlorobenzene, 1,2,4-	mg/kg	n/v	n/v	n/v	n/v									

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	Agricultural	Commercial	Industrial	CSR-Schedule 3.1	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)	BH21-10	29-Nov-21	29-Nov-21	29-Nov-21
Sample Date								BH21-10, SA01	BH21-10, SA02	BH21-10, SA02	
Sample ID								0.3 - 0.61 m	0.91 - 1.22 m	0.91 - 1.22 m	
Sample Depth								STANTEC	STANTEC	STANTEC	
Sampling Company								BV	BV	BV	
Laboratory								C195347	C195347	C195347	
Laboratory Work Order								AMD926	AMD927	AMD927	
Laboratory Sample ID											Lab Replicate
Sample Type											
<b>General Chemistry</b>											
Moisture Content	%	n/v	n/v	n/v	n/v	n/v	n/v	17	3.1	-	-
Percent Saturation	%	n/v	n/v	n/v	n/v	n/v	n/v	42.9	36.5	-	-
Soluble (2:1) pH	S.U.	n/v	n/v	n/v	n/v	n/v	n/v	5.99	5.76	5.75	
<b>Soluble Parameters</b>											
Chloride	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	195	175	-	-
Sodium	mg/L	n/v	n/v	n/v	n/v	n/v	n/v	24.0	31.0	-	-
<b>Calculated Parameters</b>											
Chloride	mg/kg	1,000,000 <sup>A</sup> , N <sub>3</sub> <sup>A</sup> 350 <sup>N<sub>3</sub></sup> <sup>B</sup> 100 <sup>N<sub>3</sub></sup> <sup>C</sup> 600 <sup>N<sub>3</sub></sup> <sup>D</sup>	1,000,000 <sup>E</sup> , N <sub>3</sub> <sup>E</sup> 2,500 <sup>N<sub>3</sub></sup> <sup>F</sup> 100 <sup>N<sub>3</sub></sup> <sup>G</sup> 600 <sup>N<sub>3</sub></sup> <sup>H</sup>	1,000,000 <sup>I</sup> , N <sub>3</sub> <sup>I</sup> 2,500 <sup>N<sub>3</sub></sup> <sup>J</sup> 100 <sup>N<sub>3</sub></sup> <sup>K</sup> 600 <sup>N<sub>3</sub></sup> <sup>L</sup>	1,000,000 <sup>M</sup> , N <sub>3</sub> <sup>M</sup> 350 <sup>N<sub>3</sub></sup> <sup>N</sup> 100 <sup>N<sub>3</sub></sup> <sup>O</sup> 600 <sup>N<sub>3</sub></sup> <sup>P</sup>	1,000,000 <sup>Q</sup> , N <sub>3</sub> <sup>Q</sup> 2,500 <sup>N<sub>3</sub></sup> <sup>R</sup> 100 <sup>N<sub>3</sub></sup> <sup>S</sup> 600 <sup>N<sub>3</sub></sup> <sup>T</sup>	83.5	64.1	-	-	-
Sodium	mg/kg	1,000,000 <sup>A</sup> , N <sub>9</sub> <sup>AD</sup> 200 <sup>N<sub>9</sub></sup> <sup>B</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>C</sup>	1,000,000 <sup>E</sup> , N <sub>9</sub> <sup>E</sup> 1,000 <sup>N<sub>9</sub></sup> <sup>F</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>G</sup>	1,000,000 <sup>I</sup> , N <sub>9</sub> <sup>I</sup> 1,000 <sup>N<sub>9</sub></sup> <sup>J</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>K</sup>	1,000,000 <sup>M</sup> , N <sub>9</sub> <sup>M</sup> 200 <sup>N<sub>9</sub></sup> <sup>N</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>O</sup>	1,000,000 <sup>Q</sup> , N <sub>9</sub> <sup>Q</sup> 1,000 <sup>N<sub>9</sub></sup> <sup>R</sup> 15,000 <sup>N<sub>9</sub></sup> <sup>S</sup>	10.3	11.3	-	-	-
<b>Petroleum Hydrocarbons</b>											
Benzene	mg/kg	150 <sup>A</sup> 100 <sup>B</sup> 0.035 <sup>C</sup> 2.5 <sup>D</sup>	1,000 <sup>E</sup> 250 <sup>F</sup> 0.035 <sup>G</sup> 2.5 <sup>H</sup>	6,500 <sup>I</sup> 250 <sup>J</sup> 0.035 <sup>K</sup> 2.5 <sup>L</sup>	150 <sup>M</sup> 100 <sup>N</sup> 0.035 <sup>O</sup> 2.5 <sup>P</sup>	350 <sup>Q</sup> 250 <sup>R</sup> 0.035 <sup>S</sup> 2.5 <sup>T</sup>	-	-	-	-	-
Toluene	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>C</sup> 0.50 <sup>D</sup>	20,000 <sup>E</sup> 450 <sup>F</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>G</sup> 0.50 <sup>H</sup>	550,000 <sup>I</sup> 450 <sup>J</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>K</sup> 0.50 <sup>L</sup>	3,500 <sup>M</sup> 150 <sup>N</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>O</sup> 0.50 <sup>P</sup>	6,500 <sup>Q</sup> 450 <sup>R</sup> 6.0 <sup>N<sub>2</sub></sup> <sup>S</sup> 0.50 <sup>T</sup>	-	-	-	-	-
Ethylbenzene	mg/kg	4,000 <sup>A</sup> 200 <sup>B</sup> 15 <sup>C</sup>	25,000 <sup>E</sup> 650 <sup>F</sup> 15 <sup>G</sup> 200 <sup>H</sup>	700,000 <sup>I</sup> 650 <sup>J</sup> 15 <sup>K</sup> 200 <sup>L</sup>	4,000 <sup>M</sup> 200 <sup>N</sup> 15 <sup>O</sup> 20 <sup>P</sup>	8,500 <sup>Q</sup> 650 <sup>R</sup> 15 <sup>S</sup> 200 <sup>T</sup>	-	-	-	-	-
Xylene, m & p-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-
Xylene, o-	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-
Xylenes, Total	mg/kg	8,500 <sup>A</sup> 150 <sup>B</sup> 6.5 <sup>C</sup> 20 <sup>D</sup>	50,000 <sup>E</sup> 600 <sup>F</sup> 6.5 <sup>G</sup> 20 <sup>H</sup>	1,000,000 <sup>I</sup> 600 <sup>J</sup> 6.5 <sup>K</sup> 20 <sup>L</sup>	8,500 <sup>M</sup> 150 <sup>N</sup> 6.5 <sup>O</sup> 20 <sup>P</sup>	15,000 <sup>Q</sup> 600 <sup>R</sup> 6.5 <sup>S</sup> 20 <sup>T</sup>	-	-	-	-	-
EPH C10-C19	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	-	-
EPH C19-C32	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	-	-
HEPH (C19-C32 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	-	-
LEPH (C10-C19 less PAH)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<100	-	-	-
VH (C6-C10)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-
VPH (C6-C10 Minus BTEX)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	-	-	-	-
<b>Metals</b>											
Aluminum	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	12,300	12,500	-	-
Antimony	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	0.14	0.15	-	-
Arsenic	mg/kg	20 <sup>A</sup> 25 <sup>B</sup> 10 <sup>CD</sup>	150 <sup>E</sup> 40 <sup>F</sup> 10 <sup>GH</sup>	400 <sup>I</sup> 40 <sup>J</sup> 10 <sup>KL</sup>	20 <sup>M</sup> 25 <sup>N</sup> 10 <sup>OP</sup>	40 <sup>QR</sup> 10 <sup>ST</sup>	2.70	2.31	-	-	-
Barium	mg/kg	8,500 <sup>A</sup> 700 <sup>B</sup> 350 <sup>C</sup> 3,500 <sup>D</sup>	50,000 <sup>E</sup> 1,500 <sup>F</sup> 350 <sup>G</sup> 3,500 <sup>H</sup>	1,000,000 <sup>I</sup> 1,500 <sup>J</sup> 350 <sup>K</sup> 3,500 <sup>L</sup>	8,500 <sup>M</sup> 700 <sup>N</sup> 350 <sup>O</sup> 3,500 <sup>P</sup>	15,000 <sup>Q</sup> 1,500 <sup>R</sup> 350 <sup>S</sup> 3,500 <sup>T</sup>	39.2	36.2	-	-	-
Beryllium	mg/kg	85 <sup>A</sup> 150 <sup>B</sup> 1.0-2,500 <sup>PH1</sup> <sup>C</sup> 1.0-500 <sup>PH2</sup> <sup>D</sup>	500 <sup>E</sup> 350 <sup>F</sup> 1.0-2,500 <sup>PH1</sup> <sup>G</sup> 1.0-500 <sup>PH2</sup> <sup>H</sup>	15,000 <sup>I</sup> 350 <sup>J</sup> 1.0-2,500 <sup>PH1</sup> <sup>K</sup> 1.0-500 <sup>PH2</sup> <sup>L</sup>	85 <sup>M</sup> 150 <sup>N</sup> 1.0-2,500 <sup>PH1</sup> <sup>O</sup> 1.0-500 <sup>PH2</sup> <sup>P</sup>	150 <sup>Q</sup> 150 <sup>R</sup> 1.0-2,500 <sup>PH1</sup> <sup>S</sup> 1.0-500 <sup>PH2</sup> <sup>T</sup>	<0.20	<0.20	-	-	-
Bismuth	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	-	-
Boron	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	1.7	2.4	-	-
Boron (Available)	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	<0.10	<0.10	-	-
Cadmium	mg/kg	20 <sup>A</sup> 30 <sup>B</sup> 1.0-70 <sup>H6</sup> <sup>C</sup> 1.0-50 <sup>PH7</sup> <sup>D</sup>	150 <sup>E</sup> 75 <sup>F</sup> 1.0-70 <sup>PH6</sup> <sup>G</sup> 1.0-50 <sup>PH7</sup> <sup>H</sup>	3,500 <sup>I</sup> 75 <sup>J</sup> 1.0-70 <sup>PH6</sup> <sup>K</sup> 1.0-50 <sup>PH7</sup> <sup>L</sup>	20 <sup>M</sup> 30 <sup>N</sup> 1.0-70 <sup>PH6</sup> <sup>O</sup> 1.0-50 <sup>PH7</sup> <sup>P</sup>	40 <sup>Q</sup> 75 <sup>R</sup> 1.0-70 <sup>PH6</sup> <sup>S</sup> 1.0-50 <sup>PH7</sup> <sup>T</sup>	0.055	0.061	-	-	-
Calcium	mg/kg	n/v	n/v	n/v	n/v	n/v	n/v	2,050	2,710	-	-
Chromium	mg/kg	100 <sup>N4</sup> <sup>A</sup> 200 <sup>N4</sup> <sup>B</sup> 60/1,000,000 <sup>N5,N6</sup> <sup>C</sup> 60/300,000 <sup>N5,N6</sup> <sup>D</sup>	750 <sup>N4</sup> <sup>E</sup> 250 <sup>N4</sup> <sup>F</sup> 60/1,000,000 <sup>N5,N6</sup> <sup>G</sup> 60/300,000 <sup>N5,N6</sup> <sup>H</sup>	20,000 <sup>N4</sup> <sup>I</sup> 250 <sup>N4</sup> <sup>J</sup> 60/1,000,000 <sup>N5,N6</sup> <sup>K</sup> 60/300,000 <sup>N5,N6</sup> <sup>L</sup>	100 <sup>N4</sup> <sup>M</sup> 200 <sup>N4</sup> <sup>N</sup> 60/1,000,000 <sup>N5,N6</sup> <sup>O</sup> 60/300,000 <sup>N5,N6</sup> <sup>P</sup>	250 <sup>N4</sup> <sup>QR</sup> 60/1,000,000 <sup>N5,N6</sup> <sup>S</sup> 60/300,000 <sup>N5,N6</sup> <sup>T</sup>	18.3	18.4	-	-	-
Chromium (Hexavalent)	mg/kg	60 <sup>N5</sup> <sup>CD</sup>	60 <sup>N5</sup> <sup>EF</sup>	2,000 <sup>I</sup> 200 <sup>J</sup> 25 <sup>KL</sup>	60 <sup>N5</sup> <sup>OP</sup>	25 <sup>QST</sup> 200 <sup>R</sup>	<0.080	<0.080	-	-	-
Cobalt	mg/kg	25 <sup>ACD</sup> 45 <sup>B</sup>	75 <sup>E</sup> 200 <sup>F</sup> 25 <sup>GH</sup>	700,000 <sup>I</sup> 300 <sup>J</sup> 500-100,000 <sup>PH30</sup> <sup>K</sup> 75-7,500 <sup>PH32</sup> <sup>L</sup>	3,500 <sup>M</sup> 150 <sup>N</sup> 500-100,000 <sup>PH30</sup> <sup>O</sup> 75-7,500 <sup>PH32</sup> <sup>P</sup>	7,500 <sup>Q</sup> 300 <sup>R</sup> 500-100,000 <sup>PH30</sup> <sup>S</sup> 75-7,500 <sup>PH32</sup> <sup>T</sup>	5.24	5.14	-	-	-
Copper	mg/kg	3,500 <sup>A</sup> 150 <sup>B</sup> 500-100,000 <sup>PH30</sup> <sup>C</sup> 75-7,500 <sup>PH32</sup> <sup>D</sup>	25,000 <sup>E</sup> 300 <sup>F</sup> 500-100,000 <sup>PH30</sup> <sup>G</sup> 75-7,500 <sup>PH32</sup> <sup>H</sup>	700,000 <sup>I</sup> 300 <sup>J</sup> 500-100,000<							

**Table B1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

Sample Location	Units	Agricultural	Commercial	CSR-Schedule 3.1 Industrial	Residential Low Density Land Use (RLLD)	Residential High Density Land Use (RLHD)	BH21-10 29-Nov-21 BH21-10, SA01	BH21-10 29-Nov-21 BH21-10, SA02	BH21-10 29-Nov-21 BH21-10, SA02
<b>Polycyclic Aromatic Hydrocarbons</b>									
Acenaphthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	-
Acenaphthylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.0050	-	-
Anthracene	mg/kg	10,000 <sup>A</sup> 2.5 <sup>B</sup>	75,000 <sup>E</sup> 30 <sup>F</sup>	1,000,000 <sup>I</sup> 30 <sup>J</sup>	10,000 <sup>M</sup> 2.5 <sup>N</sup>	25,000 <sup>O</sup> 30 <sup>R</sup>	<0.0040	-	-
Benzo(a)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Benzo(a)pyrene	mg/kg	5.0 <sup>A</sup> 20 <sup>B</sup>	30 <sup>E</sup> 70 <sup>F</sup>	50 <sup>I</sup> 70 <sup>J</sup>	5.0 <sup>H</sup> 20 <sup>N</sup>	10 <sup>O</sup> 70 <sup>R</sup>	<0.020	-	-
Benzo(b)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Benzo(b)pyridine (Quinoline)	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	-
Benzo(b,j)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Benzo(g,h,i)perylene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	-
Benzo(k)fluoranthene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Chrysene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Dibenz(a,h)anthracene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Fluoranthene	mg/kg	1,500 <sup>A</sup> 50 <sup>B</sup>	10,000 <sup>E</sup> 200 <sup>F</sup>	300,000 <sup>I</sup> 200 <sup>J</sup>	1,500 <sup>M</sup> 200 <sup>N</sup>	3,500 <sup>O</sup> 200 <sup>R</sup>	<0.020	-	-
Fluorene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
High Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Low Molecular Weight PAHs	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.16	-	-
Methylnaphthalene, 1-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.050	-	-
Methylnaphthalene, 2-	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Naphthalene	mg/kg	850 <sup>A</sup> 0.60 <sup>B</sup> 100 <sup>C</sup> 75 <sup>D</sup>	5,000 <sup>E</sup> 20 <sup>F</sup> 100 <sup>G</sup> 75 <sup>H</sup>	150,000 <sup>I</sup> 20 <sup>J</sup> 100 <sup>K</sup> 75 <sup>L</sup>	850 <sup>M</sup> 0.60 <sup>N</sup> 100 <sup>O</sup> 75 <sup>P</sup>	1,500 <sup>Q</sup> 20 <sup>R</sup> 100 <sup>S</sup> 75 <sup>T</sup>	<0.010	-	-
Phenanthrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.010	-	-
Pyrene	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.020	-	-
Total PAH	mg/kg	n/v	n/v	n/v	n/v	n/v	<0.16	-	-
<b>Volatile Organic Compounds</b>									
Bromobenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Bromodichloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Bromoform (Tribromomethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Bromomethane (Methyl bromide)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Carbon Tetrachloride (Tetrachloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Chlorobenzene (Monochlorobenzene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Chloroethane (Ethyl Chloride)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Chloroform (Trichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Chloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dibromochloromethane	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichlorobenzene, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichlorobenzene, 1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichlorobenzene, 1,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloroethane, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloroethane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloroethene, 1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloroethene, cis-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloroethene, trans-1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloropropane, 1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloropropene, 1,3- (sum of isomers cis + trans)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloropropene, cis-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Dichloropropene, trans-1,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Ethylene Dibromide (Dibromoethane, 1,2-)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Hexachlorobutadiene (Hexachloro-1,3-butadiene)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Isopropylbenzene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Methyl tert-butyl ether (MTBE)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Methylene Chloride (Dichloromethane)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Styrene	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Tetrachloroethane, 1,1,1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Tetrachloroethane, 1,1,2,2-	mg/kg	250 <sup>A</sup> 15 <sup>B</sup> 2.5 <sup>D</sup>	1,500 <sup>E</sup> 30 <sup>F</sup> 2.5 <sup>H</sup>	40,000 <sup>I</sup> 30 <sup>J</sup> 2.5 <sup>L</sup>	250 <sup>M</sup> 15 <sup>N</sup> 2.5 <sup>P</sup>	500 <sup>Q</sup> 30 <sup>R</sup> 2.5 <sup>T</sup>	-	-	-
Tetrachloroethene (PCE)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trichlorobenzene, 1,2,3-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trichlorobenzene, 1,2,4-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trichloroethane, 1,1,1-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trichloroethane, 1,1,2-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trichloroethene (TCE)	mg/kg	20 <sup>A</sup> 15 <sup>B</sup> 0.30 <sup>D</sup>	150 <sup>E</sup> 25 <sup>F</sup> 0.30 <sup>H</sup>	3,500 <sup>I</sup> 25 <sup>J</sup> 0.30 <sup>L</sup>	20 <sup>M</sup> 15 <sup>N</sup> 0.30 <sup>P</sup>	40 <sup>Q</sup> 25 <sup>R</sup> 0.30 <sup>T</sup>	-	-	-
Trichlorofluoromethane (Freon 11)	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Trimethylbenzene, 1,3,5-	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-
Vinyl Chloride	mg/kg	n/v	n/v	n/v	n/v	n/v	-	-	-

See notes on last page.

**Table 1**  
**Summary of Soil Analytical Results**  
**Soil Assessment**  
**19085 119B Avenue, Pitt Meadows, BC**  
**Metro Vancouver Housing Corporation**

**Notes**

CSR-Schedule 3.1	CSR Schedule 3.1 - Part 1,2 & 3 (Contaminated Sites Regulation [B.C. Reg. 375/96, April 1, 1997: includes amendments up to B.C. Reg. 64/2021, March 11, 2021])
A	Part 1 Matrix Standard - Agricultural Land Use (AL) - Intake of contaminated soil (applicable to all sites)
B	Part 1 Matrix Standard - Agricultural Land Use (AL) - Toxicity to soil invertebrates and plants (applicable to all sites)
C	Part 1 Matrix Standard - Agricultural Land Use (AL) - Groundwater used for drinking water
D	Part 1 Matrix Standard - Agricultural Land Use (AL) - Groundwater flow to surface water used by aquatic life (freshwater)
E	Part 1 Matrix Standard - Commercial Land Use (CL) - Intake of contaminated soil (applicable to all sites)
F	Part 1 Matrix Standard - Commercial Land Use (CL) - Toxicity to soil invertebrates and plants (applicable to all sites)
G	Part 1 Matrix Standard - Commercial Land Use (CL) - Groundwater used for drinking water
H	Part 1 Matrix Standard - Commercial Land Use (CL) - Groundwater flow to surface water used by aquatic life (freshwater)
I	Part 1 Matrix Standard - Industrial Land Use (IL) - Intake of contaminated soil (applicable to all sites)
J	Part 1 Matrix Standard - Industrial Land Use (IL) - Toxicity to soil invertebrates and plants (applicable to all sites)
K	Part 1 Matrix Standard - Industrial Land Use (IL) - Groundwater used for drinking water
L	Part 1 Matrix Standard - Industrial Land Use (IL) - Groundwater flow to surface water used by aquatic life (freshwater)
M	Part 1 Matrix Standard - Residential Low Density Land Use (RLLD) - Intake of contaminated soil (applicable to all sites)
N	Part 1 Matrix Standard - Residential Low Density Land Use (RLLD) - Toxicity to soil invertebrates and plants (applicable to all sites)
O	Part 1 Matrix Standard - Residential Low Density Land Use (RLLD) - Groundwater used for drinking water
P	Part 1 Matrix Standard - Residential Low Density Land Use (RLLD) - Groundwater flow to surface water used by aquatic life (freshwater)
Q	Part 1 Matrix Standard - Residential High Density Land Use (RLHD) - Intake of contaminated soil (applicable to all sites)
R	Part 1 Matrix Standard - Residential High Density Land Use (RLHD) - Toxicity to soil invertebrates and plants (applicable to all sites)
S	Part 1 Matrix Standard - Residential High Density Land Use (RLHD) - Groundwater used for drinking water
T	Part 1 Matrix Standard - Residential High Density Land Use (RLHD) - Groundwater flow to surface water used by aquatic life (freshwater)
<b>6.5<sup>A</sup></b>	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.
N2	Soil standards protective of groundwater used for drinking water are the same regardless of land use.
N3	Chloride ion standards apply to soluble chloride.
N4	Standard applies to total chromium (all species).
N5	Standard applies to hexavalent chromium (Cr6+).
N5,N6	N5 - Standard applies to hexavalent chromium (Cr6+) / N6 - Standard applies to trivalent chromium (Cr3+)
N9	Sodium ion standards apply to soluble sodium.
PH1	Beryllium standards vary with soil pH from 1-2,500 ug/g for groundwater used for drinking water for all land use types. For pH < 5.5 standard = 1 ug/g; For pH 5.5-< 6.0 standard = 1.5; For pH 6.0-< 6.5 standard = 4 ug/g; For pH 6.5-> 7.0 standard = 20 ug/g; For pH 7.0-> 7.5 standard = 150 ug/g; For pH 7.5-> 8.0 standard = 1,000 ug/g; For pH ≥ 8.0 standard = 2,500 ug/g. Consult CSR Schedule 3.1.1, Matrix 6.
PH2	Beryllium standards vary with soil pH from 1-500 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 6.5 standard = 1 ug/g; For pH 6.5-< 7.0 standard = 4 ug/g; For pH 7.0-> 7.5 standard = 30 ug/g; For pH 7.5-> 8.0 standard = 250 ug/g; For pH ≥ 8.0 standard = 500 ug/g. Consult CSR Schedule 3.1.1, Matrix 6.
PH6	Cadmium standards vary with soil pH from 1-70 ug/g for groundwater used for drinking water for all land use types. For pH < 7.0 standard = 1 ug/g; For pH 7.0-> 7.5 standard = 4.5 ug/g; For pH 7.5-> 8.0 standard = 30 ug/g; For pH ≥ 8.0 standard = 70 ug/g. Consult CSR Schedule 3.1.1, Matrix 7.
PH7	Cadmium standards vary with soil pH from 1-50 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 7.0 standard = 1 ug/g; For pH 7.0-> 7.5 standard = 3 ug/g; For pH 7.5-> 8.0 standard = 20 ug/g; For pH ≥ 8.0 standard = 50 ug/g. Consult CSR Schedule 3.1.1, Matrix 7.
PH11	Lead standards vary with soil pH from 120-8,500 ug/g for groundwater used for drinking water for all land use types. For pH < 5.5 standard = 120 ug/g; For pH 5.5-< 6.0 standard = 150 ug/g; For pH 6.0-< 6.5 standard = 800 ug/g; For pH 6.5-< 7.0 standard = 3,500 ug/g; For pH 7.0-< 7.5 standard = 7,500 ug/g; For pH ≥ 7.5 standard = 8,500 ug/g. Consult CSR Schedule 3.1.1, Matrix 18.
PH12	Lead standards vary with soil pH from 200-90,000 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 5.0 standard = 200 ug/g; For pH 5.0-< 5.5 standard = 350 ug/g; For pH 5.5-< 6.0 standard = 1,500 ug/g; For pH 6.0-< 6.5 standard = 8,500 ug/g; For pH 6.5-< 7.0 standard = 35,000 ug/g; For pH 7.0-> 7.5 standard = 80,000 ug/g; For pH ≥ 7.5 standard = 90,000 ug/g. Consult CSR Schedule 3.1.1, Matrix 18.
PH16	Nickel standards vary with soil pH from 70-500 ug/g for groundwater used for drinking water for all land use types. For pH < 7.5 standard = 70 ug/g; For pH 7.5-> 8.0 standard = 250 ug/g; For pH ≥ 8.0 standard = 500 ug/g. Consult CSR Schedule 3.1.1, Matrix 24.
PH17	Nickel standards vary with soil pH from 90-9,500 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 5.0 standard = 90 ug/g; For pH 5.0-< 5.5 standard = 100 ug/g; For pH 5.5-< 6.0 standard = 150 ug/g; For pH 6.0-< 6.5 standard = 200 ug/g; For pH 6.5-< 7.0 standard = 300 ug/g; For pH 7.0-> 7.5 standard = 900 ug/g; For pH 7.5-> 8.0 standard = 5,000 ug/g; For pH ≥ 8.0 standard = 9,500 ug/g. Consult CSR Schedule 3.1.1, Matrix 24.
PH25	Zinc standards vary with soil pH from 200-5,500 ug/g for groundwater used for drinking water for all land use types. For pH < 5.0 standard = 200 ug/g; For pH 5.0-< 5.5 standard = 250 ug/g; For pH 5.5-< 6.0 standard = 300 ug/g; For pH 6.0-< 6.5 standard = 450 ug/g; For pH 6.5-< 7.0 standard = 600 ug/g; For pH 7.0-> 7.5 standard = 1,000 ug/g; For pH 7.5-> 8.0 standard = 3,000 ug/g; For pH ≥ 8.0 standard = 5,500 ug/g. Consult CSR Schedule 3.1.1, Matrix 40.
PH26	Zinc standards vary with soil pH from 150-3,000 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 6.0 standard = 150 ug/g; For pH 6.0-< 6.5 standard = 250 ug/g; For pH 6.5-< 7.0 standard = 350 ug/g; For pH 7.0-> 7.5 standard = 600 ug/g; For pH 7.5-> 8.0 standard = 1,500 ug/g; For pH ≥ 8.0 standard = 3,000 ug/g. Consult CSR Schedule 3.1.1, Matrix 40.
PH30	Copper standards vary with soil pH from 250-100,000 ug/g for groundwater used for drinking water for all land use types. For pH < 5.0 standard = 250 ug/g; For pH 5.0-< 5.5 standard = 500 ug/g; For pH 5.5-< 6.0 standard = 2,000 ug/g; For pH 6.0-< 6.5 standard = 10,000 ug/g; For pH 6.5-< 7.0 standard = 50,000 ug/g; For pH ≥ 7.0 standard = 100,000 ug/g. Consult CSR Schedule 3.1.1, Matrix 11.
PH32	Copper standards vary with soil pH from 75-7,500 ug/g for groundwater flow to surface water used by aquatic life (freshwater) for all land use types. For pH < 5.5 standard = 75 ug/g; For pH 5.5-< 6.0 standard = 100 ug/g; For pH 6.0-< 6.5 standard = 700 ug/g; For pH 6.5-< 7.0 standard = 3,000 ug/g; For pH 7.0-< 7.5 standard = 6,500 ug/g; For pH ≥ 7.5 standard = 7,500 ug/g. Consult CSR Schedule 3.1.1, Matrix 11.
ACL	Duplicate RPD above control limit - Non-homogenous sample - Increased variability of results.
EJ	Matrix Spike outside acceptance criteria due to sample matrix interference.
LT	Duplicate detection limits raised due to matrix interference.
RPD	Relative Percent Difference.
<b>61%</b>	RPD exceeds data quality objective of 20%.
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.

**APPENDIX D**  
**LABORATORY ANALYTICAL**  
**CERTIFICATES**

## **Appendix D    LABORATORY ANALYTICAL CERTIFICATES**





BUREAU  
VERITAS

Your Project #: 123315738  
Site Location: 19125 1198 AVE, Pitt Meadows  
Your C.O.C. #: G160377

**Attention: Greg Hustler**

STANTEC CONSULTING LTD  
Metrotower III  
Suite 500, 4730 Kingsway  
BURNABY, BC  
CANADA V5H 4M1

**Report Date: 2022/01/12**

Report #: R3120944

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195347**

Received: 2021/11/29, 17:15

Sample Matrix: Soil

# Samples Received: 11

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble) (1)	10	2022/01/04	2022/01/04	AB SOP-00034 / AB SOP-00042	EPA 6010d R5 m
Chloride (soluble)	10	2021/12/06	2021/12/07	BBY6SOP-00011	SM 23 4500-Cl- E m
Soluble Chloride Ion Calc. (mg/kg)	9	N/A	2021/12/24	BBY WI-00033	Auto Calc
Soluble Chloride Ion Calc. (mg/kg)	1	N/A	2022/01/12	BBY WI-00033	Auto Calc
Hexavalent Chromium (1, 2)	10	2021/12/07	2021/12/07	AB SOP-00063	SM 23 3500-Cr B m
Elements by ICPMS (total)	5	2021/12/06	2021/12/06	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Elements by ICPMS (total)	4	2021/12/30	2021/12/30	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Elements by ICPMS (total)	1	2021/12/30	2021/12/31	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Moisture (1)	5	N/A	2022/01/10	AB SOP-00002	CCME PHC-CWS m
Moisture	4	2021/12/29	2021/12/29	BBY8SOP-00017	BCMOE BCLM Dec2000 m
Moisture	2	2021/12/29	2021/12/30	BBY8SOP-00017	BCMOE BCLM Dec2000 m
Soluble Sodium Ion Calc. (mg/kg)	9	N/A	2021/12/29	BBY WI-00033	Auto Calc
Soluble Sodium Ion Calc. (mg/kg)	1	N/A	2022/01/12	BBY WI-00033	Auto Calc
PAH in Soil by GC/MS (SIM)	4	2021/12/03	2021/12/03	BBY8SOP-00022	BCMOE BCLM Jul2017m
PAH in Soil by GC/MS (SIM)	2	2021/12/29	2021/12/30	BBY8SOP-00022	BCMOE BCLM Jul2017m
Total PAH and B(a)P Calculation (3)	4	N/A	2021/12/29	BBY WI-00033	Auto Calc
Total PAH and B(a)P Calculation (3)	2	N/A	2021/12/31	BBY WI-00033	Auto Calc
pH (2:1 DI Water Extract)	5	2021/12/30	2021/12/30	BBY6SOP-00028	BCMOE BCLM Mar2005 m
pH (2:1 DI Water Extract)	5	2021/12/31	2021/12/31	BBY6SOP-00028	BCMOE BCLM Mar2005 m
Saturated Paste	10	2021/12/24	2021/12/24	BBY6SOP-00030	BC Lab Manual 2015 m
Soluble Cations (Ca,K,Mg,Na,S)	10	N/A	2021/12/07	BBY7SOP-00018 / BBY7SOP-00030 / BCLM Nov 2015	EPA 6010d m
EPH less PAH in Soil By GC/FID (4)	4	N/A	2021/12/29	BBY WI-00033	Auto Calc
EPH less PAH in Soil By GC/FID (4)	2	N/A	2021/12/31	BBY WI-00033	Auto Calc
EPH in Soil by GC/FID	4	2021/12/03	2021/12/03	BBY8SOP-00029	BCMOE BCLM Dec2016 m
EPH in Soil by GC/FID	2	2021/12/29	2021/12/30	BBY8SOP-00029	BCMOE BCLM Dec2016 m



BUREAU  
VERITAS

Your Project #: 123315738  
Site Location: 19125 1198 AVE, Pitt Meadows  
Your C.O.C. #: G160377

**Attention: Greg Hustler**

STANTEC CONSULTING LTD  
Metrotower III  
Suite 500, 4730 Kingsway  
BURNABY, BC  
CANADA V5H 4M1

**Report Date: 2022/01/12**

Report #: R3120944

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195347**

**Received: 2021/11/29, 17:15**

**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.

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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) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8

(2) Some soil samples may react with the Cr(VI) spike reducing it to Cr(III). These samples are highly unlikely to contain native hexavalent chromium. Thus a failed spike recovery does not invalidate a negative result on the native sample.

(3) Total PAHs in Soil include: Quinoline, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Acridine, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b&j)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene.

Total PAHs in Sediment include (B.C. Reg. 116/2018, Schedule 3.4): Naphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, and Dibenz(a,h)anthracene.

(4) LEPH = EPH (C10 to C19) - (Naphthalene + Phenanthrene)

HEPH = EPH (C19 to C32) - (Benzo(a)anthracene + Benzo(a)pyrene + Benzo(b)fluoranthene + Benzo(k)fluoranthene + Dibenz(a,h)anthracene + Indeno(1,2,3-cd)pyrene + Pyrene)



BUREAU  
VERITAS

Your Project #: 123315738  
Site Location: 19125 1198 AVE, PITT MEADOWS  
Your C.O.C. #: G160377

**Attention: Greg Hustler**

STANTEC CONSULTING LTD  
Metrotower III  
Suite 500, 4730 Kingsway  
BURNABY, BC  
CANADA V5H 4M1

**Report Date:** 2022/01/12  
**Report #:** R3120944  
**Version:** 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195347**

**Received: 2021/11/29, 17:15**

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Geraldyn Gouthro, Key Account Specialist  
Email: geraldyn.gouthro@bureauveritas.com  
Phone# (780)577-7173

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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.



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### RESULTS OF CHEMICAL ANALYSES OF SOIL

Bureau Veritas ID		AMD913	AMD913	AMD914	AMD916	AMD918			
Sampling Date		2021/11/29 09:00	2021/11/29 09:00	2021/11/29 09:00	2021/11/29 09:00	2021/11/29 11:00			
COC Number		G160377	G160377	G160377	G160377	G160377			
	UNITS	BH21-07, SA01 Lab-Dup	BH21-07, SA02	BH21-07, SA04	BH21-08, SA01	RDL	QC Batch	MDL	

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A463491	N/A
Hex. Chromium (Cr 6+)	mg/kg	<0.080	<0.080	<0.080	<0.080	<0.080	0.080	A463917	0.080

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

Bureau Veritas ID		AMD919		AMD922		AMD923	AMD925		
Sampling Date		2021/11/29 11:00		2021/11/29 12:30		2021/11/29 12:30	2021/11/29 12:30		
COC Number		G160377		G160377		G160377	G160377		
	UNITS	BH21-08, SA02	RDL	BH21-09, SA01	RDL	BH21-09, SA02	BH21-9, SA04	RDL	QC Batch

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.10	0.71	0.10	<0.10	<0.10	0.10	A463491	N/A
Hex. Chromium (Cr 6+)	mg/kg	<0.080	0.080	<0.40 (1)	0.40	<0.080	<0.080	0.080	A463917	0.080

RDL = Reportable Detection Limit

N/A = Not Applicable

(1) Detection limits raised due to matrix interference.

Bureau Veritas ID		AMD926	AMD927			
Sampling Date		2021/11/29 14:30	2021/11/29 14:30			
COC Number		G160377	G160377			
	UNITS	BH21-10, SA01	BH21-10, SA02	RDL	QC Batch	MDL

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	<0.10	0.10	A463491	N/A
Hex. Chromium (Cr 6+)	mg/kg	<0.080	<0.080	0.080	A463917	0.080

RDL = Reportable Detection Limit

N/A = Not Applicable



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### PHYSICAL TESTING (SOIL)

Bureau Veritas ID		AMD913	AMD914		AMD916	AMD916	AMD918			
Sampling Date		2021/11/29 09:00	2021/11/29 09:00		2021/11/29 09:00	2021/11/29 09:00	2021/11/29 11:00			
COC Number		G160377	G160377		G160377	G160377	G160377			
	UNITS	BH21-07, SA01	BH21-07, SA02	QC Batch	BH21-07, SA04	BH21-07, SA04 Lab-Dup	BH21-08, SA01	RDL	QC Batch	MDL

#### Physical Properties

Moisture	%	23	22	A467101	18	15	21	0.30	A456312	N/A
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RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

Bureau Veritas ID		AMD919		AMD921		AMD922				
Sampling Date		2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30				
COC Number		G160377		G160377		G160377				
	UNITS	BH21-08, SA02	QC Batch	BH21-08, SA04	QC Batch	BH21-09, SA01	RDL	QC Batch	MDL	

#### Physical Properties

Moisture	%	18	A467101	3.8	A460366	14	0.30	A456312	N/A
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RDL = Reportable Detection Limit

N/A = Not Applicable

Bureau Veritas ID		AMD923		AMD925		AMD926				
Sampling Date		2021/11/29 12:30		2021/11/29 12:30		2021/11/29 14:30				
COC Number		G160377		G160377		G160377				
	UNITS	BH21-09, SA02	QC Batch	BH21-9, SA04	QC Batch	BH21-10, SA01	RDL	QC Batch	MDL	

#### Physical Properties

Moisture	%	18	A467101	4.1	A460366	17	0.30	A456312	N/A
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RDL = Reportable Detection Limit

N/A = Not Applicable



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### PHYSICAL TESTING (SOIL)

Bureau Veritas ID		AMD927			
Sampling Date		2021/11/29 14:30			
COC Number		G160377			
	UNITS	BH21-10, SA02	RDL	QC Batch	MDL
<b>Physical Properties</b>					
Moisture	%	3.1	0.30	A467101	N/A
RDL = Reportable Detection Limit					
N/A = Not Applicable					



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AMD916	AMD918		AMD921		AMD922			
Sampling Date		2021/11/29 09:00	2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30			
COC Number		G160377	G160377		G160377		G160377			
	UNITS	BH21-07, SA04	BH21-08, SA01	QC Batch	BH21-08, SA04	QC Batch	BH21-09, SA01	RDL	QC Batch	MDL

#### Calculated Parameters

Low Molecular Weight PAH's	mg/kg	<0.050	<0.050	A455874	<0.050	A455874	<0.050	0.050	A455874	0.010
High Molecular Weight PAH's	mg/kg	<0.050	<0.050	A455874	<0.050	A455874	<0.050	0.050	A455874	0.020
Total PAH	mg/kg	<0.050	<0.050	A455874	<0.050	A455874	<0.050	0.050	A455874	0.020

#### Polycyclic Aromatics

Quinoline	mg/kg	<0.050	<0.050	A439726	<0.050	A461320	<0.050	0.050	A439726	0.050
Naphthalene	mg/kg	<0.010	<0.010	A439726	<0.010	A461320	<0.010	0.010	A439726	0.010
1-Methylnaphthalene	mg/kg	<0.050	<0.050	A439726	<0.050	A461320	<0.050	0.050	A439726	0.050
2-Methylnaphthalene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Acenaphthylene	mg/kg	<0.0050	<0.0050	A439726	<0.0050	A461320	<0.0050	0.0050	A439726	0.0050
Acenaphthene	mg/kg	<0.0050	<0.0050	A439726	<0.0050	A461320	<0.0050	0.0050	A439726	0.0050
Fluorene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Phenanthrene	mg/kg	<0.010	<0.010	A439726	<0.010	A461320	<0.010	0.010	A439726	0.010
Anthracene	mg/kg	<0.0040	<0.0040	A439726	<0.0040	A461320	<0.0040	0.0040	A439726	0.0040
Fluoranthene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Pyrene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(a)anthracene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Chrysene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(b&j)fluoranthene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(b)fluoranthene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(k)fluoranthene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(a)pyrene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Dibenz(a,h)anthracene	mg/kg	<0.020	<0.020	A439726	<0.020	A461320	<0.020	0.020	A439726	0.020
Benzo(g,h,i)perylene	mg/kg	<0.050	<0.050	A439726	<0.050	A461320	<0.050	0.050	A439726	0.050

#### Calculated Parameters

LEPH (C10-C19 less PAH)	mg/kg	<100	<100	A455875	<100	A455875	<100	100	A455875	100
HEPH (C19-C32 less PAH)	mg/kg	<100	<100	A455875	<100	A455875	<100	100	A455875	100

#### Hydrocarbons

EPH (C10-C19)	mg/kg	<100	<100	A439727	<100	A461314	<100	100	A439727	100
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RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

**LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)**

Bureau Veritas ID		AMD916	AMD918		AMD921		AMD922			
Sampling Date		2021/11/29 09:00	2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30			
COC Number		G160377	G160377		G160377		G160377			
	UNITS	<b>BH21-07, SA04</b>	<b>BH21-08, SA01</b>	QC Batch	<b>BH21-08, SA04</b>	QC Batch	<b>BH21-09, SA01</b>	RDL	QC Batch	MDL
EPH (C19-C32)	mg/kg	<100	<100	A439727	<100	A461314	<100	100	A439727	100
<b>Surrogate Recovery (%)</b>										
D10-ANTHRACENE (sur.)	%	83	83	A439726	93	A461320	81		A439726	
D8-ACENAPHTHYLENE (sur.)	%	84	82	A439726	89	A461320	82		A439726	
D8-NAPHTHALENE (sur.)	%	76	75	A439726	84	A461320	74		A439726	
TERPHENYL-D14 (sur.)	%	86	86	A439726	102	A461320	86		A439726	
O-TERPHENYL (sur.)	%	90	88	A439727	104	A461314	87		A439727	

RDL = Reportable Detection Limit



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AMD925				AMD925			
Sampling Date		2021/11/29 12:30				2021/11/29 12:30			
COC Number		G160377				G160377			
	UNITS	BH21-9, SA04	RDL	QC Batch	MDL	BH21-9, SA04 Lab-Dup	RDL	QC Batch	MDL

#### Calculated Parameters

Low Molecular Weight PAH's	mg/kg	<0.050	0.050	A455874	0.010				
High Molecular Weight PAH's	mg/kg	<0.050	0.050	A455874	0.020				
Total PAH	mg/kg	<0.050	0.050	A455874	0.020				

#### Polycyclic Aromatics

Quinoline	mg/kg	<0.050	0.050	A461320	0.050	<0.050	0.050	A461320	0.050
Naphthalene	mg/kg	<0.010	0.010	A461320	0.010	<0.010	0.010	A461320	0.010
1-Methylnaphthalene	mg/kg	<0.050	0.050	A461320	0.050	<0.050	0.050	A461320	0.050
2-Methylnaphthalene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Acenaphthylene	mg/kg	<0.0050	0.0050	A461320	0.0050	<0.0050	0.0050	A461320	0.0050
Acenaphthene	mg/kg	<0.0050	0.0050	A461320	0.0050	<0.0050	0.0050	A461320	0.0050
Fluorene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Phenanthrene	mg/kg	<0.010	0.010	A461320	0.010	<0.010	0.010	A461320	0.010
Anthracene	mg/kg	<0.0040	0.0040	A461320	0.0040	<0.0040	0.0040	A461320	0.0040
Fluoranthene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Pyrene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(a)anthracene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Chrysene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(b&j)fluoranthene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(b)fluoranthene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(k)fluoranthene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(a)pyrene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Dibenz(a,h)anthracene	mg/kg	<0.020	0.020	A461320	0.020	<0.020	0.020	A461320	0.020
Benzo(g,h,i)perylene	mg/kg	<0.050	0.050	A461320	0.050	<0.050	0.050	A461320	0.050

#### Calculated Parameters

LEPH (C10-C19 less PAH)	mg/kg	<100	100	A455875	100				
HEPH (C19-C32 less PAH)	mg/kg	<100	100	A455875	100				

#### Hydrocarbons

EPH (C10-C19)	mg/kg	<100	100	A461314	100	<100	100	A461314	100
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RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AMD925				AMD925			
Sampling Date		2021/11/29 12:30				2021/11/29 12:30			
COC Number		G160377				G160377			
	UNITS	BH21-9, SA04	RDL	QC Batch	MDL	BH21-9, SA04 Lab-Dup	RDL	QC Batch	MDL
EPH (C19-C32)	mg/kg	<100	100	A461314	100	<100	100	A461314	100
<b>Surrogate Recovery (%)</b>									
D10-ANTHRACENE (sur.)	%	95		A461320		97		A461320	
D8-ACENAPHTHYLENE (sur.)	%	90		A461320		93		A461320	
D8-NAPHTHALENE (sur.)	%	86		A461320		87		A461320	
TERPHENYL-D14 (sur.)	%	103		A461320		104		A461320	
O-TERPHENYL (sur.)	%	104		A461314		103		A461314	
RDL = Reportable Detection Limit									
Lab-Dup = Laboratory Initiated Duplicate									



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AMD926			
Sampling Date		2021/11/29 14:30			
COC Number		G160377			
	UNITS	BH21-10, SA01	RDL	QC Batch	MDL
<b>Calculated Parameters</b>					
Low Molecular Weight PAH's	mg/kg	<0.16	0.16	A455874	0.010
High Molecular Weight PAH's	mg/kg	<0.050	0.050	A455874	0.020
Total PAH	mg/kg	<0.16	0.16	A455874	0.020
<b>Polycyclic Aromatics</b>					
Quinoline	mg/kg	<0.050	0.050	A439726	0.050
Naphthalene	mg/kg	<0.010	0.010	A439726	0.010
1-Methylnaphthalene	mg/kg	<0.050	0.050	A439726	0.050
2-Methylnaphthalene	mg/kg	<0.020	0.020	A439726	0.020
Acenaphthylene	mg/kg	<0.0050	0.0050	A439726	0.0050
Acenaphthene	mg/kg	<0.0050	0.0050	A439726	0.0050
Fluorene	mg/kg	<0.020	0.020	A439726	0.020
Phenanthrene	mg/kg	<0.010	0.010	A439726	0.010
Anthracene	mg/kg	<0.0040	0.0040	A439726	0.0040
Fluoranthene	mg/kg	<0.020	0.020	A439726	0.020
Pyrene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(a)anthracene	mg/kg	<0.020	0.020	A439726	0.020
Chrysene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(b&j)fluoranthene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(b)fluoranthene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(k)fluoranthene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(a)pyrene	mg/kg	<0.020	0.020	A439726	0.020
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	0.020	A439726	0.020
Dibenz(a,h)anthracene	mg/kg	<0.020	0.020	A439726	0.020
Benzo(g,h,i)perylene	mg/kg	<0.050	0.050	A439726	0.050
<b>Calculated Parameters</b>					
LEPH (C10-C19 less PAH)	mg/kg	<100	100	A455875	100
HEPH (C19-C32 less PAH)	mg/kg	<100	100	A455875	100
<b>Hydrocarbons</b>					
EPH (C10-C19)	mg/kg	<100	100	A439727	100
RDL = Reportable Detection Limit					



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

**LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)**

<b>Bureau Veritas ID</b>		AMD926			
<b>Sampling Date</b>		2021/11/29 14:30			
<b>COC Number</b>		G160377			
	<b>UNITS</b>	<b>BH21-10, SA01</b>	<b>RDL</b>	<b>QC Batch</b>	<b>MDL</b>
EPH (C19-C32)	mg/kg	<100	100	A439727	100
<b>Surrogate Recovery (%)</b>					
D10-ANTHRACENE (sur.)	%	80		A439726	
D8-ACENAPHTHYLENE (sur.)	%	80		A439726	
D8-NAPHTHALENE (sur.)	%	73		A439726	
TERPHENYL-D14 (sur.)	%	83		A439726	
O-TERPHENYL (sur.)	%	88		A439727	
RDL = Reportable Detection Limit					



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD913	AMD914				AMD914			
Sampling Date		2021/11/29 09:00	2021/11/29 09:00				2021/11/29 09:00			
COC Number		G160377	G160377				G160377			
	UNITS	BH21-07, SA01	BH21-07, SA02	RDL	QC Batch	MDL	BH21-07, SA02 Lab-Dup	RDL	QC Batch	MDL

#### Physical Properties

Soluble (2:1) pH	pH	5.49	5.48	N/A	A461351	N/A				
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	9750	20300	100	A461342	100	20200	100	A461342	100
Total Antimony (Sb)	mg/kg	0.21	0.20	0.10	A461342	0.10	0.21	0.10	A461342	0.10
Total Arsenic (As)	mg/kg	1.91	3.98	0.20	A461342	0.20	4.04	0.20	A461342	0.20
Total Barium (Ba)	mg/kg	43.5	69.4	0.10	A461342	0.10	70.4	0.10	A461342	0.10
Total Beryllium (Be)	mg/kg	0.30	0.26	0.20	A461342	0.20	0.26	0.20	A461342	0.20
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	0.10	A461342	0.10	<0.10	0.10	A461342	0.10
Total Boron (B)	mg/kg	2.0	2.5	1.0	A461342	0.30	3.4	1.0	A461342	0.30
Total Cadmium (Cd)	mg/kg	0.267	0.105	0.050	A461342	0.050	0.094	0.050	A461342	0.050
Total Calcium (Ca)	mg/kg	3010	1640 (1)	100	A461342	100	2010	100	A461342	100
Total Chromium (Cr)	mg/kg	13.9	31.1	0.50	A461342	0.50	31.5	0.50	A461342	0.50
Total Cobalt (Co)	mg/kg	4.45	7.72	0.10	A461342	0.10	7.77	0.10	A461342	0.10
Total Copper (Cu)	mg/kg	14.0	20.2	0.50	A461342	0.50	20.1	0.50	A461342	0.50
Total Iron (Fe)	mg/kg	13100	20800	100	A461342	100	20900	100	A461342	100
Total Lead (Pb)	mg/kg	5.61	3.54	0.10	A461342	0.10	3.61	0.10	A461342	0.10
Total Lithium (Li)	mg/kg	4.94	8.12	0.50	A461342	0.50	8.06	0.50	A461342	0.50
Total Magnesium (Mg)	mg/kg	3600	5990	100	A461342	100	5820	100	A461342	100
Total Manganese (Mn)	mg/kg	188	219	0.20	A461342	0.20	222	0.20	A461342	0.20
Total Mercury (Hg)	mg/kg	0.061	0.050	0.050	A461342	0.050	<0.050	0.050	A461342	0.050
Total Molybdenum (Mo)	mg/kg	0.36	0.43	0.10	A461342	0.050	0.40	0.10	A461342	0.050
Total Nickel (Ni)	mg/kg	10.5	21.3	0.50	A461342	0.50	21.1	0.50	A461342	0.50
Total Phosphorus (P)	mg/kg	411	361	10	A461342	10	352	10	A461342	10
Total Potassium (K)	mg/kg	544	644 (1)	100	A461342	100	690	100	A461342	100
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.50	A461342	0.50	<0.50	0.50	A461342	0.50
Total Silver (Ag)	mg/kg	<0.050	<0.050	0.050	A461342	0.050	<0.050	0.050	A461342	0.050
Total Sodium (Na)	mg/kg	192	107 (1)	100	A461342	100	127	100	A461342	100

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Matrix Spike outside acceptance criteria due to sample matrix interference.



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD913	AMD914				AMD914			
Sampling Date		2021/11/29 09:00	2021/11/29 09:00				2021/11/29 09:00			
COC Number		G160377	G160377				G160377			
	UNITS	BH21-07, SA01	BH21-07, SA02	RDL	QC Batch	MDL	BH21-07, SA02 Lab-Dup	RDL	QC Batch	MDL
Total Strontium (Sr)	mg/kg	20.2	12.4	0.10	A461342	0.10	15.0	0.10	A461342	0.10
Total Thallium (Tl)	mg/kg	0.058	<0.050	0.050	A461342	0.050	0.055	0.050	A461342	0.050
Total Tin (Sn)	mg/kg	0.34	0.32	0.10	A461342	0.10	0.35	0.10	A461342	0.10
Total Titanium (Ti)	mg/kg	563	1020	1.0	A461342	1.0	1120	1.0	A461342	1.0
Total Tungsten (W)	mg/kg	<0.50	<0.50	0.50	A461342	0.50	<0.50	0.50	A461342	0.50
Total Uranium (U)	mg/kg	0.449	0.390	0.050	A461342	0.050	0.412	0.050	A461342	0.050
Total Vanadium (V)	mg/kg	38.5	54.9	1.0	A461342	1.0	56.8	1.0	A461342	1.0
Total Zinc (Zn)	mg/kg	28.9	39.7	1.0	A461342	1.0	38.0	1.0	A461342	1.0
Total Zirconium (Zr)	mg/kg	0.61	5.07 (1)	0.50	A461342	0.50	4.65	0.50	A461342	0.50

RDL = Reportable Detection Limit  
 Lab-Dup = Laboratory Initiated Duplicate  
 (1) Matrix Spike outside acceptance criteria due to sample matrix interference.



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD916				AMD916			
Sampling Date		2021/11/29 09:00				2021/11/29 09:00			
COC Number		G160377				G160377			
	UNITS	BH21-07, SA04	RDL	QC Batch	MDL	BH21-07, SA04 Lab-Dup	RDL	QC Batch	MDL

#### Physical Properties

Soluble (2:1) pH	pH	6.07	N/A	A462503	N/A				
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	8700	100	A455166	100	8590	100	A455166	100
Total Antimony (Sb)	mg/kg	0.12	0.10	A455166	0.10	0.11	0.10	A455166	0.10
Total Arsenic (As)	mg/kg	1.56	0.20	A455166	0.20	1.62	0.20	A455166	0.20
Total Barium (Ba)	mg/kg	42.9 (1)	0.10	A455166	0.10	26.7 (2)	0.10	A455166	0.10
Total Beryllium (Be)	mg/kg	<0.20	0.20	A455166	0.20	<0.20	0.20	A455166	0.20
Total Bismuth (Bi)	mg/kg	<0.10	0.10	A455166	0.10	<0.10	0.10	A455166	0.10
Total Boron (B)	mg/kg	2.1	1.0	A455166	0.30	1.6	1.0	A455166	0.30
Total Cadmium (Cd)	mg/kg	0.051	0.050	A455166	0.050	<0.050	0.050	A455166	0.050
Total Calcium (Ca)	mg/kg	2620	100	A455166	100	2480	100	A455166	100
Total Chromium (Cr)	mg/kg	19.1	0.50	A455166	0.50	17.6	0.50	A455166	0.50
Total Cobalt (Co)	mg/kg	4.71	0.10	A455166	0.10	4.61	0.10	A455166	0.10
Total Copper (Cu)	mg/kg	10.6	0.50	A455166	0.50	10.1	0.50	A455166	0.50
Total Iron (Fe)	mg/kg	14500	100	A455166	100	13600	100	A455166	100
Total Lead (Pb)	mg/kg	1.48	0.10	A455166	0.10	1.35	0.10	A455166	0.10
Total Lithium (Li)	mg/kg	5.93	0.50	A455166	0.50	5.64	0.50	A455166	0.50
Total Magnesium (Mg)	mg/kg	4950	100	A455166	100	4900	100	A455166	100
Total Manganese (Mn)	mg/kg	191	0.20	A455166	0.20	191	0.20	A455166	0.20
Total Mercury (Hg)	mg/kg	<0.050	0.050	A455166	0.050	<0.050	0.050	A455166	0.050
Total Molybdenum (Mo)	mg/kg	0.22	0.10	A455166	0.050	0.20	0.10	A455166	0.050
Total Nickel (Ni)	mg/kg	15.8	0.50	A455166	0.50	13.9	0.50	A455166	0.50
Total Phosphorus (P)	mg/kg	366	10	A455166	10	343	10	A455166	10
Total Potassium (K)	mg/kg	430	100	A455166	100	422	100	A455166	100
Total Selenium (Se)	mg/kg	<0.50	0.50	A455166	0.50	<0.50	0.50	A455166	0.50

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

(1) Duplicate RPD above control limit - Non-homogenous sample - Increased variability of 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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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD916				AMD916			
Sampling Date		2021/11/29 09:00				2021/11/29 09:00			
COC Number		G160377				G160377			
	UNITS	BH21-07, SA04	RDL	QC Batch	MDL	BH21-07, SA04 Lab-Dup	RDL	QC Batch	MDL
Total Silver (Ag)	mg/kg	<0.050	0.050	A455166	0.050	<0.050	0.050	A455166	0.050
Total Sodium (Na)	mg/kg	145 (1)	100	A455166	100	138	100	A455166	100
Total Strontium (Sr)	mg/kg	14.3	0.10	A455166	0.10	11.3	0.10	A455166	0.10
Total Thallium (Tl)	mg/kg	<0.050	0.050	A455166	0.050	<0.050	0.050	A455166	0.050
Total Tin (Sn)	mg/kg	0.12	0.10	A455166	0.10	0.12	0.10	A455166	0.10
Total Titanium (Ti)	mg/kg	515	1.0	A455166	1.0	497	1.0	A455166	1.0
Total Tungsten (W)	mg/kg	<0.50	0.50	A455166	0.50	<0.50	0.50	A455166	0.50
Total Uranium (U)	mg/kg	0.173	0.050	A455166	0.050	0.158	0.050	A455166	0.050
Total Vanadium (V)	mg/kg	39.6	1.0	A455166	1.0	36.7	1.0	A455166	1.0
Total Zinc (Zn)	mg/kg	26.4	1.0	A455166	1.0	26.5	1.0	A455166	1.0
Total Zirconium (Zr)	mg/kg	2.69 (1)	0.50	A455166	0.50	2.67	0.50	A455166	0.50
RDL = Reportable Detection Limit									
Lab-Dup = Laboratory Initiated Duplicate									
(1) Matrix Spike outside acceptance criteria due to sample matrix interference.									



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD918		AMD919		AMD922			
Sampling Date		2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30			
COC Number		G160377		G160377		G160377			
	UNITS	BH21-08, SA01	QC Batch	BH21-08, SA02	QC Batch	BH21-09, SA01	RDL	QC Batch	MDL

#### Physical Properties

Soluble (2:1) pH	pH	5.65	A462503	5.35	A461351	10.8	N/A	A462503	N/A
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	24900	A455166	24400	A461342	16700	100	A455166	100
Total Antimony (Sb)	mg/kg	0.32	A455166	0.30	A461342	2.68	0.10	A455166	0.10
Total Arsenic (As)	mg/kg	5.11	A455166	5.07	A461342	7.11	0.20	A455166	0.20
Total Barium (Ba)	mg/kg	159	A455166	101	A461342	156	0.10	A455166	0.10
Total Beryllium (Be)	mg/kg	0.33	A455166	0.50	A461342	0.25	0.20	A455166	0.20
Total Bismuth (Bi)	mg/kg	<0.10	A455166	<0.10	A461342	0.15	0.10	A455166	0.10
Total Boron (B)	mg/kg	3.7	A455166	4.0	A461342	11.4	1.0	A455166	0.30
Total Cadmium (Cd)	mg/kg	0.120	A455166	0.085	A461342	0.135	0.050	A455166	0.050
Total Calcium (Ca)	mg/kg	1700	A455166	2250	A461342	46100	100	A455166	100
Total Chromium (Cr)	mg/kg	36.4	A455166	36.6	A461342	25.6	0.50	A455166	0.50
Total Cobalt (Co)	mg/kg	12.0	A455166	9.29	A461342	8.62	0.10	A455166	0.10
Total Copper (Cu)	mg/kg	28.6	A455166	24.0	A461342	36.4	0.50	A455166	0.50
Total Iron (Fe)	mg/kg	27100	A455166	24400	A461342	22300	100	A455166	100
Total Lead (Pb)	mg/kg	4.30	A455166	4.06	A461342	8.32	0.10	A455166	0.10
Total Lithium (Li)	mg/kg	9.98	A455166	9.13	A461342	7.77	0.50	A455166	0.50
Total Magnesium (Mg)	mg/kg	7270	A455166	6520	A461342	6920	100	A455166	100
Total Manganese (Mn)	mg/kg	330	A455166	282	A461342	387	0.20	A455166	0.20
Total Mercury (Hg)	mg/kg	0.110	A455166	0.104	A461342	<0.050	0.050	A455166	0.050
Total Molybdenum (Mo)	mg/kg	1.10	A455166	0.61	A461342	2.28	0.10	A455166	0.050
Total Nickel (Ni)	mg/kg	26.0	A455166	24.0	A461342	11.7	0.50	A455166	0.50
Total Phosphorus (P)	mg/kg	381	A455166	292	A461342	491	10	A455166	10
Total Potassium (K)	mg/kg	913	A455166	712	A461342	1400	100	A455166	100
Total Selenium (Se)	mg/kg	<0.50	A455166	<0.50	A461342	<0.50	0.50	A455166	0.50
Total Silver (Ag)	mg/kg	<0.050	A455166	<0.050	A461342	0.103	0.050	A455166	0.050
Total Sodium (Na)	mg/kg	167	A455166	166	A461342	851	100	A455166	100
Total Strontium (Sr)	mg/kg	13.8	A455166	21.2	A461342	124	0.10	A455166	0.10
Total Thallium (Tl)	mg/kg	0.101	A455166	0.081	A461342	<0.050	0.050	A455166	0.050

RDL = Reportable Detection Limit

N/A = Not Applicable



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD918		AMD919		AMD922			
Sampling Date		2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30			
COC Number		G160377		G160377		G160377			
	UNITS	BH21-08, SA01	QC Batch	BH21-08, SA02	QC Batch	BH21-09, SA01	RDL	QC Batch	MDL
Total Tin (Sn)	mg/kg	0.35	A455166	0.47	A461342	1.69	0.10	A455166	0.10
Total Titanium (Ti)	mg/kg	1060	A455166	1270	A461342	951	1.0	A455166	1.0
Total Tungsten (W)	mg/kg	<0.50	A455166	<0.50	A461342	2.57	0.50	A455166	0.50
Total Uranium (U)	mg/kg	0.579	A455166	0.484	A461342	0.675	0.050	A455166	0.050
Total Vanadium (V)	mg/kg	66.0	A455166	66.2	A461342	56.3	1.0	A455166	1.0
Total Zinc (Zn)	mg/kg	48.1	A455166	40.3	A461342	80.1	1.0	A455166	1.0
Total Zirconium (Zr)	mg/kg	5.78	A455166	5.04	A461342	6.19	0.50	A455166	0.50
RDL = Reportable Detection Limit									



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD923		AMD925				AMD925		
Sampling Date		2021/11/29 12:30		2021/11/29 12:30				2021/11/29 12:30		
COC Number		G160377		G160377				G160377		
	UNITS	BH21-09, SA02	QC Batch	BH21-9, SA04	RDL	QC Batch	MDL	BH21-9, SA04 Lab-Dup	QC Batch	MDL

#### Physical Properties

Soluble (2:1) pH	pH	10.9	A461351	6.34	N/A	A462503	N/A	6.28	A462503	N/A
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	16300	A461342	9220	100	A455166	100			
Total Antimony (Sb)	mg/kg	2.44	A461342	0.13	0.10	A455166	0.10			
Total Arsenic (As)	mg/kg	6.32	A461342	1.61	0.20	A455166	0.20			
Total Barium (Ba)	mg/kg	112	A461342	35.2	0.10	A455166	0.10			
Total Beryllium (Be)	mg/kg	0.23	A461342	<0.20	0.20	A455166	0.20			
Total Bismuth (Bi)	mg/kg	0.13	A461342	<0.10	0.10	A455166	0.10			
Total Boron (B)	mg/kg	9.3	A461342	1.9	1.0	A455166	0.30			
Total Cadmium (Cd)	mg/kg	0.129	A461342	<0.050	0.050	A455166	0.050			
Total Calcium (Ca)	mg/kg	41200	A461342	2850	100	A455166	100			
Total Chromium (Cr)	mg/kg	26.0	A461342	16.1	0.50	A455166	0.50			
Total Cobalt (Co)	mg/kg	7.23	A461342	4.66	0.10	A455166	0.10			
Total Copper (Cu)	mg/kg	39.4	A461342	11.2	0.50	A455166	0.50			
Total Iron (Fe)	mg/kg	19800	A461342	15500	100	A455166	100			
Total Lead (Pb)	mg/kg	7.02	A461342	1.48	0.10	A455166	0.10			
Total Lithium (Li)	mg/kg	6.84	A461342	5.82	0.50	A455166	0.50			
Total Magnesium (Mg)	mg/kg	6130	A461342	4790	100	A455166	100			
Total Manganese (Mn)	mg/kg	360	A461342	206	0.20	A455166	0.20			
Total Mercury (Hg)	mg/kg	0.057	A461342	<0.050	0.050	A455166	0.050			
Total Molybdenum (Mo)	mg/kg	2.29	A461342	0.40	0.10	A455166	0.050			
Total Nickel (Ni)	mg/kg	10.3	A461342	13.8	0.50	A455166	0.50			
Total Phosphorus (P)	mg/kg	451	A461342	369	10	A455166	10			
Total Potassium (K)	mg/kg	1300	A461342	439	100	A455166	100			
Total Selenium (Se)	mg/kg	<0.50	A461342	<0.50	0.50	A455166	0.50			
Total Silver (Ag)	mg/kg	0.092	A461342	<0.050	0.050	A455166	0.050			
Total Sodium (Na)	mg/kg	798	A461342	224	100	A455166	100			
Total Strontium (Sr)	mg/kg	113	A461342	15.6	0.10	A455166	0.10			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD923		AMD925				AMD925		
Sampling Date		2021/11/29 12:30		2021/11/29 12:30				2021/11/29 12:30		
COC Number		G160377		G160377				G160377		
	UNITS	BH21-09, SA02	QC Batch	BH21-9, SA04	RDL	QC Batch	MDL	BH21-9, SA04 Lab-Dup	QC Batch	MDL
Total Thallium (Tl)	mg/kg	0.058	A461342	<0.050	0.050	A455166	0.050			
Total Tin (Sn)	mg/kg	1.41	A461342	0.15	0.10	A455166	0.10			
Total Titanium (Ti)	mg/kg	1020	A461342	543	1.0	A455166	1.0			
Total Tungsten (W)	mg/kg	1.97	A461342	<0.50	0.50	A455166	0.50			
Total Uranium (U)	mg/kg	0.557	A461342	0.171	0.050	A455166	0.050			
Total Vanadium (V)	mg/kg	52.3	A461342	42.8	1.0	A455166	1.0			
Total Zinc (Zn)	mg/kg	69.2	A461342	26.6	1.0	A455166	1.0			
Total Zirconium (Zr)	mg/kg	6.22	A461342	2.71	0.50	A455166	0.50			
RDL = Reportable Detection Limit										
Lab-Dup = Laboratory Initiated Duplicate										



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, Pitt Meadows

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD926		AMD927				AMD927		
Sampling Date		2021/11/29 14:30		2021/11/29 14:30				2021/11/29 14:30		
COC Number		G160377		G160377				G160377		
	UNITS	BH21-10, SA01	QC Batch	BH21-10, SA02	RDL	QC Batch	MDL	BH21-10, SA02 Lab-Dup	QC Batch	MDL

#### Physical Properties

Soluble (2:1) pH	pH	5.99	A462503	5.76	N/A	A461351	N/A	5.75	A461351	N/A
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	12300	A455166	12500	100	A461342	100			
Total Antimony (Sb)	mg/kg	0.14	A455166	0.15	0.10	A461342	0.10			
Total Arsenic (As)	mg/kg	2.70	A455166	2.31	0.20	A461342	0.20			
Total Barium (Ba)	mg/kg	39.2	A455166	36.2	0.10	A461342	0.10			
Total Beryllium (Be)	mg/kg	<0.20	A455166	<0.20	0.20	A461342	0.20			
Total Bismuth (Bi)	mg/kg	<0.10	A455166	<0.10	0.10	A461342	0.10			
Total Boron (B)	mg/kg	1.7	A455166	2.4	1.0	A461342	0.30			
Total Cadmium (Cd)	mg/kg	0.055	A455166	0.061	0.050	A461342	0.050			
Total Calcium (Ca)	mg/kg	2050	A455166	2710	100	A461342	100			
Total Chromium (Cr)	mg/kg	18.3	A455166	18.4	0.50	A461342	0.50			
Total Cobalt (Co)	mg/kg	5.24	A455166	5.14	0.10	A461342	0.10			
Total Copper (Cu)	mg/kg	12.9	A455166	12.5	0.50	A461342	0.50			
Total Iron (Fe)	mg/kg	17300	A455166	16500	100	A461342	100			
Total Lead (Pb)	mg/kg	1.81	A455166	1.78	0.10	A461342	0.10			
Total Lithium (Li)	mg/kg	6.79	A455166	6.91	0.50	A461342	0.50			
Total Magnesium (Mg)	mg/kg	5380	A455166	5710	100	A461342	100			
Total Manganese (Mn)	mg/kg	214	A455166	238	0.20	A461342	0.20			
Total Mercury (Hg)	mg/kg	<0.050	A455166	<0.050	0.050	A461342	0.050			
Total Molybdenum (Mo)	mg/kg	0.44	A455166	0.38	0.10	A461342	0.050			
Total Nickel (Ni)	mg/kg	15.3	A455166	15.2	0.50	A461342	0.50			
Total Phosphorus (P)	mg/kg	359	A455166	365	10	A461342	10			
Total Potassium (K)	mg/kg	490	A455166	497	100	A461342	100			
Total Selenium (Se)	mg/kg	<0.50	A455166	<0.50	0.50	A461342	0.50			
Total Silver (Ag)	mg/kg	<0.050	A455166	<0.050	0.050	A461342	0.050			
Total Sodium (Na)	mg/kg	146	A455166	175	100	A461342	100			
Total Strontium (Sr)	mg/kg	12.0	A455166	14.0	0.10	A461342	0.10			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AMD926		AMD927				AMD927		
Sampling Date		2021/11/29 14:30		2021/11/29 14:30				2021/11/29 14:30		
COC Number		G160377		G160377				G160377		
	UNITS	<b>BH21-10, SA01</b>	QC Batch	<b>BH21-10, SA02</b>	RDL	QC Batch	MDL	<b>BH21-10, SA02 Lab-Dup</b>	QC Batch	MDL
Total Thallium (Tl)	mg/kg	<0.050	A455166	<0.050	0.050	A461342	0.050			
Total Tin (Sn)	mg/kg	0.17	A455166	0.27	0.10	A461342	0.10			
Total Titanium (Ti)	mg/kg	569	A455166	780	1.0	A461342	1.0			
Total Tungsten (W)	mg/kg	<0.50	A455166	<0.50	0.50	A461342	0.50			
Total Uranium (U)	mg/kg	0.254	A455166	0.225	0.050	A461342	0.050			
Total Vanadium (V)	mg/kg	42.4	A455166	41.1	1.0	A461342	1.0			
Total Zinc (Zn)	mg/kg	29.0	A455166	29.1	1.0	A461342	1.0			
Total Zirconium (Zr)	mg/kg	2.91	A455166	3.66	0.50	A461342	0.50			

RDL = Reportable Detection Limit  
Lab-Dup = Laboratory Initiated Duplicate



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

### SOLUBLE SODIUM AND CHLORIDE IN SOIL (SOIL)

Bureau Veritas ID		AMD913			AMD914			AMD916			
Sampling Date		2021/11/29 09:00			2021/11/29 09:00			2021/11/29 09:00			
COC Number		G160377			G160377			G160377			
	UNITS	BH21-07, SA01	RDL	QC Batch	BH21-07, SA02	RDL	QC Batch	BH21-07, SA04	RDL	QC Batch	MDL

#### ANIONS

Soluble Chloride (Cl)	mg/L	<10	10	A457969	<10	10	A457969	<10	10	A457969	10
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg	<4.5	4.5	A456925	<4.4	4.4	A456925	<3.8	3.8	A456925	5.0
Soluble Sodium (Na)	mg/kg	<2.3	2.3	A456936	<2.2	2.2	A456939	2.9	1.9	A456936	0.10

#### Soluble Parameters

Saturation %	%	45.4	N/A	A457475	43.8	N/A	A457475	37.5	N/A	A457475	N/A
Soluble Sodium (Na)	mg/L	<5.0	5.0	A456929	<5.0	5.0	A456929	7.7	5.0	A456929	5.0

RDL = Reportable Detection Limit

N/A = Not Applicable

Bureau Veritas ID		AMD918		AMD919		AMD922		AMD923			
Sampling Date		2021/11/29 11:00		2021/11/29 11:00		2021/11/29 12:30		2021/11/29 12:30			
COC Number		G160377		G160377		G160377		G160377			
	UNITS	BH21-08, SA01	RDL	BH21-08, SA02	RDL	BH21-09, SA01	RDL	BH21-09, SA02	RDL	QC Batch	MDL

#### ANIONS

Soluble Chloride (Cl)	mg/L	372	10	353	10	100	10	169	10	A457969	10
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg	184	5.0	161	4.6	46.7	4.7	83.3	4.9	A456925	5.0
Soluble Sodium (Na)	mg/kg	28.2	2.5	23.9	2.3	58.6	2.3	10.5	2.5	A456939	0.10

#### Soluble Parameters

Saturation %	%	49.6	N/A	45.6	N/A	46.7	N/A	49.2	N/A	A457475	N/A
Soluble Sodium (Na)	mg/L	56.8	5.0	52.4	5.0	125	5.0	21.3	5.0	A456929	5.0

RDL = Reportable Detection Limit

N/A = Not Applicable



BUREAU  
VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

### SOLUBLE SODIUM AND CHLORIDE IN SOIL (SOIL)

Bureau Veritas ID		AMD925		AMD926		AMD927			
Sampling Date		2021/11/29 12:30		2021/11/29 14:30		2021/11/29 14:30			
COC Number		G160377		G160377		G160377			
	UNITS	BH21-9, SA04	RDL	BH21-10, SA01	RDL	BH21-10, SA02	RDL	QC Batch	MDL
<b>ANIONS</b>									
Soluble Chloride (Cl)	mg/L	351	10	195	10	175	10	A457969	10
<b>Calculated Parameters</b>									
Soluble Chloride (Cl)	mg/kg	123	3.5	83.5	4.3	64.1	3.7	A456925	5.0
Soluble Sodium (Na)	mg/kg	27.0	1.8	10.3	2.1	11.3	1.8	A456939	0.10
<b>Soluble Parameters</b>									
Saturation %	%	35.1	N/A	42.9	N/A	36.5	N/A	A457475	N/A
Soluble Sodium (Na)	mg/L	76.8	5.0	24.0	5.0	31.0	5.0	A456929	5.0
RDL = Reportable Detection Limit									
N/A = Not Applicable									



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VERITAS

Bureau Veritas Job #: C195347

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PIT MEADOWS

Sampler Initials: GH

#### GENERAL COMMENTS

Sample AMD921 [BH21-08, SA04] : Sample analyzed past method specified hold time for PAH in Soil by GC/MS (SIM). Sample analyzed past method specified hold time for EPH in Soil by GC/FID.

Sample AMD925 [BH21-9, SA04] : Sample analyzed past method specified hold time for PAH in Soil by GC/MS (SIM). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample analyzed past method specified hold time for EPH in Soil by GC/FID.

**Results relate only to the items tested.**



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Bureau Veritas Job #: C195347

Report Date: 2022/01/12

## QUALITY ASSURANCE REPORT

STANTEC CONSULTING LTD

Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS

Sampler Initials: GH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A439726	D10-ANTHRACENE (sur.)	2021/12/03	83	50 - 140	79	50 - 140	94	%				
A439726	D8-ACENAPHTHYLENE (sur.)	2021/12/03	85	50 - 140	79	50 - 140	95	%				
A439726	D8-NAPHTHALENE (sur.)	2021/12/03	77	50 - 140	70	50 - 140	89	%				
A439726	TERPHENYL-D14 (sur.)	2021/12/03	89	50 - 140	85	50 - 140	101	%				
A439727	O-TERPHENYL (sur.)	2021/12/03	78	60 - 140	78	60 - 140	88	%				
A461314	O-TERPHENYL (sur.)	2021/12/30	98	60 - 140	97	60 - 140	103	%				
A461320	D10-ANTHRACENE (sur.)	2021/12/30	91	50 - 140	93	50 - 140	98	%				
A461320	D8-ACENAPHTHYLENE (sur.)	2021/12/30	88	50 - 140	92	50 - 140	94	%				
A461320	D8-NAPHTHALENE (sur.)	2021/12/30	84	50 - 140	88	50 - 140	87	%				
A461320	TERPHENYL-D14 (sur.)	2021/12/30	100	50 - 140	102	50 - 140	111	%				
A439726	1-Methylnaphthalene	2021/12/03	82	50 - 140	78	50 - 140	<0.050	mg/kg	NC	50		
A439726	2-Methylnaphthalene	2021/12/03	83	50 - 140	79	50 - 140	<0.020	mg/kg	NC	50		
A439726	Acenaphthene	2021/12/03	85	50 - 140	80	50 - 140	<0.0050	mg/kg	NC	50		
A439726	Acenaphthylene	2021/12/03	83	50 - 140	78	50 - 140	<0.0050	mg/kg	NC	50		
A439726	Anthracene	2021/12/03	81	50 - 140	77	50 - 140	<0.0040	mg/kg	NC	50		
A439726	Benzo(a)anthracene	2021/12/03	82	50 - 140	79	50 - 140	<0.020	mg/kg	NC	50		
A439726	Benzo(a)pyrene	2021/12/03	83	50 - 140	79	50 - 140	<0.020	mg/kg	NC	50		
A439726	Benzo(b&j)fluoranthene	2021/12/03	80	50 - 140	80	50 - 140	<0.020	mg/kg	NC	50		
A439726	Benzo(b)fluoranthene	2021/12/03	78	50 - 140	75	50 - 140	<0.020	mg/kg	NC	50		
A439726	Benzo(g,h,i)perylene	2021/12/03	81	50 - 140	77	50 - 140	<0.050	mg/kg	NC	50		
A439726	Benzo(k)fluoranthene	2021/12/03	83	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A439726	Chrysene	2021/12/03	79	50 - 140	79	50 - 140	<0.020	mg/kg	NC	50		
A439726	Dibenz(a,h)anthracene	2021/12/03	82	50 - 140	77	50 - 140	<0.020	mg/kg	NC	50		
A439726	Fluoranthene	2021/12/03	85	50 - 140	81	50 - 140	<0.020	mg/kg	44	50		
A439726	Fluorene	2021/12/03	87	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A439726	Indeno(1,2,3-cd)pyrene	2021/12/03	85	50 - 140	80	50 - 140	<0.020	mg/kg	NC	50		
A439726	Naphthalene	2021/12/03	79	50 - 140	75	50 - 140	<0.010	mg/kg	NC	50		
A439726	Phenanthrene	2021/12/03	78	50 - 140	76	50 - 140	<0.010	mg/kg	NC	50		
A439726	Pyrene	2021/12/03	85	50 - 140	82	50 - 140	<0.020	mg/kg	32	50		
A439726	Quinoline	2021/12/03	105	50 - 140	107	50 - 140	<0.050	mg/kg	NC	50		
A439727	EPH (C10-C19)	2021/12/03	90	60 - 140	75	70 - 130	<100	mg/kg	NC	40		
A439727	EPH (C19-C32)	2021/12/03	79	60 - 140	71	70 - 130	<100	mg/kg	NC	40		



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## QUALITY ASSURANCE REPORT(CONT'D)

STANTEC CONSULTING LTD  
Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS  
Sampler Initials: GH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A455166	Total Aluminum (Al)	2021/12/06	NC	75 - 125	97	75 - 125	<100	mg/kg	1.3	40	95	70 - 130
A455166	Total Antimony (Sb)	2021/12/06	112	75 - 125	102	75 - 125	<0.10	mg/kg	7.4	30	109	70 - 130
A455166	Total Arsenic (As)	2021/12/06	107	75 - 125	99	75 - 125	<0.20	mg/kg	4.2	30	89	70 - 130
A455166	Total Barium (Ba)	2021/12/06	107	75 - 125	98	75 - 125	<0.10	mg/kg	47 (1)	40	103	70 - 130
A455166	Total Beryllium (Be)	2021/12/06	109	75 - 125	99	75 - 125	<0.20	mg/kg	NC	30	94	70 - 130
A455166	Total Bismuth (Bi)	2021/12/06	108	75 - 125	99	75 - 125	<0.10	mg/kg	NC	30		
A455166	Total Boron (B)	2021/12/06	114	75 - 125	104	75 - 125	<1.0	mg/kg	28	30		
A455166	Total Cadmium (Cd)	2021/12/06	110	75 - 125	100	75 - 125	<0.050	mg/kg	1.6	30	104	70 - 130
A455166	Total Calcium (Ca)	2021/12/06	NC	75 - 125	105	75 - 125	<100	mg/kg	5.5	30	99	70 - 130
A455166	Total Chromium (Cr)	2021/12/06	109	75 - 125	100	75 - 125	<0.50	mg/kg	8.3	30	85	70 - 130
A455166	Total Cobalt (Co)	2021/12/06	107	75 - 125	98	75 - 125	<0.10	mg/kg	2.1	30	95	70 - 130
A455166	Total Copper (Cu)	2021/12/06	107	75 - 125	100	75 - 125	<0.50	mg/kg	5.4	30	104	70 - 130
A455166	Total Iron (Fe)	2021/12/06	NC	75 - 125	100	75 - 125	<100	mg/kg	6.3	30	101	70 - 130
A455166	Total Lead (Pb)	2021/12/06	109	75 - 125	99	75 - 125	<0.10	mg/kg	8.7	40	111	70 - 130
A455166	Total Lithium (Li)	2021/12/06	111	75 - 125	96	75 - 125	<0.50	mg/kg	5.0	30	100	70 - 130
A455166	Total Magnesium (Mg)	2021/12/06	NC	75 - 125	103	75 - 125	<100	mg/kg	0.86	30	103	70 - 130
A455166	Total Manganese (Mn)	2021/12/06	125	75 - 125	99	75 - 125	<0.20	mg/kg	0.24	30	98	70 - 130
A455166	Total Mercury (Hg)	2021/12/06	110	75 - 125	100	75 - 125	<0.050	mg/kg	NC	40	104	70 - 130
A455166	Total Molybdenum (Mo)	2021/12/06	111	75 - 125	99	75 - 125	<0.10	mg/kg	10	40	108	70 - 130
A455166	Total Nickel (Ni)	2021/12/06	106	75 - 125	98	75 - 125	<0.50	mg/kg	13	30	104	70 - 130
A455166	Total Phosphorus (P)	2021/12/06	104	75 - 125	94	75 - 125	<10	mg/kg	6.7	30	99	70 - 130
A455166	Total Potassium (K)	2021/12/06	115	75 - 125	99	75 - 125	<100	mg/kg	1.9	40	78	70 - 130
A455166	Total Selenium (Se)	2021/12/06	108	75 - 125	98	75 - 125	<0.50	mg/kg	NC	30		
A455166	Total Silver (Ag)	2021/12/06	108	75 - 125	99	75 - 125	<0.050	mg/kg	NC	40	106	70 - 130
A455166	Total Sodium (Na)	2021/12/06	132 (1)	75 - 125	103	75 - 125	<100	mg/kg	4.8	40	85	70 - 130
A455166	Total Strontium (Sr)	2021/12/06	116	75 - 125	100	75 - 125	<0.10	mg/kg	24	40	106	70 - 130
A455166	Total Thallium (Tl)	2021/12/06	108	75 - 125	99	75 - 125	<0.050	mg/kg	NC	30	88	70 - 130
A455166	Total Tin (Sn)	2021/12/06	112	75 - 125	102	75 - 125	<0.10	mg/kg	1.1	40	102	70 - 130
A455166	Total Titanium (Ti)	2021/12/06	NC	75 - 125	97	75 - 125	<1.0	mg/kg	3.5	40		
A455166	Total Tungsten (W)	2021/12/06	106	75 - 125	102	75 - 125	<0.50	mg/kg	NC	40		
A455166	Total Uranium (U)	2021/12/06	112	75 - 125	99	75 - 125	<0.050	mg/kg	9.1	30	90	70 - 130
A455166	Total Vanadium (V)	2021/12/06	111	75 - 125	99	75 - 125	<1.0	mg/kg	7.7	30	95	70 - 130



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## QUALITY ASSURANCE REPORT(CONT'D)

STANTEC CONSULTING LTD  
Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS  
Sampler Initials: GH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A455166	Total Zinc (Zn)	2021/12/06	108	75 - 125	98	75 - 125	<1.0	mg/kg	0.54	30	105	70 - 130
A455166	Total Zirconium (Zr)	2021/12/06	128 (1)	75 - 125	108	75 - 125	<0.50	mg/kg	0.45	40		
A456312	Moisture	2021/12/29					<0.30	%	15	20		
A456929	Soluble Sodium (Na)	2021/12/07			92	80 - 120	<5.0	mg/L			88	75 - 125
A457475	Saturation %	2021/12/24					0	%			102	75 - 125
A457969	Soluble Chloride (Cl)	2021/12/07			104	80 - 120	<10	mg/L			93	75 - 125
A460366	Moisture	2021/12/30					<0.30	%	1.9	20		
A461314	EPH (C10-C19)	2021/12/30	81	60 - 140	82	70 - 130	<100	mg/kg	NC	40		
A461314	EPH (C19-C32)	2021/12/30	82	60 - 140	79	70 - 130	<100	mg/kg	NC	40		
A461320	1-Methylnaphthalene	2021/12/30	85	50 - 140	83	50 - 140	<0.050	mg/kg	NC	50		
A461320	2-Methylnaphthalene	2021/12/30	84	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A461320	Acenaphthene	2021/12/30	86	50 - 140	84	50 - 140	<0.0050	mg/kg	NC	50		
A461320	Acenaphthylene	2021/12/30	85	50 - 140	83	50 - 140	<0.0050	mg/kg	NC	50		
A461320	Anthracene	2021/12/30	85	50 - 140	81	50 - 140	<0.0040	mg/kg	NC	50		
A461320	Benzo(a)anthracene	2021/12/30	82	50 - 140	83	50 - 140	<0.020	mg/kg	NC	50		
A461320	Benzo(a)pyrene	2021/12/30	84	50 - 140	85	50 - 140	<0.020	mg/kg	NC	50		
A461320	Benzo(b&j)fluoranthene	2021/12/30	81	50 - 140	83	50 - 140	<0.020	mg/kg	NC	50		
A461320	Benzo(b)fluoranthene	2021/12/30	76	50 - 140	77	50 - 140	<0.020	mg/kg	NC	50		
A461320	Benzo(g,h,i)perylene	2021/12/30	86	50 - 140	87	50 - 140	<0.050	mg/kg	NC	50		
A461320	Benzo(k)fluoranthene	2021/12/30	84	50 - 140	86	50 - 140	<0.020	mg/kg	NC	50		
A461320	Chrysene	2021/12/30	81	50 - 140	83	50 - 140	<0.020	mg/kg	NC	50		
A461320	Dibenz(a,h)anthracene	2021/12/30	82	50 - 140	84	50 - 140	<0.020	mg/kg	NC	50		
A461320	Fluoranthene	2021/12/30	94	50 - 140	91	50 - 140	<0.020	mg/kg	NC	50		
A461320	Fluorene	2021/12/30	89	50 - 140	87	50 - 140	<0.020	mg/kg	NC	50		
A461320	Indeno(1,2,3-cd)pyrene	2021/12/30	87	50 - 140	88	50 - 140	<0.020	mg/kg	NC	50		
A461320	Naphthalene	2021/12/30	79	50 - 140	77	50 - 140	<0.010	mg/kg	NC	50		
A461320	Phenanthrene	2021/12/30	85	50 - 140	81	50 - 140	<0.010	mg/kg	NC	50		
A461320	Pyrene	2021/12/30	90	50 - 140	87	50 - 140	<0.020	mg/kg	NC	50		
A461320	Quinoline	2021/12/30	105	50 - 140	98	50 - 140	<0.050	mg/kg	NC	50		
A461342	Total Aluminum (Al)	2021/12/31	NC	75 - 125	104	75 - 125	<100	mg/kg	0.31	40	109	70 - 130
A461342	Total Antimony (Sb)	2021/12/31	104	75 - 125	102	75 - 125	<0.10	mg/kg	6.0	30	124	70 - 130
A461342	Total Arsenic (As)	2021/12/31	103	75 - 125	100	75 - 125	<0.20	mg/kg	1.6	30	91	70 - 130



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Site Location: 19125 1198 AVE, PITT MEADOWS  
Sampler Initials: GH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A461342	Total Barium (Ba)	2021/12/31	117	75 - 125	98	75 - 125	<0.10	mg/kg	1.4	40	105	70 - 130
A461342	Total Beryllium (Be)	2021/12/31	99	75 - 125	96	75 - 125	<0.20	mg/kg	0.58	30	105	70 - 130
A461342	Total Bismuth (Bi)	2021/12/31	105	75 - 125	102	75 - 125	<0.10	mg/kg	NC	30		
A461342	Total Boron (B)	2021/12/31	104	75 - 125	107	75 - 125	<1.0	mg/kg	NC	30		
A461342	Total Cadmium (Cd)	2021/12/31	103	75 - 125	101	75 - 125	<0.050	mg/kg	11	30	95	70 - 130
A461342	Total Calcium (Ca)	2021/12/31	201 (1)	75 - 125	102	75 - 125	<100	mg/kg	20	30	103	70 - 130
A461342	Total Chromium (Cr)	2021/12/31	106	75 - 125	101	75 - 125	<0.50	mg/kg	1.2	30	108	70 - 130
A461342	Total Cobalt (Co)	2021/12/31	99	75 - 125	97	75 - 125	<0.10	mg/kg	0.70	30	100	70 - 130
A461342	Total Copper (Cu)	2021/12/31	104	75 - 125	104	75 - 125	<0.50	mg/kg	0.46	30	104	70 - 130
A461342	Total Iron (Fe)	2021/12/31	NC	75 - 125	102	75 - 125	<100	mg/kg	0.71	30	104	70 - 130
A461342	Total Lead (Pb)	2021/12/31	102	75 - 125	99	75 - 125	<0.10	mg/kg	1.9	40	113	70 - 130
A461342	Total Lithium (Li)	2021/12/31	99	75 - 125	97	75 - 125	<0.50	mg/kg	0.80	30	106	70 - 130
A461342	Total Magnesium (Mg)	2021/12/31	NC	75 - 125	105	75 - 125	<100	mg/kg	2.9	30	110	70 - 130
A461342	Total Manganese (Mn)	2021/12/31	124	75 - 125	102	75 - 125	<0.20	mg/kg	1.3	30	110	70 - 130
A461342	Total Mercury (Hg)	2021/12/31	106	75 - 125	103	75 - 125	<0.050	mg/kg	0.70	40	106	70 - 130
A461342	Total Molybdenum (Mo)	2021/12/31	107	75 - 125	101	75 - 125	<0.10	mg/kg	5.4	40	109	70 - 130
A461342	Total Nickel (Ni)	2021/12/31	98	75 - 125	99	75 - 125	<0.50	mg/kg	0.64	30	108	70 - 130
A461342	Total Phosphorus (P)	2021/12/31	100	75 - 125	100	75 - 125	<10	mg/kg	2.7	30	97	70 - 130
A461342	Total Potassium (K)	2021/12/31	137 (1)	75 - 125	101	75 - 125	<100	mg/kg	7.0	40	95	70 - 130
A461342	Total Selenium (Se)	2021/12/31	102	75 - 125	101	75 - 125	<0.50	mg/kg	NC	30		
A461342	Total Silver (Ag)	2021/12/31	99	75 - 125	96	75 - 125	<0.050	mg/kg	NC	40	140 (2)	70 - 130
A461342	Total Sodium (Na)	2021/12/31	126 (1)	75 - 125	103	75 - 125	<100	mg/kg	17	40	101	70 - 130
A461342	Total Strontium (Sr)	2021/12/31	115	75 - 125	103	75 - 125	<0.10	mg/kg	19	40	111	70 - 130
A461342	Total Thallium (Tl)	2021/12/31	104	75 - 125	101	75 - 125	<0.050	mg/kg	10	30	98	70 - 130
A461342	Total Tin (Sn)	2021/12/31	108	75 - 125	104	75 - 125	<0.10	mg/kg	8.1	40	103	70 - 130
A461342	Total Titanium (Ti)	2021/12/31	NC	75 - 125	101	75 - 125	<1.0	mg/kg	10	40		
A461342	Total Tungsten (W)	2021/12/31	97	75 - 125	105	75 - 125	<0.50	mg/kg	NC	40		
A461342	Total Uranium (U)	2021/12/31	103	75 - 125	98	75 - 125	<0.050	mg/kg	5.5	30	100	70 - 130
A461342	Total Vanadium (V)	2021/12/31	104	75 - 125	98	75 - 125	<1.0	mg/kg	3.3	30	108	70 - 130
A461342	Total Zinc (Zn)	2021/12/31	100	75 - 125	101	75 - 125	<1.0	mg/kg	4.5	30	105	70 - 130
A461342	Total Zirconium (Zr)	2021/12/31	133 (1)	75 - 125	105	75 - 125	<0.50	mg/kg	8.8	40		
A461351	Soluble (2:1) pH	2021/12/30			100	97 - 103			0.17	N/A		



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Client Project #: 123315738

Site Location: 19125 1198 AVE, PITT MEADOWS  
Sampler Initials: GH

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A462503	Soluble (2:1) pH	2021/12/31			100	N/A			0.95	N/A		
A463491	Soluble (Hot water) Boron (B)	2022/01/04	106	75 - 125	110	80 - 120	<0.10	mg/kg	NC	35		
A463917	Hex. Chromium (Cr 6+)	2021/12/07	107	75 - 125	107	80 - 120	<0.080	mg/kg	NC	35		
A467101	Moisture	2022/01/10					<0.30	%	6.7	20		

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.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(2) Reference outside acceptance criteria - re-analysis yields similar results.



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STANTEC CONSULTING LTD

Client Project #: 123315738

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Sampler Initials: GH

### VALIDATION SIGNATURE PAGE

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

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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Victoria: 851 Viewfield Road, Unit 1, Victoria, BC V9A 4V2 Toll Free (833) 282-5227  
[hvlabz.com](http://hvlabz.com)

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**CHAIN OF CUSTODY RECORD**

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Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):
	2021/11/29	13:15		2021/11/29	17:15

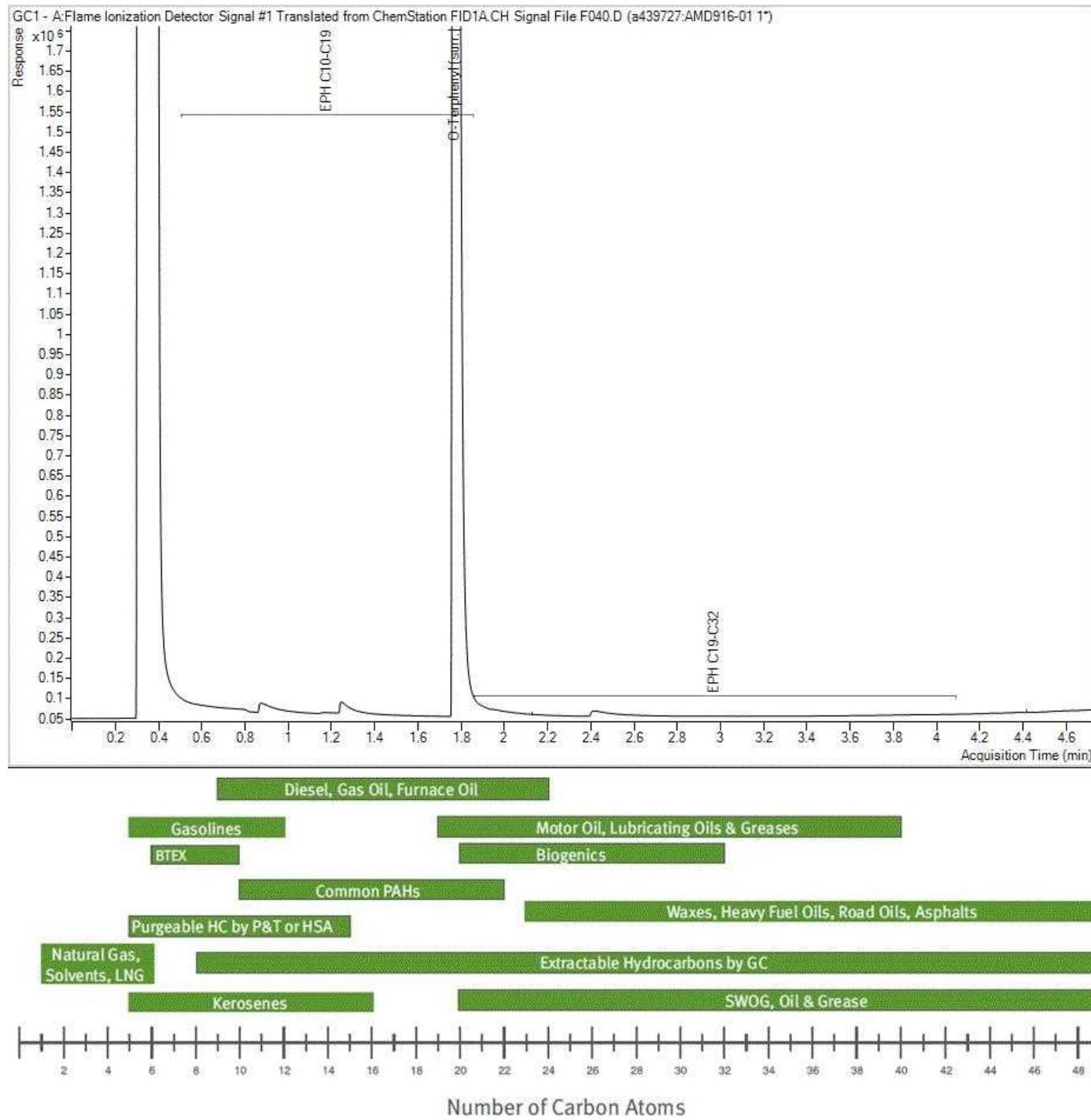


C195347 COC

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD916

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-07, SA04

### EPH in Soil by GC/FID Chromatogram

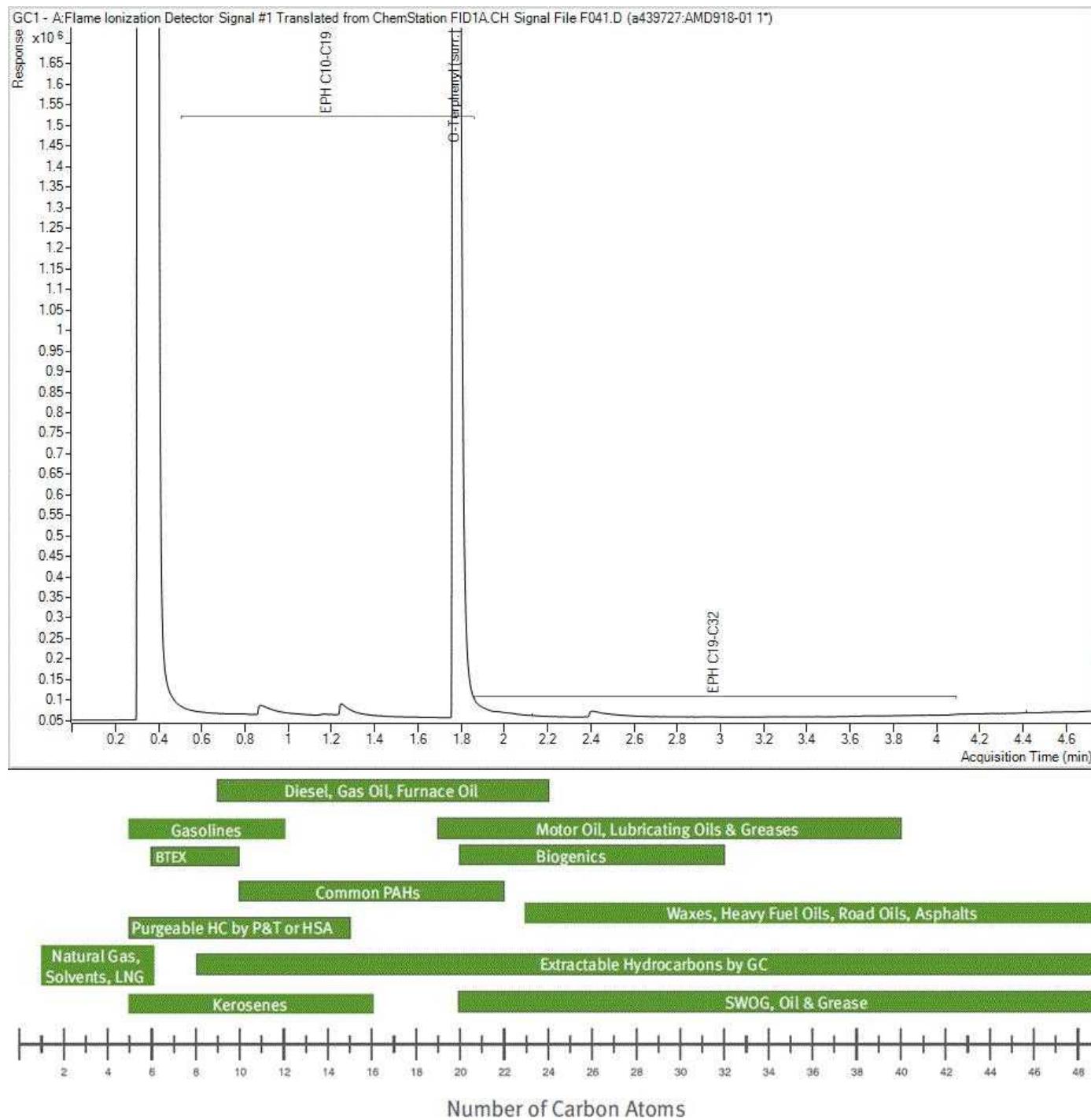


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD918

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-08, SA01

### EPH in Soil by GC/FID Chromatogram

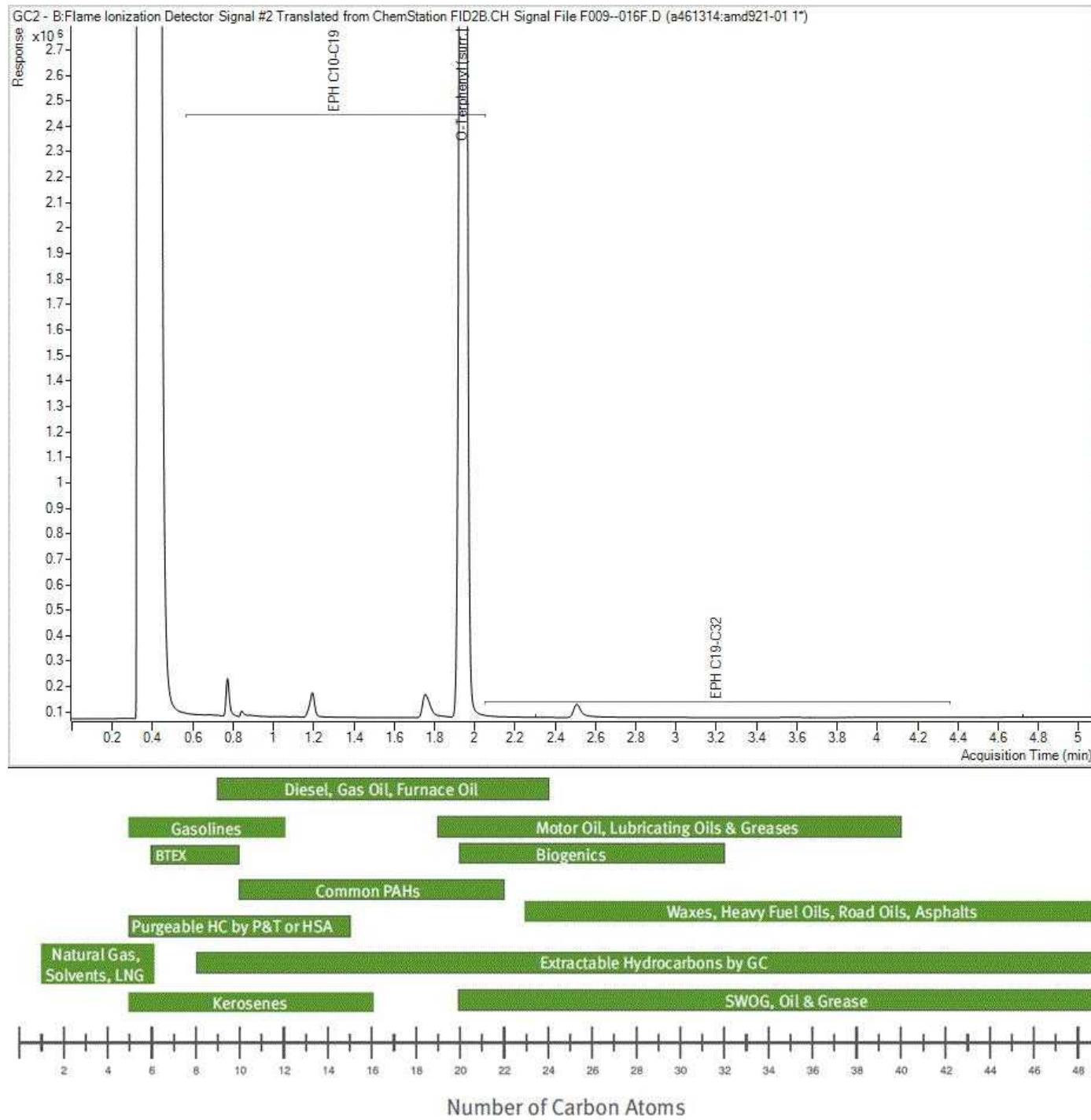


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD921

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-08, SA04

### EPH in Soil by GC/FID Chromatogram

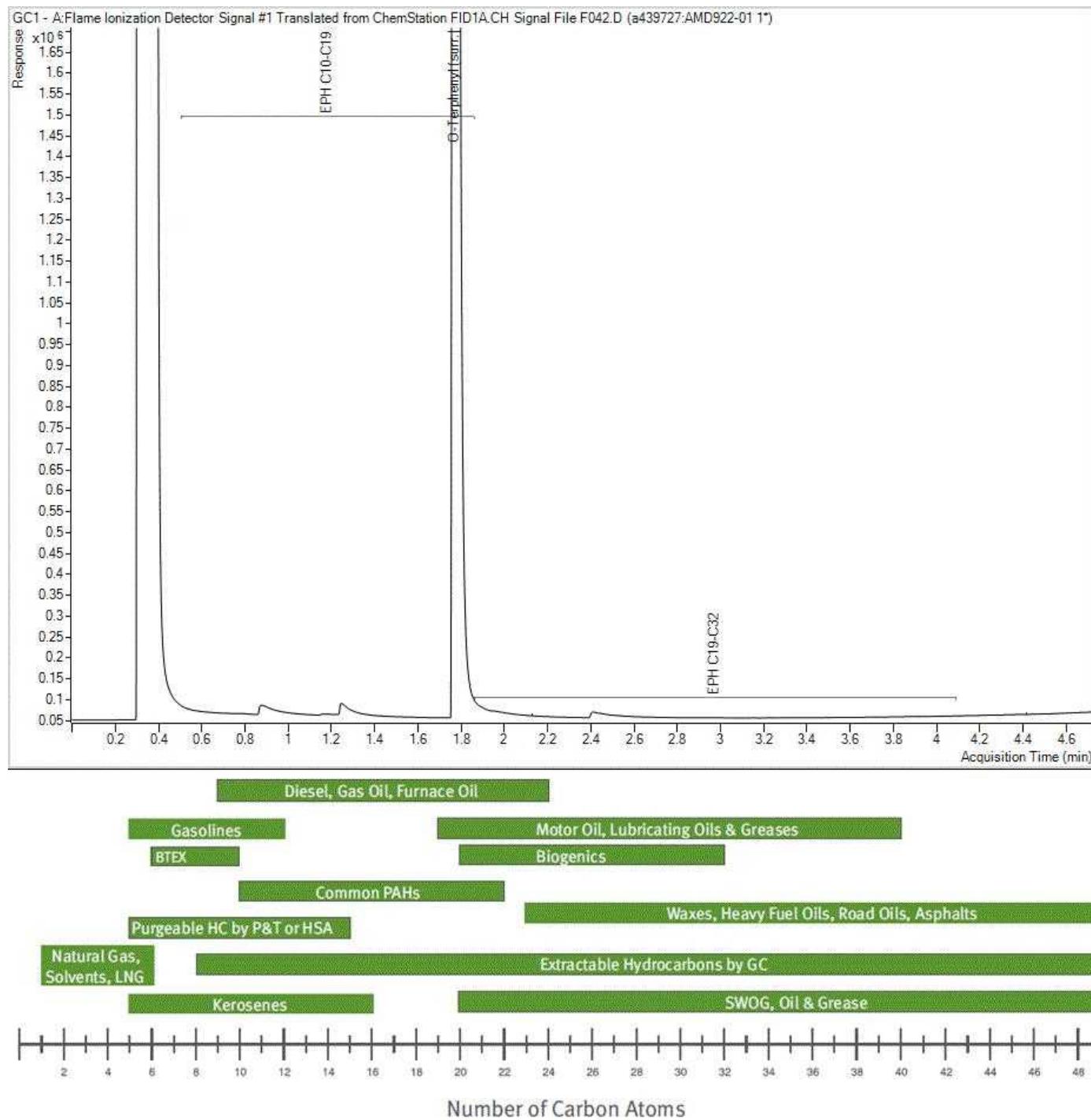


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD922

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-09, SA01

### EPH in Soil by GC/FID Chromatogram

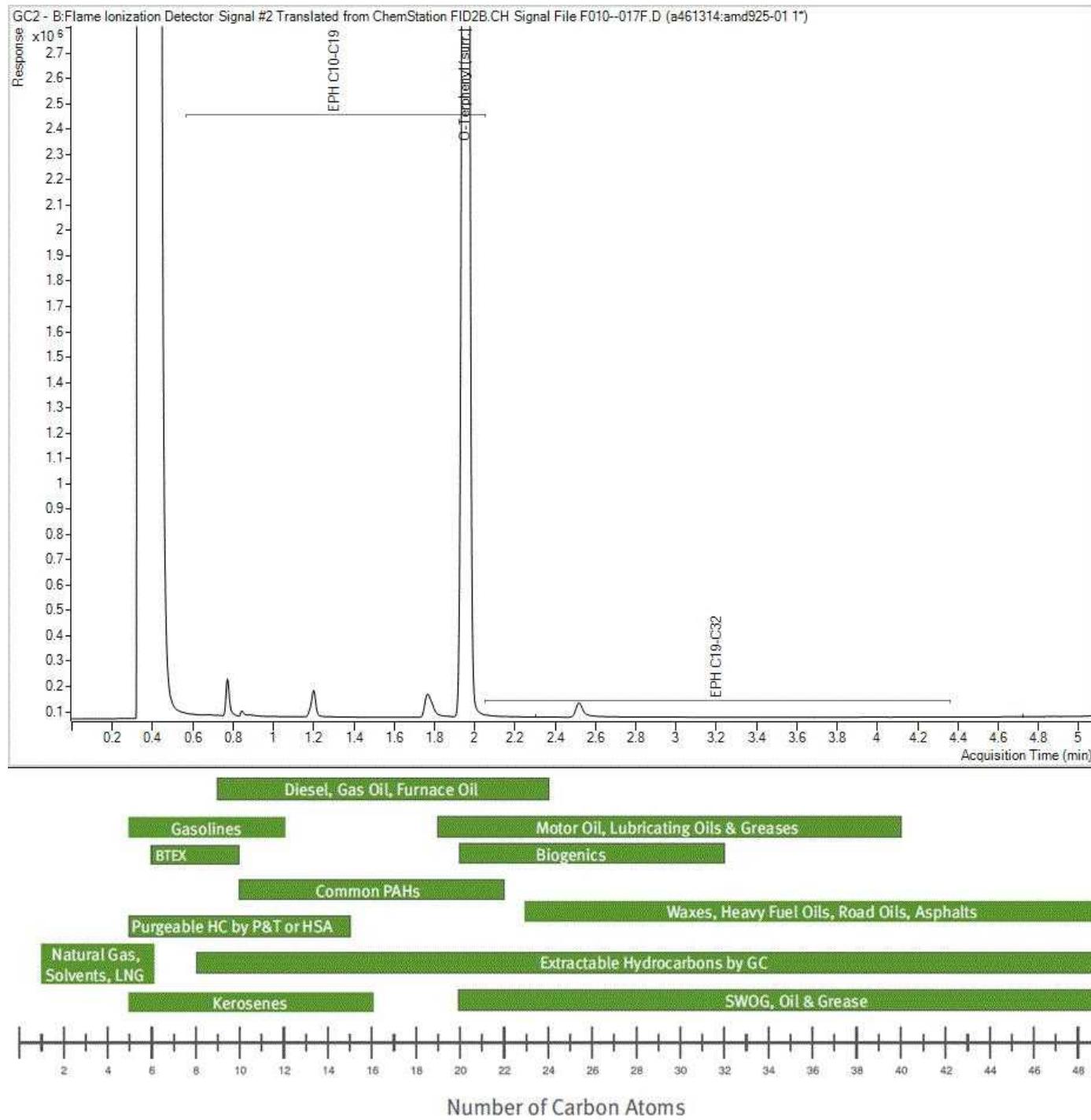


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD925

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-9, SA04

### EPH in Soil by GC/FID Chromatogram

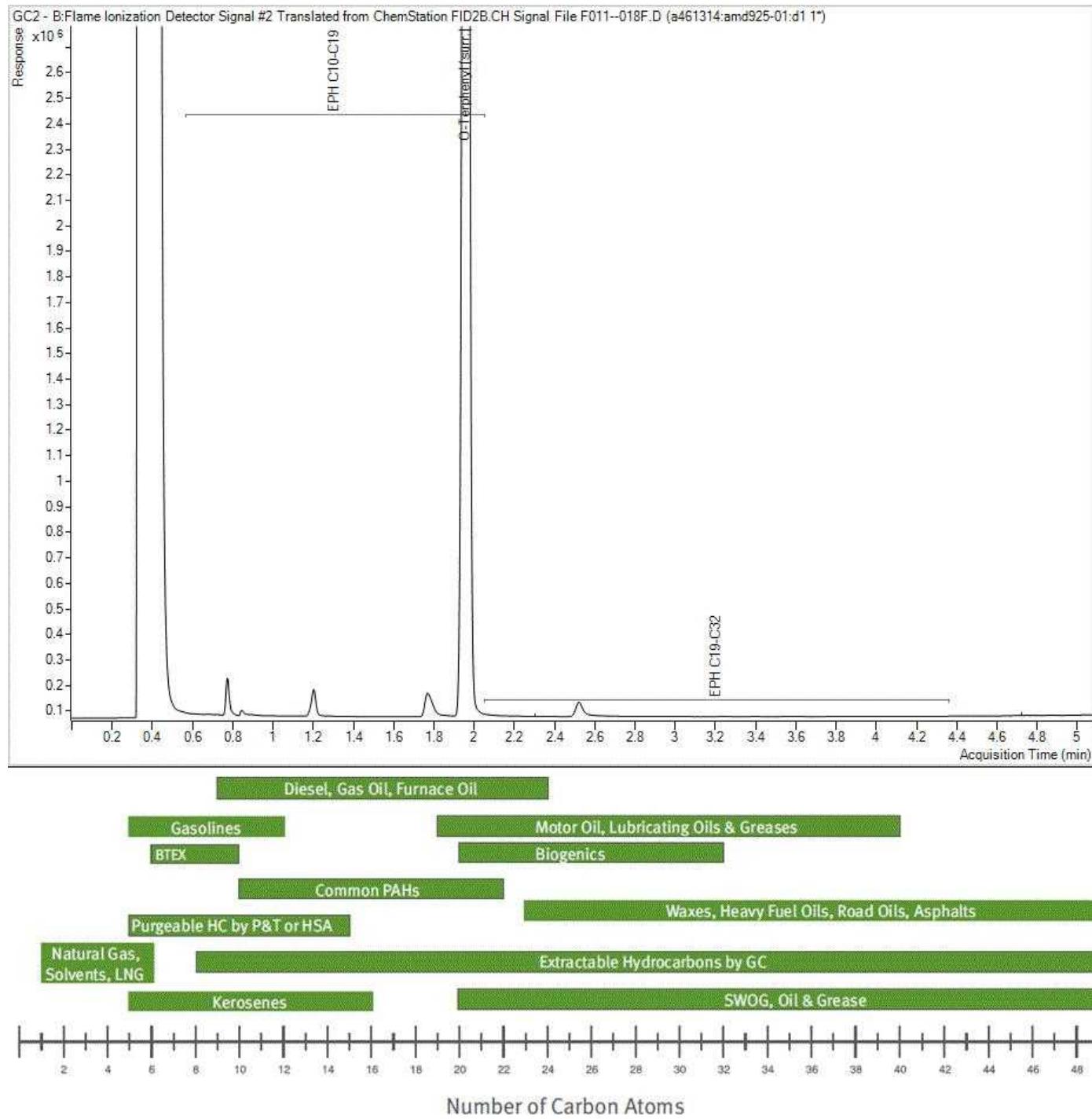


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD925 Lab-  
Dup

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-9, SA04

## EPH in Soil by GC/FID Chromatogram

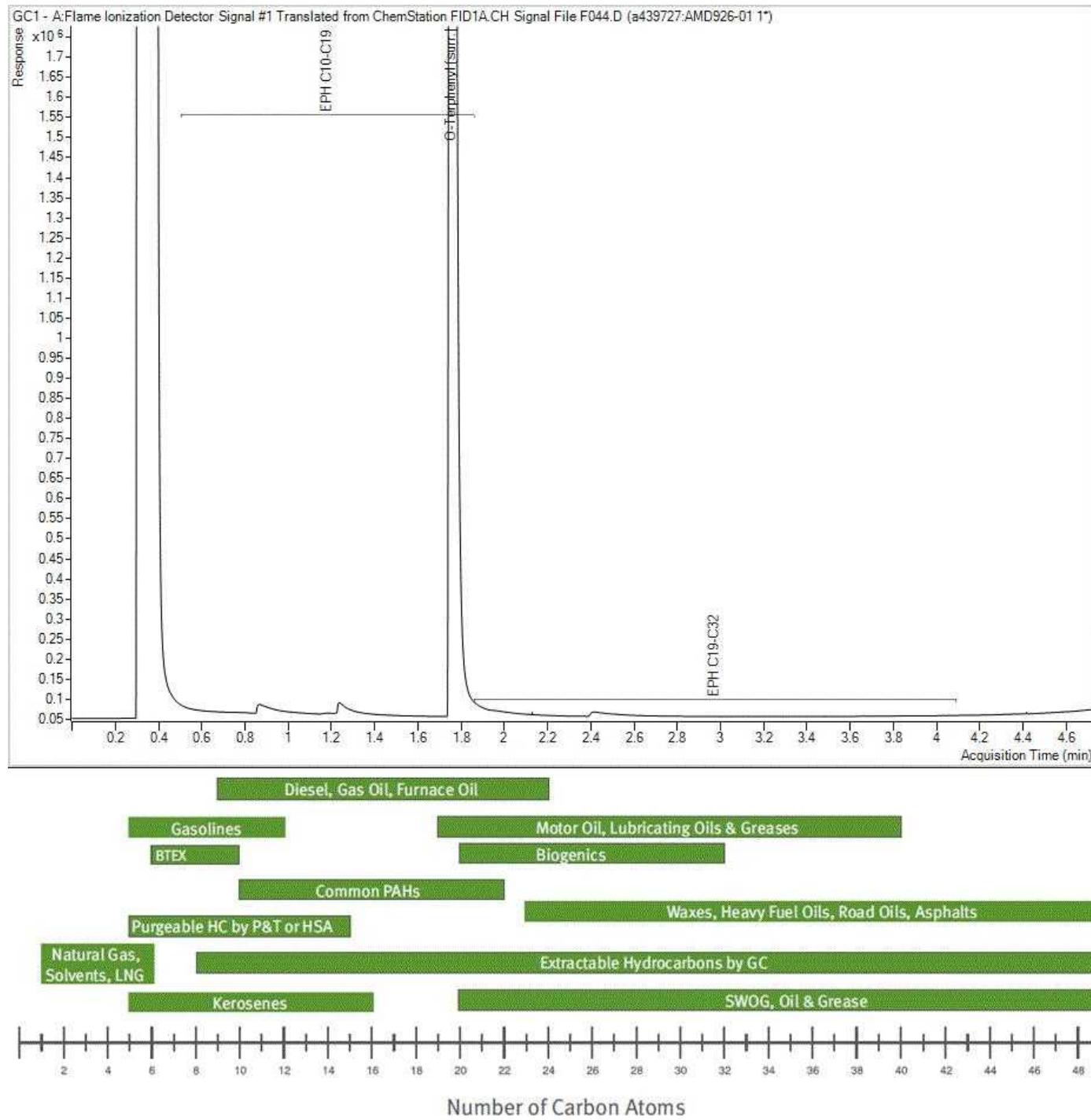


**Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.**

Bureau Veritas Job #: C195347  
Report Date: 2022/01/12  
Bureau Veritas Sample: AMD926

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Site Reference: 19125 1198 AVE, PITT MEADOWS  
Client ID: BH21-10, SA01

### EPH in Soil by GC/FID Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.



BUREAU  
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Your Project #: 123315738

**Attention: Matthew Redmond**

STANTEC CONSULTING LTD  
Metrotower III  
Suite 500, 4730 Kingsway  
BURNABY, BC  
CANADA V5H 4M1

Your C.O.C. #: G160372, G160373, G160374, G160375, G160376,  
G160380

**Report Date: 2022/01/12**

Report #: R3121092

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195368**

**Received: 2021/11/29, 10:35**

Sample Matrix: Soil  
# Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Boron (Hot Water Soluble) (1)	17	2021/12/08	2021/12/08	AB SOP-00034 / AB SOP-00042	EPA 6010d R5 m
Boron (Hot Water Soluble) (1)	2	2022/01/12	2022/01/12	AB SOP-00034 / AB SOP-00042	EPA 6010d R5 m
Chloride (soluble)	19	2021/12/01	2021/12/02	BBY6SOP-00011	SM 23 4500-Cl- E m
Soluble Chloride Ion Calc. (mg/kg)	19	N/A	2021/12/29	BBY WI-00033	Auto Calc
Hexavalent Chromium (1, 2)	17	2021/12/06	2021/12/06	AB SOP-00063	SM 23 3500-Cr B m
Hexavalent Chromium (1, 2)	2	2022/01/11	2022/01/11	AB SOP-00063	SM 23 3500-Cr B m
Total 1,3-Dichloropropene Calculation	10	N/A	2021/12/31		
Elements by ICPMS (total)	19	2021/12/01	2021/12/01	BBY7SOP-00004 / BBY7SOP-00001	EPA 6020b R2 m
Moisture (1)	6	N/A	2022/01/04	AB SOP-00002	CCME PHC-CWS m
Moisture (1)	2	N/A	2022/01/11	AB SOP-00002	CCME PHC-CWS m
Moisture	10	2021/12/29	2021/12/29	BBY8SOP-00017	BCMOE BCLM Dec2000 m
Moisture	1	2022/01/06	2022/01/07	BBY8SOP-00017	BCMOE BCLM Dec2000 m
Soluble Sodium Ion Calc. (mg/kg)	19	N/A	2021/12/29	BBY WI-00033	Auto Calc
PAH in Soil by GC/MS (SIM)	10	2021/11/30	2021/11/30	BBY8SOP-00022	BCMOE BCLM Jul2017m
Total PAH and B(a)P Calculation (3)	10	N/A	2022/01/05	BBY WI-00033	Auto Calc
pH (2:1 DI Water Extract)	19	2022/01/04	2022/01/04	BBY6SOP-00028	BCMOE BCLM Mar2005 m
Saturated Paste	19	2021/12/29	2021/12/29	BBY6SOP-00030	BC Lab Manual 2015 m
Soluble Cations (Ca,K,Mg,Na,S)	19	N/A	2021/12/02	BBY7SOP-00018 / BBY7SOP-00030 / BCLM Nov 2015	EPA 6010d m
EPH less PAH in Soil By GC/FID (4)	10	N/A	2022/01/05	BBY WI-00033	Auto Calc
EPH in Soil by GC/FID	10	2021/11/30	2021/11/30	BBY8SOP-00029	BCMOE BCLM Dec2016 m
VOCs, VH, F1, LH in Soil - Field Pres. (5)	5	N/A	2021/11/30	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Sep 2017m



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Your Project #: 123315738

**Attention: Matthew Redmond**

STANTEC CONSULTING LTD  
Metrotower III  
Suite 500, 4730 Kingsway  
BURNABY, BC  
CANADA V5H 4M1

Your C.O.C. #: G160372, G160373, G160374, G160375, G160376,  
G160380

**Report Date: 2022/01/12**

Report #: R3121092

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195368**

**Received: 2021/11/29, 10:35**

Sample Matrix: Soil  
# Samples Received: 19

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
VOCs, VH, F1, LH in Soil - Field Pres. (5)	5	N/A	2021/12/01	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Sep 2017m
Volatile HC-BTEX for Soil (6)	10	N/A	2021/12/31	BBY WI-00033	Auto Calc

**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.

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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) This test was performed by Bureau Veritas Calgary, 4000 - 19 St. , Calgary, AB, T2E 6P8

(2) Some soil samples may react with the Cr(VI) spike reducing it to Cr(III). These samples are highly unlikely to contain native hexavalent chromium. Thus a failed spike recovery does not invalidate a negative result on the native sample.

(3) Total PAHs in Soil include: Quinoline, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene,



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Your Project #: 123315738

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Metrotower III  
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BURNABY, BC  
CANADA V5H 4M1

Your C.O.C. #: G160372, G160373, G160374, G160375, G160376,  
G160380

**Report Date: 2022/01/12**

Report #: R3121092

Version: 1 - Final

**CERTIFICATE OF ANALYSIS**

**BV LABS JOB #: C195368**

**Received: 2021/11/29, 10:35**

Acridine, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b&j)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene, and Benzo(g,h,i)perylene.

Total PAHs in Sediment include (B.C. Reg. 116/2018, Schedule 3.4): Naphthalene, 2-Methylnaphthalene, Acenaphthylene, Acenaphthene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(a)pyrene, and Dibenz(a,h)anthracene.

(4) LEPH = EPH (C10 to C19) - (Naphthalene + Phenanthrene)

HEPH = EPH (C19 to C32) - (Benzo(a)anthracene + Benzo(a)pyrene + Benzo(b)fluoranthene + Benzo(k)fluoranthene + Dibenz(a,h)anthracene + Indeno(1,2,3-cd)pyrene + Pyrene)

(5) The extraction date for VOC, BTEX, VH, or F1 samples that are field preserved with methanol equals the date sampled, unless otherwise stated.

(6) VPH = VH - (Benzene + Toluene + Ethylbenzene + m & p-Xylene + o-Xylene + Styrene)

**Encryption Key**

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Geraldyn Gouthro, Key Account Specialist

Email: geraldyn.gouthro@bureauveritas.com

Phone# (780)577-7173

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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.



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### RESULTS OF CHEMICAL ANALYSES OF SOIL

Bureau Veritas ID		AME006		AME010			AME010		
Sampling Date		2021/11/26 08:45		2021/11/26 09:05			2021/11/26 09:05		
COC Number		G160372		G160372			G160372		
	UNITS	MW21-01 SA01	QC Batch	MW21-01 SA05	RDL	QC Batch	MW21-01 SA05 Lab-Dup	RDL	QC Batch

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	A461520	<0.10	0.10	A461520	<0.10	0.10	A461520
Hex. Chromium (Cr 6+)	mg/kg	<0.080	A440981	<0.080	0.080	A452280			

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		AME012			AME012			AME014		
Sampling Date		2021/11/26 09:15			2021/11/26 09:15			2021/11/26 08:45		
COC Number		G160372			G160372			G160372		
	UNITS	MW21-01 SA07	RDL	QC Batch	MW21-01 SA07 Lab-Dup	RDL	QC Batch	DUP21-01	RDL	QC Batch

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	0.10	A469523	<0.10	0.10	A469523	<0.10	0.10	A461520
Hex. Chromium (Cr 6+)	mg/kg	<0.080	0.080	A468695				<0.080	0.080	A452280

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		AME017	AME018	AME021	AME025	AME029	AME031			
Sampling Date		2021/11/26 10:20	2021/11/26 10:25	2021/11/26 10:40	2021/11/26 11:25	2021/11/26 11:35	2021/11/26 11:45			
COC Number		G160373	G160373	G160373	G160373	G160374	G160374			
	UNITS	BH21-02 SA01	BH21-02 SA02	BH21-02 SA05	BH21-03 SA01	BH21-03 SA03	BH21-03 SA05	RDL	QC Batch	

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A461520
Hex. Chromium (Cr 6+)	mg/kg	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.080	A452280

RDL = Reportable Detection Limit



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### RESULTS OF CHEMICAL ANALYSES OF SOIL

Bureau Veritas ID		AME036		AME037		AME052	AME056		
Sampling Date		2021/11/26 14:50		2021/11/26 12:45		2021/11/26 13:05	2021/11/26 14:30		
COC Number		G160374		G160374		G160375	G160375		
	UNITS	DUP21-04	QC Batch	MW21-04 SA01	QC Batch	MW21-04 SA05	BH21-05 SA01	RDL	QC Batch

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	A461520	<0.10	A469523	<0.10	<0.10	0.10	A461520
Hex. Chromium (Cr 6+)	mg/kg	<0.080	A452280	<0.080	A468695	<0.080	<0.080	0.080	A452280

RDL = Reportable Detection Limit

Bureau Veritas ID		AME058	AME068	AME072	AME073	AME076		
Sampling Date		2021/11/26 14:40	2021/11/26 14:50	2021/11/26 15:35	2021/11/26 15:40	2021/11/26 15:55		
COC Number		G160375	G160376	G160376	G160376	G160376		
	UNITS	BH21-05 SA03	BH21-05 SA05	MW21-06 SA01	MW21-06 SA02	MW21-06 SA05	RDL	QC Batch

#### Elements

Soluble (Hot water) Boron (B)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A461520	
Hex. Chromium (Cr 6+)	mg/kg	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	0.080	A452280

RDL = Reportable Detection Limit

Bureau Veritas ID		AME076		
Sampling Date		2021/11/26 15:55		
COC Number		G160376		
	UNITS	MW21-06 SA05 Lab-Dup	RDL	QC Batch

Elements				
Hex. Chromium (Cr 6+)	mg/kg	<0.080	0.080	A452280

RDL = Reportable Detection Limit
Lab-Dup = Laboratory Initiated Duplicate



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### PHYSICAL TESTING (SOIL)

Bureau Veritas ID		AME006	AME006	AME010		AME012		
Sampling Date		2021/11/26 08:45	2021/11/26 08:45	2021/11/26 09:05		2021/11/26 09:15		
COC Number		G160372	G160372	G160372		G160372		
	UNITS	MW21-01 SA01	MW21-01 SA01 Lab-Dup	MW21-01 SA05	QC Batch	MW21-01 SA07	RDL	QC Batch

#### Physical Properties

Moisture	%	34	33	12	A447028	17	0.30	A468570
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RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		AME014		AME017	AME018		AME021	AME025		
Sampling Date		2021/11/26 08:45		2021/11/26 10:20	2021/11/26 10:25		2021/11/26 10:40	2021/11/26 11:25		
COC Number		G160372		G160373	G160373		G160373	G160373		
	UNITS	DUP21-01	QC Batch	BH21-02 SA01	BH21-02 SA02	QC Batch	BH21-02 SA05	BH21-03 SA01	RDL	QC Batch

#### Physical Properties

Moisture	%	32	A447028	19	21	A463309	7.1	24	0.30	A447028
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RDL = Reportable Detection Limit

Bureau Veritas ID		AME029		AME031		AME036		AME037		
Sampling Date		2021/11/26 11:35		2021/11/26 11:45		2021/11/26 14:50		2021/11/26 12:45		
COC Number		G160374		G160374		G160374		G160374		
	UNITS	BH21-03 SA03	QC Batch	BH21-03 SA05	QC Batch	DUP21-04	QC Batch	MW21-04 SA01	RDL	QC Batch

#### Physical Properties

Moisture	%	11	A463309	11	A447028	11	A463309	16	0.30	A468570
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RDL = Reportable Detection Limit

Bureau Veritas ID		AME052	AME056		AME058		AME068		
Sampling Date		2021/11/26 13:05	2021/11/26 14:30		2021/11/26 14:40		2021/11/26 14:50		
COC Number		G160375	G160375		G160375		G160376		
	UNITS	MW21-04 SA05	BH21-05 SA01	QC Batch	BH21-05 SA03	QC Batch	BH21-05 SA05	RDL	QC Batch

#### Physical Properties

Moisture	%	13	24	A447028	8.6	A463309	15	0.30	A447028
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RDL = Reportable Detection Limit



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### PHYSICAL TESTING (SOIL)

Bureau Veritas ID		AME072	AME072		AME073	AME073		
Sampling Date		2021/11/26 15:35	2021/11/26 15:35		2021/11/26 15:40	2021/11/26 15:40		
COC Number		G160376	G160376		G160376	G160376		
	UNITS	MW21-06 SA01 Lab-Dup		QC Batch	MW21-06 SA02 Lab-Dup		RDL	QC Batch

#### Physical Properties

Moisture	%	21	20	A465113	22	22	0.30	A463309
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RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

Bureau Veritas ID		AME076		
Sampling Date		2021/11/26 15:55		
COC Number		G160376		
	UNITS	MW21-06 SA05	RDL	QC Batch

#### Physical Properties

Moisture	%	21	0.30	A447028
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RDL = Reportable Detection Limit



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		AME006	AME010	AME014	AME021	AME025	AME031		
Sampling Date		2021/11/26 08:45	2021/11/26 09:05	2021/11/26 08:45	2021/11/26 10:40	2021/11/26 11:25	2021/11/26 11:45		
COC Number		G160372	G160372	G160372	G160373	G160373	G160374		
	UNITS	MW21-01 SA01	MW21-01 SA05	DUP21-01	BH21-02 SA05	BH21-03 SA01	BH21-03 SA05	RDL	QC Batch

#### Volatiles

1,3-Dichloropropene (total)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A458121
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RDL = Reportable Detection Limit

Bureau Veritas ID		AME052	AME056	AME068	AME076		
Sampling Date		2021/11/26 13:05	2021/11/26 14:30	2021/11/26 14:50	2021/11/26 15:55		
COC Number		G160375	G160375	G160376	G160376		
	UNITS	MW21-04 SA05	BH21-05 SA01	BH21-05 SA05	MW21-06 SA05	RDL	QC Batch

#### Volatiles

1,3-Dichloropropene (total)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A458121
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RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AME006	AME010	AME014	AME021	AME025		
Sampling Date		2021/11/26 08:45	2021/11/26 09:05	2021/11/26 08:45	2021/11/26 10:40	2021/11/26 11:25		
COC Number		G160372	G160372	G160372	G160373	G160373		
	UNITS	MW21-01 SA01	MW21-01 SA05	DUP21-01	BH21-02 SA05	BH21-03 SA01	RDL	QC Batch

#### Calculated Parameters

Low Molecular Weight PAH's	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001
High Molecular Weight PAH's	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001
Total PAH	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001

#### Polycyclic Aromatics

Quinoline	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151
Naphthalene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	A463151
1-Methylnaphthalene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151
2-Methylnaphthalene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Acenaphthylene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	A463151
Acenaphthene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	A463151
Fluorene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Phenanthrene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	A463151
Anthracene	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	A463151
Fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(a)anthracene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Chrysene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(b&j)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(b)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(k)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(a)pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Dibenz(a,h)anthracene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(g,h,i)perylene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151

#### Calculated Parameters

LEPH (C10-C19 less PAH)	mg/kg	<100	<100	<100	<100	<100	100	A458003
HEPH (C19-C32 less PAH)	mg/kg	<100	<100	<100	<100	<100	100	A458003

#### Hydrocarbons

EPH (C10-C19)	mg/kg	<100	<100	<100	<100	<100	100	A463549
EPH (C19-C32)	mg/kg	<100	<100	<100	<100	<100	100	A463549

RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

**LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)**

Bureau Veritas ID		AME006	AME010	AME014	AME021	AME025		
Sampling Date		2021/11/26 08:45	2021/11/26 09:05	2021/11/26 08:45	2021/11/26 10:40	2021/11/26 11:25		
COC Number		G160372	G160372	G160372	G160373	G160373		
	UNITS	MW21-01 SA01	MW21-01 SA05	DUP21-01	BH21-02 SA05	BH21-03 SA01	RDL	QC Batch
<b>Surrogate Recovery (%)</b>								
D10-ANTHRACENE (sur.)	%	86	85	85	86	84		A463151
D8-ACENAPHTHYLENE (sur.)	%	87	86	87	86	85		A463151
D8-NAPHTHALENE (sur.)	%	83	80	83	80	80		A463151
TERPHENYL-D14 (sur.)	%	93	92	90	92	90		A463151
O-TERPHENYL (sur.)	%	94	94	93	91	93		A463549
RDL = Reportable Detection Limit								



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AME031	AME052	AME056	AME068	AME076		
Sampling Date		2021/11/26 11:45	2021/11/26 13:05	2021/11/26 14:30	2021/11/26 14:50	2021/11/26 15:55		
COC Number		G160374	G160375	G160375	G160376	G160376		
	UNITS	BH21-03 SA05	MW21-04 SA05	BH21-05 SA01	BH21-05 SA05	MW21-06 SA05	RDL	QC Batch

#### Calculated Parameters

Low Molecular Weight PAH's	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001
High Molecular Weight PAH's	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001
Total PAH	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A458001

#### Polycyclic Aromatics

Quinoline	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151
Naphthalene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	A463151
1-Methylnaphthalene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151
2-Methylnaphthalene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Acenaphthylene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	A463151
Acenaphthene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	A463151
Fluorene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Phenanthrene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	A463151
Anthracene	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	A463151
Fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(a)anthracene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Chrysene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(b&j)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(b)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(k)fluoranthene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(a)pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Dibenz(a,h)anthracene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A463151
Benzo(g,h,i)perylene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A463151

#### Calculated Parameters

LEPH (C10-C19 less PAH)	mg/kg	<100	<100	<100	<100	<100	100	A458003
HEPH (C19-C32 less PAH)	mg/kg	<100	<100	<100	<100	<100	100	A458003

#### Hydrocarbons

EPH (C10-C19)	mg/kg	<100	<100	<100	<100	<100	100	A463549
EPH (C19-C32)	mg/kg	<100	<100	<100	<100	<100	100	A463549

RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)

Bureau Veritas ID		AME031	AME052	AME056	AME068	AME076		
Sampling Date		2021/11/26 11:45	2021/11/26 13:05	2021/11/26 14:30	2021/11/26 14:50	2021/11/26 15:55		
COC Number		G160374	G160375	G160375	G160376	G160376		
	UNITS	BH21-03 SA05	MW21-04 SA05	BH21-05 SA01	BH21-05 SA05	MW21-06 SA05	RDL	QC Batch
Surrogate Recovery (%)								
D10-ANTHRACENE (sur.)	%	83	82	84	84	82		A463151
D8-ACENAPHTHYLENE (sur.)	%	84	83	86	84	83		A463151
D8-NAPHTHALENE (sur.)	%	77	77	82	77	77		A463151
TERPHENYL-D14 (sur.)	%	89	89	91	90	88		A463151
O-TERPHENYL (sur.)	%	92	94	94	95	94		A463549
RDL = Reportable Detection Limit								

BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

**LEPH & HEPH WITH PAH FOR CSR IN SOIL (SOIL)**

Bureau Veritas ID		AME076		
Sampling Date		2021/11/26 15:55		
COC Number		G160376		
	UNITS	MW21-06 SA05 Lab-Dup	RDL	QC Batch

**Polycyclic Aromatics**

Quinoline	mg/kg	<0.050	0.050	A463151
Naphthalene	mg/kg	<0.010	0.010	A463151
1-Methylnaphthalene	mg/kg	<0.050	0.050	A463151
2-Methylnaphthalene	mg/kg	<0.020	0.020	A463151
Acenaphthylene	mg/kg	<0.0050	0.0050	A463151
Acenaphthene	mg/kg	<0.0050	0.0050	A463151
Fluorene	mg/kg	<0.020	0.020	A463151
Phenanthrene	mg/kg	<0.010	0.010	A463151
Anthracene	mg/kg	<0.0040	0.0040	A463151
Fluoranthene	mg/kg	<0.020	0.020	A463151
Pyrene	mg/kg	<0.020	0.020	A463151
Benzo(a)anthracene	mg/kg	<0.020	0.020	A463151
Chrysene	mg/kg	<0.020	0.020	A463151
Benzo(b&j)fluoranthene	mg/kg	<0.020	0.020	A463151
Benzo(b)fluoranthene	mg/kg	<0.020	0.020	A463151
Benzo(k)fluoranthene	mg/kg	<0.020	0.020	A463151
Benzo(a)pyrene	mg/kg	<0.020	0.020	A463151
Indeno(1,2,3-cd)pyrene	mg/kg	<0.020	0.020	A463151
Dibenz(a,h)anthracene	mg/kg	<0.020	0.020	A463151
Benzo(g,h,i)perylene	mg/kg	<0.050	0.050	A463151

**Hydrocarbons**

EPH (C10-C19)	mg/kg	<100	100	A463549
EPH (C19-C32)	mg/kg	<100	100	A463549

**Surrogate Recovery (%)**

D10-ANTHRACENE (sur.)	%	84		A463151
D8-ACENAPHTHYLENE (sur.)	%	85		A463151
D8-NAPHTHALENE (sur.)	%	79		A463151
TERPHENYL-D14 (sur.)	%	89		A463151
O-TERPHENYL (sur.)	%	93		A463549

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME006	AME010			AME010		
Sampling Date		2021/11/26 08:45	2021/11/26 09:05			2021/11/26 09:05		
COC Number		G160372	G160372			G160372		
	UNITS	MW21-01 SA01	MW21-01 SA05	RDL	QC Batch	MW21-01 SA05 Lab-Dup	RDL	QC Batch

#### Physical Properties

Soluble (2:1) pH	pH	6.47	6.59	N/A	A463493			
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	27100	9110	100	A460002	10400	100	A460002
Total Antimony (Sb)	mg/kg	0.25	0.12	0.10	A460002	0.15	0.10	A460002
Total Arsenic (As)	mg/kg	5.01	1.65	0.20	A460002	1.72	0.20	A460002
Total Barium (Ba)	mg/kg	67.8	35.9	0.10	A460002	32.9	0.10	A460002
Total Beryllium (Be)	mg/kg	0.40	<0.20	0.20	A460002	<0.20	0.20	A460002
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	0.10	A460002	<0.10	0.10	A460002
Total Boron (B)	mg/kg	2.7	2.2	1.0	A460002	2.0	1.0	A460002
Total Cadmium (Cd)	mg/kg	0.098	<0.050	0.050	A460002	<0.050	0.050	A460002
Total Calcium (Ca)	mg/kg	2570	3080	100	A460002	3790	100	A460002
Total Chromium (Cr)	mg/kg	31.2	23.0	0.50	A460002	17.5	0.50	A460002
Total Cobalt (Co)	mg/kg	7.64	4.38	0.10	A460002	4.72	0.10	A460002
Total Copper (Cu)	mg/kg	20.2	10.7	0.50	A460002	11.9	0.50	A460002
Total Iron (Fe)	mg/kg	22800	12700	100	A460002	14500	100	A460002
Total Lead (Pb)	mg/kg	5.17	1.43	0.10	A460002	1.59	0.10	A460002
Total Lithium (Li)	mg/kg	9.39	5.78	0.50	A460002	6.61	0.50	A460002
Total Magnesium (Mg)	mg/kg	3030	5000	100	A460002	5430	100	A460002
Total Manganese (Mn)	mg/kg	413	204	0.20	A460002	224	0.20	A460002
Total Mercury (Hg)	mg/kg	0.104	<0.050	0.050	A460002	<0.050	0.050	A460002
Total Molybdenum (Mo)	mg/kg	0.85	0.21	0.10	A460002	0.23	0.10	A460002
Total Nickel (Ni)	mg/kg	22.1	14.7	0.50	A460002	16.6	0.50	A460002
Total Phosphorus (P)	mg/kg	891	316	10	A460002	414	10	A460002
Total Potassium (K)	mg/kg	391	453	100	A460002	520	100	A460002
Total Selenium (Se)	mg/kg	0.51	<0.50	0.50	A460002	<0.50	0.50	A460002
Total Silver (Ag)	mg/kg	0.100	<0.050	0.050	A460002	<0.050	0.050	A460002
Total Sodium (Na)	mg/kg	<100	202	100	A460002	265	100	A460002
Total Strontium (Sr)	mg/kg	16.7	17.5	0.10	A460002	17.2	0.10	A460002
Total Thallium (Tl)	mg/kg	0.091	<0.050	0.050	A460002	<0.050	0.050	A460002

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



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VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME006	AME010			AME010		
Sampling Date		2021/11/26 08:45	2021/11/26 09:05			2021/11/26 09:05		
COC Number		G160372	G160372			G160372		
	UNITS	MW21-01 SA01	MW21-01 SA05	RDL	QC Batch	MW21-01 SA05 Lab-Dup	RDL	QC Batch
Total Tin (Sn)	mg/kg	0.45	0.16	0.10	A460002	0.17	0.10	A460002
Total Titanium (Ti)	mg/kg	918	580	1.0	A460002	709	1.0	A460002
Total Tungsten (W)	mg/kg	<0.50	<0.50	0.50	A460002	<0.50	0.50	A460002
Total Uranium (U)	mg/kg	0.420	0.207	0.050	A460002	0.206	0.050	A460002
Total Vanadium (V)	mg/kg	56.3	33.8	1.0	A460002	39.1	1.0	A460002
Total Zinc (Zn)	mg/kg	52.2	27.3	1.0	A460002	29.0	1.0	A460002
Total Zirconium (Zr)	mg/kg	3.60	2.71	0.50	A460002	3.22	0.50	A460002
RDL = Reportable Detection Limit								
Lab-Dup = Laboratory Initiated Duplicate								



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME012	AME014	AME017	AME018	AME021	AME025		
Sampling Date		2021/11/26 09:15	2021/11/26 08:45	2021/11/26 10:20	2021/11/26 10:25	2021/11/26 10:40	2021/11/26 11:25		
COC Number		G160372	G160372	G160373	G160373	G160373	G160373		
	UNITS	MW21-01 SA07	DUP21-01	BH21-02 SA01	BH21-02 SA02	BH21-02 SA05	BH21-03 SA01	RDL	QC Batch

#### Physical Properties

Soluble (2:1) pH	pH	6.51	6.40	6.02	5.59	6.81	7.02	N/A	A463493
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	10700	27800	11900	17600	10000	27300	100	A460002
Total Antimony (Sb)	mg/kg	0.15	0.27	0.24	0.23	0.16	0.29	0.10	A460002
Total Arsenic (As)	mg/kg	1.86	5.05	2.50	4.37	2.07	5.34	0.20	A460002
Total Barium (Ba)	mg/kg	40.2	76.8	44.8	59.2	33.4	88.4	0.10	A460002
Total Beryllium (Be)	mg/kg	<0.20	0.40	<0.20	0.22	<0.20	0.32	0.20	A460002
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A460002
Total Boron (B)	mg/kg	4.1	3.2	2.4	2.6	2.3	2.9	1.0	A460002
Total Cadmium (Cd)	mg/kg	0.102	0.110	0.094	0.062	0.288	0.093	0.050	A460002
Total Calcium (Ca)	mg/kg	3850	2940	3460	1880	4110	2610	100	A460002
Total Chromium (Cr)	mg/kg	19.6	31.4	21.0	28.5	23.6	35.8	0.50	A460002
Total Cobalt (Co)	mg/kg	5.29	7.66	5.40	7.48	5.21	10.8	0.10	A460002
Total Copper (Cu)	mg/kg	11.6	20.5	14.5	20.5	11.8	34.3	0.50	A460002
Total Iron (Fe)	mg/kg	15900	23600	15000	20300	17700	26000	100	A460002
Total Lead (Pb)	mg/kg	1.75	5.59	7.75	2.72	1.73	4.25	0.10	A460002
Total Lithium (Li)	mg/kg	6.79	9.65	6.89	7.65	5.87	10.8	0.50	A460002
Total Magnesium (Mg)	mg/kg	5450	2860	4800	5460	4900	7350	100	A460002
Total Manganese (Mn)	mg/kg	234	523	224	229	210	317	0.20	A460002
Total Mercury (Hg)	mg/kg	0.052	0.118	<0.050	<0.050	<0.050	0.070	0.050	A460002
Total Molybdenum (Mo)	mg/kg	0.29	0.93	0.60	0.44	0.34	0.77	0.10	A460002
Total Nickel (Ni)	mg/kg	16.5	20.2	18.2	19.3	16.6	26.1	0.50	A460002
Total Phosphorus (P)	mg/kg	364	1020	435	419	388	458	10	A460002
Total Potassium (K)	mg/kg	542	407	488	666	471	1070	100	A460002
Total Selenium (Se)	mg/kg	<0.50	0.51	<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Silver (Ag)	mg/kg	<0.050	0.118	<0.050	<0.050	<0.050	0.071	0.050	A460002
Total Sodium (Na)	mg/kg	255	102	209	136	256	217	100	A460002
Total Strontium (Sr)	mg/kg	19.1	18.6	20.4	15.0	20.3	20.6	0.10	A460002
Total Thallium (Tl)	mg/kg	0.057	0.096	<0.050	0.059	<0.050	0.081	0.050	A460002
Total Tin (Sn)	mg/kg	0.24	0.51	0.44	0.25	0.19	0.43	0.10	A460002

RDL = Reportable Detection Limit

N/A = Not Applicable



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME012	AME014	AME017	AME018	AME021	AME025		
Sampling Date		2021/11/26 09:15	2021/11/26 08:45	2021/11/26 10:20	2021/11/26 10:25	2021/11/26 10:40	2021/11/26 11:25		
COC Number		G160372	G160372	G160373	G160373	G160373	G160373		
	UNITS	MW21-01 SA07	DUP21-01	BH21-02 SA01	BH21-02 SA02	BH21-02 SA05	BH21-03 SA01	RDL	QC Batch
Total Titanium (Ti)	mg/kg	811	966	709	912	843	1360	1.0	A460002
Total Tungsten (W)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Uranium (U)	mg/kg	0.302	0.433	0.305	0.374	0.218	0.530	0.050	A460002
Total Vanadium (V)	mg/kg	45.2	57.9	42.5	56.2	55.6	68.3	1.0	A460002
Total Zinc (Zn)	mg/kg	29.8	53.9	36.6	34.9	29.1	48.5	1.0	A460002
Total Zirconium (Zr)	mg/kg	3.53	2.93	0.95	3.83	3.76	6.46	0.50	A460002
RDL = Reportable Detection Limit									

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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

## CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME025		AME029	AME031	AME036	AME037		
Sampling Date		2021/11/26 11:25		2021/11/26 11:35	2021/11/26 11:45	2021/11/26 14:50	2021/11/26 12:45		
COC Number		G160373		G160374	G160374	G160374	G160374		
	UNITS	BH21-03 SA01 Lab-Dup	QC Batch	BH21-03 SA03	BH21-03 SA05	DUP21-04	MW21-04 SA01	RDL	QC Batch

## Physical Properties

Soluble (2:1) pH	pH	6.99	A463493	6.03	6.75	6.83	6.81	N/A	A463493
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## Total Metals by ICPMS

Total Aluminum (Al)	mg/kg			10100	10800	10500	22200	100	A460002
Total Antimony (Sb)	mg/kg			0.14	0.14	0.13	0.23	0.10	A460002
Total Arsenic (As)	mg/kg			2.62	1.81	1.68	5.12	0.20	A460002
Total Barium (Ba)	mg/kg			42.9	35.8	34.2	82.2	0.10	A460002
Total Beryllium (Be)	mg/kg			<0.20	<0.20	<0.20	0.24	0.20	A460002
Total Bismuth (Bi)	mg/kg			<0.10	<0.10	<0.10	<0.10	0.10	A460002
Total Boron (B)	mg/kg			1.8	1.7	1.7	2.5	1.0	A460002
Total Cadmium (Cd)	mg/kg			<0.050	<0.050	<0.050	0.071	0.050	A460002
Total Calcium (Ca)	mg/kg			2620	3780	3500	2050	100	A460002
Total Chromium (Cr)	mg/kg			22.9	20.8	20.2	33.2	0.50	A460002
Total Cobalt (Co)	mg/kg			5.19	5.12	4.95	7.22	0.10	A460002
Total Copper (Cu)	mg/kg			12.2	12.1	16.8	21.7	0.50	A460002
Total Iron (Fe)	mg/kg			17700	16300	15100	22700	100	A460002
Total Lead (Pb)	mg/kg			1.65	1.69	1.52	3.41	0.10	A460002
Total Lithium (Li)	mg/kg			6.74	6.49	6.14	8.99	0.50	A460002
Total Magnesium (Mg)	mg/kg			4640	5170	5450	6480	100	A460002
Total Manganese (Mn)	mg/kg			185	230	227	229	0.20	A460002
Total Mercury (Hg)	mg/kg			<0.050	<0.050	<0.050	<0.050	0.050	A460002
Total Molybdenum (Mo)	mg/kg			0.24	0.32	0.39	0.50	0.10	A460002
Total Nickel (Ni)	mg/kg			22.5	15.1	16.7	22.3	0.50	A460002
Total Phosphorus (P)	mg/kg			413	406	366	376	10	A460002
Total Potassium (K)	mg/kg			419	574	529	874	100	A460002
Total Selenium (Se)	mg/kg			<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Silver (Ag)	mg/kg			<0.050	<0.050	<0.050	<0.050	0.050	A460002
Total Sodium (Na)	mg/kg			163	286	273	199	100	A460002
Total Strontium (Sr)	mg/kg			15.4	18.9	17.2	15.1	0.10	A460002
Total Thallium (Tl)	mg/kg			<0.050	<0.050	<0.050	0.061	0.050	A460002

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable



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Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME025		AME029	AME031	AME036	AME037		
Sampling Date		2021/11/26 11:25		2021/11/26 11:35	2021/11/26 11:45	2021/11/26 14:50	2021/11/26 12:45		
COC Number		G160373		G160374	G160374	G160374	G160374		
	UNITS	BH21-03 SA01 Lab-Dup	QC Batch	BH21-03 SA03	BH21-03 SA05	DUP21-04	MW21-04 SA01	RDL	QC Batch
Total Tin (Sn)	mg/kg			0.20	0.20	0.18	0.31	0.10	A460002
Total Titanium (Ti)	mg/kg			750	784	650	1140	1.0	A460002
Total Tungsten (W)	mg/kg			<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Uranium (U)	mg/kg			0.211	0.195	0.177	0.380	0.050	A460002
Total Vanadium (V)	mg/kg			54.5	47.5	40.1	63.9	1.0	A460002
Total Zinc (Zn)	mg/kg			27.3	29.4	29.4	38.4	1.0	A460002
Total Zirconium (Zr)	mg/kg			3.95	3.40	3.18	6.36	0.50	A460002

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



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VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME052	AME056	AME058	AME068	AME072		
Sampling Date		2021/11/26 13:05	2021/11/26 14:30	2021/11/26 14:40	2021/11/26 14:50	2021/11/26 15:35		
COC Number		G160375	G160375	G160375	G160376	G160376		
	UNITS	MW21-04 SA05	BH21-05 SA01	BH21-05 SA03	BH21-05 SA05	MW21-06 SA01	RDL	QC Batch

#### Physical Properties

Soluble (2:1) pH	pH	6.02	6.90	7.13	6.34	6.69	N/A	A463493
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	10000	24900	10800	10600	14100	100	A460002
Total Antimony (Sb)	mg/kg	0.21	0.14	0.14	0.15	0.32	0.10	A460002
Total Arsenic (As)	mg/kg	1.96	4.83	2.52	1.82	3.12	0.20	A460002
Total Barium (Ba)	mg/kg	32.8	64.7	34.1	41.4	53.6	0.10	A460002
Total Beryllium (Be)	mg/kg	<0.20	0.38	<0.20	<0.20	0.23	0.20	A460002
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A460002
Total Boron (B)	mg/kg	1.7	1.9	1.5	1.8	1.7	1.0	A460002
Total Cadmium (Cd)	mg/kg	<0.050	0.070	<0.050	<0.050	0.141	0.050	A460002
Total Calcium (Ca)	mg/kg	3470	2280	3180	3580	3070	100	A460002
Total Chromium (Cr)	mg/kg	26.5	27.9	23.6	16.2	22.6	0.50	A460002
Total Cobalt (Co)	mg/kg	5.33	7.26	5.86	4.83	5.38	0.10	A460002
Total Copper (Cu)	mg/kg	12.3	14.2	12.8	11.5	16.5	0.50	A460002
Total Iron (Fe)	mg/kg	21400	22800	16400	14600	14100	100	A460002
Total Lead (Pb)	mg/kg	1.54	3.91	1.88	1.58	11.2	0.10	A460002
Total Lithium (Li)	mg/kg	5.90	10.3	7.24	6.22	7.01	0.50	A460002
Total Magnesium (Mg)	mg/kg	4930	4720	5240	5150	4420	100	A460002
Total Manganese (Mn)	mg/kg	216	388	234	223	205	0.20	A460002
Total Mercury (Hg)	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A460002
Total Molybdenum (Mo)	mg/kg	0.36	0.79	0.27	0.34	0.52	0.10	A460002
Total Nickel (Ni)	mg/kg	16.9	20.5	19.2	14.4	18.7	0.50	A460002
Total Phosphorus (P)	mg/kg	352	1400	444	355	432	10	A460002
Total Potassium (K)	mg/kg	493	552	517	546	481	100	A460002
Total Selenium (Se)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Silver (Ag)	mg/kg	<0.050	0.103	<0.050	<0.050	<0.050	0.050	A460002
Total Sodium (Na)	mg/kg	248	306	246	251	144	100	A460002
Total Strontium (Sr)	mg/kg	18.0	16.0	19.0	17.3	20.1	0.10	A460002
Total Thallium (Tl)	mg/kg	<0.050	0.070	<0.050	<0.050	<0.050	0.050	A460002
Total Tin (Sn)	mg/kg	0.19	0.42	0.18	0.19	0.46	0.10	A460002

RDL = Reportable Detection Limit

N/A = Not Applicable



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

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### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME052	AME056	AME058	AME068	AME072		
Sampling Date		2021/11/26 13:05	2021/11/26 14:30	2021/11/26 14:40	2021/11/26 14:50	2021/11/26 15:35		
COC Number		G160375	G160375	G160375	G160376	G160376		
	UNITS	MW21-04 SA05	BH21-05 SA01	BH21-05 SA03	BH21-05 SA05	MW21-06 SA01	RDL	QC Batch
Total Titanium (Ti)	mg/kg	806	972	702	694	698	1.0	A460002
Total Tungsten (W)	mg/kg	<0.50	<0.50	<0.50	<0.50	<0.50	0.50	A460002
Total Uranium (U)	mg/kg	0.215	0.403	0.205	0.177	0.441	0.050	A460002
Total Vanadium (V)	mg/kg	71.1	56.0	44.3	39.4	47.4	1.0	A460002
Total Zinc (Zn)	mg/kg	28.4	45.7	28.4	28.9	37.0	1.0	A460002
Total Zirconium (Zr)	mg/kg	3.54	4.54	3.46	3.35	1.00	0.50	A460002
RDL = Reportable Detection Limit								



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Bureau Veritas Job #: C195368

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### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME073	AME076		
Sampling Date		2021/11/26 15:40	2021/11/26 15:55		
COC Number		G160376	G160376		
	UNITS	MW21-06 SA02	MW21-06 SA05	RDL	QC Batch

#### Physical Properties

Soluble (2:1) pH	pH	5.86	6.10	N/A	A463493
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#### Total Metals by ICPMS

Total Aluminum (Al)	mg/kg	22600	19000	100	A460002
Total Antimony (Sb)	mg/kg	0.25	0.17	0.10	A460002
Total Arsenic (As)	mg/kg	4.56	3.11	0.20	A460002
Total Barium (Ba)	mg/kg	82.2	33.9	0.10	A460002
Total Beryllium (Be)	mg/kg	0.27	0.26	0.20	A460002
Total Bismuth (Bi)	mg/kg	<0.10	<0.10	0.10	A460002
Total Boron (B)	mg/kg	2.1	2.0	1.0	A460002
Total Cadmium (Cd)	mg/kg	0.082	<0.050	0.050	A460002
Total Calcium (Ca)	mg/kg	1700	2290	100	A460002
Total Chromium (Cr)	mg/kg	32.3	22.3	0.50	A460002
Total Cobalt (Co)	mg/kg	7.95	4.94	0.10	A460002
Total Copper (Cu)	mg/kg	19.2	10.7	0.50	A460002
Total Iron (Fe)	mg/kg	22700	15500	100	A460002
Total Lead (Pb)	mg/kg	3.87	1.91	0.10	A460002
Total Lithium (Li)	mg/kg	8.68	5.54	0.50	A460002
Total Magnesium (Mg)	mg/kg	5420	4550	100	A460002
Total Manganese (Mn)	mg/kg	248	225	0.20	A460002
Total Mercury (Hg)	mg/kg	0.064	<0.050	0.050	A460002
Total Molybdenum (Mo)	mg/kg	0.50	0.42	0.10	A460002
Total Nickel (Ni)	mg/kg	21.6	15.1	0.50	A460002
Total Phosphorus (P)	mg/kg	438	356	10	A460002
Total Potassium (K)	mg/kg	534	340	100	A460002
Total Selenium (Se)	mg/kg	<0.50	<0.50	0.50	A460002
Total Silver (Ag)	mg/kg	0.056	0.093	0.050	A460002
Total Sodium (Na)	mg/kg	109	157	100	A460002
Total Strontium (Sr)	mg/kg	14.1	13.1	0.10	A460002
Total Thallium (Tl)	mg/kg	0.057	0.058	0.050	A460002
Total Tin (Sn)	mg/kg	0.34	0.24	0.10	A460002

RDL = Reportable Detection Limit

N/A = Not Applicable



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Client Project #: 123315738

Sampler Initials: SM

### CSR/CCME METALS IN SOIL WITH HG (SOIL)

Bureau Veritas ID		AME073	AME076		
Sampling Date		2021/11/26 15:40	2021/11/26 15:55		
COC Number		G160376	G160376		
	UNITS	MW21-06 SA02	MW21-06 SA05	RDL	QC Batch
Total Titanium (Ti)	mg/kg	1080	863	1.0	A460002
Total Tungsten (W)	mg/kg	<0.50	<0.50	0.50	A460002
Total Uranium (U)	mg/kg	0.425	0.633	0.050	A460002
Total Vanadium (V)	mg/kg	62.0	49.2	1.0	A460002
Total Zinc (Zn)	mg/kg	39.9	25.4	1.0	A460002
Total Zirconium (Zr)	mg/kg	2.69	0.84	0.50	A460002
RDL = Reportable Detection Limit					



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Bureau Veritas Job #: C195368

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Sampler Initials: SM

### SOLUBLE SODIUM AND CHLORIDE IN SOIL (SOIL)

Bureau Veritas ID		AME006		AME010			AME012		
Sampling Date		2021/11/26 08:45		2021/11/26 09:05			2021/11/26 09:15		
COC Number		G160372		G160372			G160372		
	UNITS	MW21-01 SA01	RDL	MW21-01 SA05	RDL	QC Batch	MW21-01 SA07	RDL	QC Batch

#### ANIONS

Soluble Chloride (Cl)	mg/L	13	10	12	10	A460475	39	10	A460475
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg	9.2	7.1	4.6	3.8	A458120	14.1	3.7	A458119
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Soluble Sodium (Na)	mg/kg	<3.6	3.6	3.7	1.9	A458123	5.9	1.8	A458123
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#### Soluble Parameters

Saturation %	%	71.5	N/A	37.6	N/A	A459480	36.5	N/A	A459480
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Soluble Sodium (Na)	mg/L	<5.0	5.0	9.8	5.0	A458094	16.1	5.0	A458094
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RDL = Reportable Detection Limit

N/A = Not Applicable

Bureau Veritas ID		AME014		AME017		AME018		AME021		AME025		
Sampling Date		2021/11/26 08:45		2021/11/26 10:20		2021/11/26 10:25		2021/11/26 10:40		2021/11/26 11:25		
COC Number		G160372		G160373		G160373		G160373		G160373		
	UNITS	DUP21-01	RDL	BH21-02 SA01	RDL	BH21-02 SA02	RDL	BH21-02 SA05	RDL	BH21-03 SA01	RDL	QC Batch

#### ANIONS

Soluble Chloride (Cl)	mg/L	11	10	61	10	<10	10	15	10	16	10	A460475
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg	8.5	7.5	24.3	4.0	<4.8	4.8	5.3	3.5	8.7	5.4	A458120
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Soluble Sodium (Na)	mg/kg	<3.8	3.8	4.5	2.0	3.2	2.4	6.1	1.8	6.7	2.7	A458123
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#### Soluble Parameters

Saturation %	%	75.3	N/A	40.1	N/A	47.5	N/A	35.1	N/A	54.3	N/A	A459480
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Soluble Sodium (Na)	mg/L	<5.0	5.0	11.3	5.0	6.8	5.0	17.3	5.0	12.3	5.0	A458094
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RDL = Reportable Detection Limit

N/A = Not Applicable

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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

**SOLUBLE SODIUM AND CHLORIDE IN SOIL (SOIL)**

Bureau Veritas ID		AME029		AME031		AME036		AME037		
Sampling Date		2021/11/26 11:35		2021/11/26 11:45		2021/11/26 14:50		2021/11/26 12:45		
COC Number		G160374		G160374		G160374		G160374		
	UNITS	BH21-03 SA03	RDL	BH21-03 SA05	RDL	DUP21-04	RDL	MW21-04 SA01	RDL	QC Batch

**ANIONS**

Soluble Chloride (Cl)	mg/L	62	10	24	10	108	10	209	10	A460475
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**Calculated Parameters**

Soluble Chloride (Cl)	mg/kg	22.3	3.6	8.0	3.3	36.7	3.4	98.1	4.7	A458120
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Soluble Sodium (Na)	mg/kg	7.7	1.8	5.1	1.7	9.7	1.7	25.9	2.3	A458123
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**Soluble Parameters**

Saturation %	%	35.9	N/A	33.1	N/A	34.1	N/A	46.9	N/A	A459480
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Soluble Sodium (Na)	mg/L	21.4	5.0	15.4	5.0	28.5	5.0	55.2	5.0	A458094
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RDL = Reportable Detection Limit

N/A = Not Applicable

Bureau Veritas ID		AME052		AME056		AME058		AME068		
Sampling Date		2021/11/26 13:05		2021/11/26 14:30		2021/11/26 14:40		2021/11/26 14:50		
COC Number		G160375		G160375		G160375		G160376		
	UNITS	MW21-04 SA05	RDL	BH21-05 SA01	RDL	BH21-05 SA03	BH21-05 SA05	RDL	QC Batch	

**ANIONS**

Soluble Chloride (Cl)	mg/L	50	10	22	10	136		108	10	A460475
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**Calculated Parameters**

Soluble Chloride (Cl)	mg/kg	17.0	3.4	11.5	5.2	46.3		36.6	3.4	A458120
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Soluble Sodium (Na)	mg/kg	9.6	1.7	29.5	2.6	9.8		9.4	1.7	A458123
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**Soluble Parameters**

Saturation %	%	34.1	N/A	52.5	N/A	34.0		34.0	N/A	A459480
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Soluble Sodium (Na)	mg/L	28.1	5.0	56.3	5.0	28.7		27.5	5.0	A458094
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RDL = Reportable Detection Limit

N/A = Not Applicable



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Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### SOLUBLE SODIUM AND CHLORIDE IN SOIL (SOIL)

Bureau Veritas ID		AME068			AME072			AME073		
Sampling Date		2021/11/26 14:50			2021/11/26 15:35			2021/11/26 15:40		
COC Number		G160376			G160376			G160376		
	UNITS	BH21-05 SA05 Lab-Dup	RDL	QC Batch	MW21-06 SA01	RDL	QC Batch	MW21-06 SA02	RDL	QC Batch

#### ANIONS

Soluble Chloride (Cl)	mg/L	108	10	A460475	10	10	A460475	13	10	A460475
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg				6.2	6.1	A458120	6.4	5.0	A458119
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Soluble Sodium (Na)	mg/kg				3.3	3.0	A458123	<2.5	2.5	A458123
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#### Soluble Parameters

Saturation %	%	34.0	N/A	A459480	61.0	N/A	A459480	50.1	N/A	A459480
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Soluble Sodium (Na)	mg/L	27.5	5.0	A458094	5.4	5.0	A458094	<5.0	5.0	A458094
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RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate

N/A = Not Applicable

Bureau Veritas ID		AME076		
Sampling Date		2021/11/26 15:55		
COC Number		G160376		
	UNITS	MW21-06 SA05	RDL	QC Batch

#### ANIONS

Soluble Chloride (Cl)	mg/L	<10	10	A460475
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#### Calculated Parameters

Soluble Chloride (Cl)	mg/kg	<4.6	4.6	A458120
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Soluble Sodium (Na)	mg/kg	4.4	2.3	A458123
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#### Soluble Parameters

Saturation %	%	46.3	N/A	A459480
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Soluble Sodium (Na)	mg/L	9.5	5.0	A458094
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RDL = Reportable Detection Limit

N/A = Not Applicable



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

Bureau Veritas ID		AME006			AME006			AME010		
Sampling Date		2021/11/26 08:45			2021/11/26 08:45			2021/11/26 09:05		
COC Number		G160372			G160372			G160372		
	UNITS	MW21-01 SA01	RDL	QC Batch	MW21-01 SA01 Lab-Dup	RDL	QC Batch	MW21-01 SA05	RDL	QC Batch

#### Calculated Parameters

VPH (VH6 to 10 - BTEX)	mg/kg	<10	10	A457506				<10	10	A457506
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#### Volatiles

VH C6-C10	mg/kg	<10	10	A447654	<10	10	A447654	<10	10	A447654
1,1,1,2-tetrachloroethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,1,1-trichloroethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,1,2,2-tetrachloroethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,1,2-trichloroethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,1-dichloroethane	mg/kg	<0.025	0.025	A447654	<0.025	0.025	A447654	<0.025	0.025	A447654
1,1-dichloroethene	mg/kg	<0.025	0.025	A447654	<0.025	0.025	A447654	<0.025	0.025	A447654
1,2,3-trichlorobenzene	mg/kg	<0.030	0.030	A447654	<0.030	0.030	A447654	<0.030	0.030	A447654
1,2,4-trichlorobenzene	mg/kg	<0.030	0.030	A447654	<0.030	0.030	A447654	<0.030	0.030	A447654
1,2-dibromoethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,2-dichlorobenzene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,2-dichloroethane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,2-dichloropropane	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,3,5-trimethylbenzene	mg/kg	<0.20	0.20	A447654	<0.20	0.20	A447654	<0.20	0.20	A447654
1,3-dichlorobenzene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
1,4-dichlorobenzene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
Benzene	mg/kg	<0.0050	0.0050	A447654	<0.0050	0.0050	A447654	<0.0050	0.0050	A447654
Bromobenzene	mg/kg	<0.20	0.20	A447654	<0.20	0.20	A447654	<0.20	0.20	A447654
Bromodichloromethane	mg/kg	<0.050	0.050	A447654	<0.050	0.050	A447654	<0.050	0.050	A447654
Bromoform	mg/kg	<0.050	0.050	A447654	<0.050	0.050	A447654	<0.050	0.050	A447654
Bromomethane	mg/kg	<0.30	0.30	A447654	<0.30	0.30	A447654	<0.30	0.30	A447654
Carbon tetrachloride	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
Chlorobenzene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
Dibromochloromethane	mg/kg	<0.050	0.050	A447654	<0.050	0.050	A447654	<0.050	0.050	A447654
Chloroethane	mg/kg	<0.10	0.10	A447654	<0.10	0.10	A447654	<0.10	0.10	A447654
Chloroform	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
Chloromethane	mg/kg	<0.050	0.050	A447654	<0.050	0.050	A447654	<0.050	0.050	A447654
cis-1,2-dichloroethene	mg/kg	<0.030	0.030	A447654	<0.030	0.030	A447654	<0.030	0.030	A447654
cis-1,3-dichloropropene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

Bureau Veritas ID		AME006			AME006			AME010		
Sampling Date		2021/11/26 08:45			2021/11/26 08:45			2021/11/26 09:05		
COC Number		G160372			G160372			G160372		
	UNITS	MW21-01 SA01	RDL	QC Batch	MW21-01 SA01 Lab-Dup	RDL	QC Batch	MW21-01 SA05	RDL	QC Batch
Dichloromethane	mg/kg	<0.080	0.080	A447654	<0.080	0.080	A447654	<0.080	0.080	A447654
Ethylbenzene	mg/kg	<0.010	0.010	A447654	<0.010	0.010	A447654	<0.010	0.010	A447654
Hexachlorobutadiene	mg/kg	<0.20	0.20	A447654	<0.20	0.20	A447654	<0.20	0.20	A447654
Isopropylbenzene	mg/kg	<0.20	0.20	A447654	<0.20	0.20	A447654	<0.20	0.20	A447654
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	0.10	A447654	<0.10	0.10	A447654	<0.10	0.10	A447654
Styrene	mg/kg	<0.030	0.030	A447654	<0.030	0.030	A447654	<0.030	0.030	A447654
Tetrachloroethene	mg/kg	<0.010	0.010	A447654	<0.010	0.010	A447654	<0.010	0.010	A447654
Toluene	mg/kg	<0.050	0.050	A447654	<0.050	0.050	A447654	<0.050	0.050	A447654
trans-1,2-dichloroethene	mg/kg	<0.030	0.030	A447654	<0.030	0.030	A447654	<0.030	0.030	A447654
trans-1,3-dichloropropene	mg/kg	<0.020	0.020	A447654	<0.020	0.020	A447654	<0.020	0.020	A447654
Trichloroethene	mg/kg	<0.0090	0.0090	A447654	<0.0090	0.0090	A447654	<0.0090	0.0090	A447654
Trichlorofluoromethane	mg/kg	<0.20	0.20	A447654	<0.20	0.20	A447654	<0.20	0.20	A447654
Vinyl chloride	mg/kg	<0.040	0.040	A447654	<0.040	0.040	A447654	<0.040	0.040	A447654
m & p-Xylene	mg/kg	<0.040	0.040	A447654	<0.040	0.040	A447654	<0.040	0.040	A447654
o-Xylene	mg/kg	<0.040	0.040	A447654	<0.040	0.040	A447654	<0.040	0.040	A447654
Xylenes (Total)	mg/kg	<0.040	0.040	A447654	<0.040	0.040	A447654	<0.040	0.040	A447654
<b>Surrogate Recovery (%)</b>										
1,4-Difluorobenzene (sur.)	%	102		A447654	102		A447654	102		A447654
4-Bromofluorobenzene (sur.)	%	97		A447654	98		A447654	101		A447654
D10-o-Xylene (sur.)	%	96		A447654	99		A447654	98		A447654
D4-1,2-Dichloroethane (sur.)	%	108		A447654	110		A447654	107		A447654

RDL = Reportable Detection Limit

Lab-Dup = Laboratory Initiated Duplicate



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

Bureau Veritas ID		AME014	AME021	AME025	AME031	AME052		
Sampling Date		2021/11/26 08:45	2021/11/26 10:40	2021/11/26 11:25	2021/11/26 11:45	2021/11/26 13:05		
COC Number		G160372	G160373	G160373	G160374	G160375		
	UNITS	DUP21-01	BH21-02 SA05	BH21-03 SA01	BH21-03 SA05	MW21-04 SA05	RDL	QC Batch

#### Calculated Parameters

VPH (VH6 to 10 - BTEX)	mg/kg	<10	<10	<10	<10	<10	10	A457506
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#### Volatiles

VH C6-C10	mg/kg	<10	<10	<10	<10	<10	10	A447654
1,1,1,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,1,1-trichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,1,2,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,1,2-trichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,1-dichloroethane	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	A447654
1,1-dichloroethene	mg/kg	<0.025	<0.025	<0.025	<0.025	<0.025	0.025	A447654
1,2,3-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	A447654
1,2,4-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	A447654
1,2-dibromoethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichloroethane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichloropropane	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,3,5-trimethylbenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	A447654
1,3-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
1,4-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0050	A447654
Bromobenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	A447654
Bromodichloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A447654
Bromoform	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A447654
Bromomethane	mg/kg	<0.30	<0.30	<0.30	<0.30	<0.30	0.30	A447654
Carbon tetrachloride	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
Chlorobenzene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
Dibromochloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A447654
Chloroethane	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A447654
Chloroform	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
Chloromethane	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A447654
cis-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	A447654
cis-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654

RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

Bureau Veritas ID		AME014	AME021	AME025	AME031	AME052		
Sampling Date		2021/11/26 08:45	2021/11/26 10:40	2021/11/26 11:25	2021/11/26 11:45	2021/11/26 13:05		
COC Number		G160372	G160373	G160373	G160374	G160375		
	UNITS	DUP21-01	BH21-02 SA05	BH21-03 SA01	BH21-03 SA05	MW21-04 SA05	RDL	QC Batch
Dichloromethane	mg/kg	<0.080	<0.080	<0.080	<0.080	<0.080	0.080	A447654
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	A447654
Hexachlorobutadiene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	A447654
Isopropylbenzene	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	A447654
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	0.10	A447654
Styrene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	A447654
Tetrachloroethylene	mg/kg	<0.010	<0.010	0.022	<0.010	<0.010	0.010	A447654
Toluene	mg/kg	<0.050	<0.050	<0.050	<0.050	<0.050	0.050	A447654
trans-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	<0.030	<0.030	0.030	A447654
trans-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	A447654
Trichloroethylene	mg/kg	<0.0090	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	A447654
Trichlorofluoromethane	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	A447654
Vinyl chloride	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	A447654
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	A447654
o-Xylene	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	A447654
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	<0.040	<0.040	0.040	A447654
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	104	102	103	102	103		A447654
4-Bromofluorobenzene (sur.)	%	100	99	98	102	104		A447654
D10-o-Xylene (sur.)	%	105	109	110	102	104		A447654
D4-1,2-Dichloroethane (sur.)	%	109	106	106	107	107		A447654
RDL = Reportable Detection Limit								



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

<b>Bureau Veritas ID</b>		AME056	AME068	AME076		
<b>Sampling Date</b>		2021/11/26 14:30	2021/11/26 14:50	2021/11/26 15:55		
<b>COC Number</b>		G160375	G160376	G160376		
	<b>UNITS</b>	<b>BH21-05 SA01</b>	<b>BH21-05 SA05</b>	<b>MW21-06 SA05</b>	<b>RDL</b>	<b>QC Batch</b>

#### Calculated Parameters

VPH (VH6 to 10 - BTEX)	mg/kg	<10	<10	<10	10	A457506
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#### Volatiles

VH C6-C10	mg/kg	<10	<10	<10	10	A447654
1,1,1,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,1,1-trichloroethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,1,2,2-tetrachloroethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,1,2-trichloroethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,1-dichloroethane	mg/kg	<0.025	<0.025	<0.025	0.025	A447654
1,1-dichloroethene	mg/kg	<0.025	<0.025	<0.025	0.025	A447654
1,2,3-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	0.030	A447654
1,2,4-trichlorobenzene	mg/kg	<0.030	<0.030	<0.030	0.030	A447654
1,2-dibromoethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichloroethane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,2-dichloropropane	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,3,5-trimethylbenzene	mg/kg	<0.20	<0.20	<0.20	0.20	A447654
1,3-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
1,4-dichlorobenzene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
Benzene	mg/kg	<0.0050	<0.0050	<0.0050	0.0050	A447654
Bromobenzene	mg/kg	<0.20	<0.20	<0.20	0.20	A447654
Bromodichloromethane	mg/kg	<0.050	<0.050	<0.050	0.050	A447654
Bromoform	mg/kg	<0.050	<0.050	<0.050	0.050	A447654
Bromomethane	mg/kg	<0.30	<0.30	<0.30	0.30	A447654
Carbon tetrachloride	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
Chlorobenzene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
Dibromochloromethane	mg/kg	<0.050	<0.050	<0.050	0.050	A447654
Chloroethane	mg/kg	<0.10	<0.10	<0.10	0.10	A447654
Chloroform	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
Chloromethane	mg/kg	<0.050	<0.050	<0.050	0.050	A447654
cis-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	0.030	A447654
cis-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654

RDL = Reportable Detection Limit



BUREAU  
VERITAS

Bureau Veritas Job #: C195368

Report Date: 2022/01/12

STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### CSR VOC + VPH IN SOIL - FIELD PRESERVED (SOIL)

Bureau Veritas ID		AME056	AME068	AME076		
Sampling Date		2021/11/26 14:30	2021/11/26 14:50	2021/11/26 15:55		
COC Number		G160375	G160376	G160376		
	UNITS	BH21-05 SA01	BH21-05 SA05	MW21-06 SA05	RDL	QC Batch
Dichloromethane	mg/kg	<0.080	<0.080	<0.080	0.080	A447654
Ethylbenzene	mg/kg	<0.010	<0.010	<0.010	0.010	A447654
Hexachlorobutadiene	mg/kg	<0.20	<0.20	<0.20	0.20	A447654
Isopropylbenzene	mg/kg	<0.20	<0.20	<0.20	0.20	A447654
Methyl-tert-butylether (MTBE)	mg/kg	<0.10	<0.10	<0.10	0.10	A447654
Styrene	mg/kg	<0.030	<0.030	<0.030	0.030	A447654
Tetrachloroethene	mg/kg	0.13	<0.010	<0.010	0.010	A447654
Toluene	mg/kg	<0.050	<0.050	<0.050	0.050	A447654
trans-1,2-dichloroethene	mg/kg	<0.030	<0.030	<0.030	0.030	A447654
trans-1,3-dichloropropene	mg/kg	<0.020	<0.020	<0.020	0.020	A447654
Trichloroethene	mg/kg	<0.0090	<0.0090	<0.0090	0.0090	A447654
Trichlorofluoromethane	mg/kg	<0.20	<0.20	<0.20	0.20	A447654
Vinyl chloride	mg/kg	<0.040	<0.040	<0.040	0.040	A447654
m & p-Xylene	mg/kg	<0.040	<0.040	<0.040	0.040	A447654
o-Xylene	mg/kg	<0.040	<0.040	<0.040	0.040	A447654
Xylenes (Total)	mg/kg	<0.040	<0.040	<0.040	0.040	A447654
Surrogate Recovery (%)						
1,4-Difluorobenzene (sur.)	%	103	103	102		A447654
4-Bromofluorobenzene (sur.)	%	104	97	101		A447654
D10-o-Xylene (sur.)	%	102	100	99		A447654
D4-1,2-Dichloroethane (sur.)	%	108	109	106		A447654
RDL = Reportable Detection Limit						



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STANTEC CONSULTING LTD

Client Project #: 123315738

Sampler Initials: SM

### GENERAL COMMENTS

Sample AME012 [MW21-01 SA07] : Sample was analyzed past method specified hold time for Hexavalent Chromium. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

Sample AME037 [MW21-04 SA01] : Sample was analyzed past method specified hold time for Hexavalent Chromium. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised.

**Results relate only to the items tested.**



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## QUALITY ASSURANCE REPORT

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Sampler Initials: SM

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A447654	1,4-Difluorobenzene (sur.)	2021/11/30	99	50 - 140	99	50 - 140	102	%				
A447654	4-Bromofluorobenzene (sur.)	2021/11/30	109	50 - 140	107	50 - 140	98	%				
A447654	D10-o-Xylene (sur.)	2021/11/30	108	50 - 140	95	50 - 140	97	%				
A447654	D4-1,2-Dichloroethane (sur.)	2021/11/30	129	50 - 140	121	50 - 140	102	%				
A463151	D10-ANTHRACENE (sur.)	2021/11/30	79	50 - 140	80	50 - 140	87	%				
A463151	D8-ACENAPHTHYLENE (sur.)	2021/11/30	80	50 - 140	81	50 - 140	88	%				
A463151	D8-NAPHTHALENE (sur.)	2021/11/30	75	50 - 140	74	50 - 140	83	%				
A463151	TERPHENYL-D14 (sur.)	2021/11/30	86	50 - 140	88	50 - 140	95	%				
A463549	O-TERPHENYL (sur.)	2021/11/30	92	60 - 140	86	60 - 140	93	%				
A440981	Hex. Chromium (Cr 6+)	2021/12/06	112	75 - 125	115	80 - 120	<0.080	mg/kg	NC	35		
A447028	Moisture	2021/12/29					<0.30	%	3.9	20		
A447654	1,1,1,2-tetrachloroethane	2021/11/30	105	50 - 140	94	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,1,1-trichloroethane	2021/11/30	108	50 - 140	92	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,1,2,2-tetrachloroethane	2021/11/30	102	50 - 140	96	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,1,2-trichloroethane	2021/11/30	99	50 - 140	90	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,1-dichloroethane	2021/11/30	104	50 - 140	87	60 - 130	<0.025	mg/kg	NC	50		
A447654	1,1-dichloroethene	2021/11/30	116	50 - 140	83	60 - 130	<0.025	mg/kg	NC	50		
A447654	1,2,3-trichlorobenzene	2021/11/30	119	50 - 140	114	60 - 130	<0.030	mg/kg	NC	50		
A447654	1,2,4-trichlorobenzene	2021/11/30	117	50 - 140	114	60 - 130	<0.030	mg/kg	NC	50		
A447654	1,2-dibromoethane	2021/11/30	104	50 - 140	92	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,2-dichlorobenzene	2021/11/30	107	50 - 140	100	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,2-dichloroethane	2021/11/30	101	50 - 140	87	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,2-dichloropropane	2021/11/30	105	50 - 140	92	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,3,5-trimethylbenzene	2021/11/30	119	50 - 140	105	60 - 130	<0.20	mg/kg	NC	50		
A447654	1,3-dichlorobenzene	2021/11/30	108	50 - 140	98	60 - 130	<0.020	mg/kg	NC	50		
A447654	1,4-dichlorobenzene	2021/11/30	101	50 - 140	94	60 - 130	<0.020	mg/kg	NC	50		
A447654	Benzene	2021/11/30	98	50 - 140	82	60 - 130	<0.0050	mg/kg	NC	50		
A447654	Bromobenzene	2021/11/30	106	50 - 140	95	60 - 130	<0.20	mg/kg	NC	50		
A447654	Bromodichloromethane	2021/11/30	106	50 - 140	95	60 - 130	<0.050	mg/kg	NC	50		
A447654	Bromoform	2021/11/30	108	50 - 140	100	60 - 130	<0.050	mg/kg	NC	50		
A447654	Bromomethane	2021/11/30	90	50 - 140	54	50 - 140	<0.30	mg/kg	NC	50		
A447654	Carbon tetrachloride	2021/11/30	104	50 - 140	87	60 - 130	<0.020	mg/kg	NC	50		



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## QUALITY ASSURANCE REPORT(CONT'D)

STANTEC CONSULTING LTD  
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Sampler Initials: SM

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A447654	Chlorobenzene	2021/11/30	96	50 - 140	85	60 - 130	<0.020	mg/kg	NC	50		
A447654	Chloroethane	2021/11/30	105	50 - 140	71	50 - 140	<0.10	mg/kg	NC	50		
A447654	Chloroform	2021/11/30	104	50 - 140	91	60 - 130	<0.020	mg/kg	NC	50		
A447654	Chloromethane	2021/11/30	107	50 - 140	46 (1)	50 - 140	<0.050	mg/kg	NC	50		
A447654	cis-1,2-dichloroethene	2021/11/30	94	50 - 140	80	60 - 130	<0.030	mg/kg	NC	50		
A447654	cis-1,3-dichloropropene	2021/11/30	110	50 - 140	98	50 - 140	<0.020	mg/kg	NC	50		
A447654	Dibromochloromethane	2021/11/30	113	50 - 140	102	60 - 130	<0.050	mg/kg	NC	50		
A447654	Dichloromethane	2021/11/30	99	50 - 140	81	60 - 130	<0.080	mg/kg	NC	50		
A447654	Ethylbenzene	2021/11/30	111	50 - 140	97	60 - 130	<0.010	mg/kg	NC	50		
A447654	Hexachlorobutadiene	2021/11/30	108	50 - 140	104	50 - 130	<0.20	mg/kg	NC	50		
A447654	Isopropylbenzene	2021/11/30	119	50 - 140	105	60 - 130	<0.20	mg/kg	NC	50		
A447654	m & p-Xylene	2021/11/30	115	50 - 140	101	60 - 130	<0.040	mg/kg	NC	50		
A447654	Methyl-tert-butylether (MTBE)	2021/11/30	103	50 - 140	92	60 - 130	<0.10	mg/kg	NC	50		
A447654	o-Xylene	2021/11/30	117	50 - 140	104	60 - 130	<0.040	mg/kg	NC	50		
A447654	Styrene	2021/11/30	108	50 - 140	97	60 - 130	<0.030	mg/kg	NC	50		
A447654	Tetrachloroethylene	2021/11/30	102	50 - 140	87	60 - 130	<0.010	mg/kg	NC	50		
A447654	Toluene	2021/11/30	103	50 - 140	89	60 - 130	<0.050	mg/kg	NC	50		
A447654	trans-1,2-dichloroethene	2021/11/30	86	50 - 140	67	60 - 130	<0.030	mg/kg	NC	50		
A447654	trans-1,3-dichloropropene	2021/11/30	101	50 - 140	93	50 - 140	<0.020	mg/kg	NC	50		
A447654	Trichloroethene	2021/11/30	103	50 - 140	87	60 - 130	<0.0090	mg/kg	NC	50		
A447654	Trichlorofluoromethane	2021/11/30	103	50 - 140	69	60 - 130	<0.20	mg/kg	NC	50		
A447654	VH C6-C10	2021/11/30			102	70 - 130	<10	mg/kg	NC	50		
A447654	Vinyl chloride	2021/11/30	97	50 - 140	51	50 - 140	<0.040	mg/kg	NC	50		
A447654	Xylenes (Total)	2021/11/30					<0.040	mg/kg	NC	50		
A452280	Hex. Chromium (Cr 6+)	2021/12/06	111	75 - 125	111	80 - 120	<0.080	mg/kg	NC	35		
A458094	Soluble Sodium (Na)	2021/12/02	92	80 - 120	91	80 - 120	<5.0	mg/L	0.052	40	83	75 - 125
A459480	Saturation %	2021/12/29					0	%	0	30	103	75 - 125
A460002	Total Aluminum (Al)	2021/12/01	NC	75 - 125	105	75 - 125	<100	mg/kg	13	40	107	70 - 130
A460002	Total Antimony (Sb)	2021/12/01	103	75 - 125	111	75 - 125	<0.10	mg/kg	19	30	120	70 - 130
A460002	Total Arsenic (As)	2021/12/01	102	75 - 125	107	75 - 125	<0.20	mg/kg	4.1	30	87	70 - 130
A460002	Total Barium (Ba)	2021/12/01	107	75 - 125	106	75 - 125	<0.10	mg/kg	8.6	40	110	70 - 130
A460002	Total Beryllium (Be)	2021/12/01	116	75 - 125	103	75 - 125	<0.20	mg/kg	NC	30	109	70 - 130



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## QUALITY ASSURANCE REPORT(CONT'D)

STANTEC CONSULTING LTD  
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Sampler Initials: SM

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A460002	Total Bismuth (Bi)	2021/12/01	99	75 - 125	104	75 - 125	<0.10	mg/kg	NC	30		
A460002	Total Boron (B)	2021/12/01	118	75 - 125	104	75 - 125	<1.0	mg/kg	10	30		
A460002	Total Cadmium (Cd)	2021/12/01	102	75 - 125	107	75 - 125	<0.050	mg/kg	NC	30	101	70 - 130
A460002	Total Calcium (Ca)	2021/12/01	NC	75 - 125	110	75 - 125	<100	mg/kg	21	30	100	70 - 130
A460002	Total Chromium (Cr)	2021/12/01	100	75 - 125	108	75 - 125	<0.50	mg/kg	27	30	113	70 - 130
A460002	Total Cobalt (Co)	2021/12/01	100	75 - 125	106	75 - 125	<0.10	mg/kg	7.6	30	104	70 - 130
A460002	Total Copper (Cu)	2021/12/01	100	75 - 125	107	75 - 125	<0.50	mg/kg	11	30	106	70 - 130
A460002	Total Iron (Fe)	2021/12/01	NC	75 - 125	110	75 - 125	<100	mg/kg	13	30	107	70 - 130
A460002	Total Lead (Pb)	2021/12/01	100	75 - 125	105	75 - 125	<0.10	mg/kg	10	40	113	70 - 130
A460002	Total Lithium (Li)	2021/12/01	111	75 - 125	96	75 - 125	<0.50	mg/kg	13	30	111	70 - 130
A460002	Total Magnesium (Mg)	2021/12/01	NC	75 - 125	112	75 - 125	<100	mg/kg	8.2	30	110	70 - 130
A460002	Total Manganese (Mn)	2021/12/01	117	75 - 125	107	75 - 125	<0.20	mg/kg	9.1	30	112	70 - 130
A460002	Total Mercury (Hg)	2021/12/01	105	75 - 125	109	75 - 125	<0.050	mg/kg	NC	40	100	70 - 130
A460002	Total Molybdenum (Mo)	2021/12/01	104	75 - 125	108	75 - 125	<0.10	mg/kg	9.3	40	114	70 - 130
A460002	Total Nickel (Ni)	2021/12/01	99	75 - 125	106	75 - 125	<0.50	mg/kg	12	30	110	70 - 130
A460002	Total Phosphorus (P)	2021/12/01	99	75 - 125	105	75 - 125	<10	mg/kg	27	30	100	70 - 130
A460002	Total Potassium (K)	2021/12/01	121	75 - 125	109	75 - 125	<100	mg/kg	14	40	100	70 - 130
A460002	Total Selenium (Se)	2021/12/01	103	75 - 125	105	75 - 125	<0.50	mg/kg	NC	30		
A460002	Total Silver (Ag)	2021/12/01	97	75 - 125	102	75 - 125	<0.050	mg/kg	NC	40	112	70 - 130
A460002	Total Sodium (Na)	2021/12/01	124	75 - 125	113	75 - 125	<100	mg/kg	27	40	104	70 - 130
A460002	Total Strontium (Sr)	2021/12/01	113	75 - 125	108	75 - 125	<0.10	mg/kg	1.8	40	113	70 - 130
A460002	Total Thallium (Tl)	2021/12/01	102	75 - 125	106	75 - 125	<0.050	mg/kg	NC	30	97	70 - 130
A460002	Total Tin (Sn)	2021/12/01	105	75 - 125	110	75 - 125	<0.10	mg/kg	5.5	40	107	70 - 130
A460002	Total Titanium (Ti)	2021/12/01	NC	75 - 125	108	75 - 125	<1.0	mg/kg	20	40		
A460002	Total Tungsten (W)	2021/12/01	101	75 - 125	111	75 - 125	<0.50	mg/kg	NC	40		
A460002	Total Uranium (U)	2021/12/01	103	75 - 125	105	75 - 125	<0.050	mg/kg	0.52	30	111	70 - 130
A460002	Total Vanadium (V)	2021/12/01	108	75 - 125	110	75 - 125	<1.0	mg/kg	14	30	112	70 - 130
A460002	Total Zinc (Zn)	2021/12/01	100	75 - 125	107	75 - 125	<1.0	mg/kg	5.8	30	108	70 - 130
A460002	Total Zirconium (Zr)	2021/12/01	118	75 - 125	115	75 - 125	<0.50	mg/kg	17	40		
A460475	Soluble Chloride (Cl)	2021/12/02	91	75 - 125	104	80 - 120	<10	mg/L	0.24	30	88	75 - 125
A461520	Soluble (Hot water) Boron (B)	2021/12/08	117	75 - 125	110	80 - 120	<0.10	mg/kg	NC	35		
A463151	1-Methylnaphthalene	2021/11/30	78	50 - 140	81	50 - 140	<0.050	mg/kg	NC	50		



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## QUALITY ASSURANCE REPORT(CONT'D)

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QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A463151	2-Methylnaphthalene	2021/11/30	79	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A463151	Acenaphthene	2021/11/30	80	50 - 140	83	50 - 140	<0.0050	mg/kg	NC	50		
A463151	Acenaphthylene	2021/11/30	78	50 - 140	81	50 - 140	<0.0050	mg/kg	NC	50		
A463151	Anthracene	2021/11/30	76	50 - 140	80	50 - 140	<0.0040	mg/kg	NC	50		
A463151	Benzo(a)anthracene	2021/11/30	77	50 - 140	81	50 - 140	<0.020	mg/kg	NC	50		
A463151	Benzo(a)pyrene	2021/11/30	77	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A463151	Benzo(b&j)fluoranthene	2021/11/30	77	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A463151	Benzo(b)fluoranthene	2021/11/30	75	50 - 140	81	50 - 140	<0.020	mg/kg	NC	50		
A463151	Benzo(g,h,i)perylene	2021/11/30	73	50 - 140	78	50 - 140	<0.050	mg/kg	NC	50		
A463151	Benzo(k)fluoranthene	2021/11/30	78	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A463151	Chrysene	2021/11/30	77	50 - 140	81	50 - 140	<0.020	mg/kg	NC	50		
A463151	Dibenz(a,h)anthracene	2021/11/30	75	50 - 140	79	50 - 140	<0.020	mg/kg	NC	50		
A463151	Fluoranthene	2021/11/30	81	50 - 140	84	50 - 140	<0.020	mg/kg	NC	50		
A463151	Fluorene	2021/11/30	81	50 - 140	84	50 - 140	<0.020	mg/kg	NC	50		
A463151	Indeno(1,2,3-cd)pyrene	2021/11/30	78	50 - 140	82	50 - 140	<0.020	mg/kg	NC	50		
A463151	Naphthalene	2021/11/30	75	50 - 140	78	50 - 140	<0.010	mg/kg	NC	50		
A463151	Phenanthrene	2021/11/30	76	50 - 140	79	50 - 140	<0.010	mg/kg	NC	50		
A463151	Pyrene	2021/11/30	81	50 - 140	85	50 - 140	<0.020	mg/kg	NC	50		
A463151	Quinoline	2021/11/30	105	50 - 140	109	50 - 140	<0.050	mg/kg	NC	50		
A463309	Moisture	2022/01/04					<0.30	%	2.3	20		
A463493	Soluble (2:1) pH	2022/01/04			100	97 - 103			0.43	N/A		
A463549	EPH (C10-C19)	2021/11/30	95	60 - 140	78	70 - 130	<100	mg/kg	NC	40		
A463549	EPH (C19-C32)	2021/11/30	84	60 - 140	76	70 - 130	<100	mg/kg	NC	40		
A465113	Moisture	2022/01/07					<0.30	%	3.5	20		
A468570	Moisture	2022/01/11					<0.30	%	1.1	20		
A468695	Hex. Chromium (Cr 6+)	2022/01/11	94	75 - 125	103	80 - 120	<0.080	mg/kg	NC	35		



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## QUALITY ASSURANCE REPORT(CONT'D)

STANTEC CONSULTING LTD  
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Sampler Initials: SM

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
A469523	Soluble (Hot water) Boron (B)	2022/01/12	102	75 - 125	103	80 - 120	<0.10	mg/kg	NC	35		

N/A = Not Applicable

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

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

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

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) Blank spike recovery below acceptance criteria. DLC within criteria, sensitivity is not an issue. As results are non-detect, there is no impact on data quality.



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### VALIDATION SIGNATURE PAGE

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

David Huang, M.Sc., P.Chem., QP, Scientific Services Manager

Ghayasuddin Khan, M.Sc., P.Chem., QP, Scientific Specialist, Inorganics

Veronica Falk, B.Sc., P.Chem., QP, Scientific Specialist, Organics

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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.



Burnaby: 4606 Canada Way, Burnaby, BC V5G 1K5 Toll Free (833) 282-5227  
 Victoria: 851 Viewfield Road, Unit 1, Victoria, BC V8A 4V2 Toll Free (833) 282-5227  
[bvlabs.com](http://bvlabs.com)

### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required					
Company: <u>Stewart</u> Contact Name: <u>Mandy Reinhardt</u> Address: <u>502-61515 Coastal Blvd</u> PC: <u>BC</u> Phone/Fax: <u>604-466-3014</u> Email: <u>mandy.reinhardt@stakec.com</u> Copies: <u>stewart.mandy@stakec.com</u>			Company: _____ Contact Name: _____ Address: _____ PC: _____ Phone/Fax: _____ Email: _____ Copies: _____			Quotation: _____ P.O. #/AFER: _____ Project #: <u>123315P3P-200, 002</u> Site Location: _____ Site #: _____ Sampled By: <u>Stewart Mandy</u>			<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses) <b>PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS</b> Rush TAT (Surcharges will be applied) <input type="checkbox"/> Same Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 1 Day <input type="checkbox"/> 3-4 Days Date Required: _____ Rush Confirmation #: _____					
<b>Laboratory Use Only</b>														
			<b>Depot Reception</b>			Analysis Requested  # of Containers <input type="checkbox"/> BTEX / VPH <input checked="" type="checkbox"/> VOC / BTEX / VPH <input type="checkbox"/> MTBE <input type="checkbox"/> BTEX FL <input type="checkbox"/> VOC / BTEX / F1 <input type="checkbox"/> PAH <input checked="" type="checkbox"/> LEPAH / HEPH / PAH <input type="checkbox"/> Dissolved Metals <input type="checkbox"/> Filtered? <input type="checkbox"/> TEH <input type="checkbox"/> T2 - T4 <input type="checkbox"/> Preserved? <input type="checkbox"/> Dissolved Mercury <input type="checkbox"/> Field Preserved? <input type="checkbox"/> Total Metals <input type="checkbox"/> Field Preserved? <input type="checkbox"/> Total Mercury <input type="checkbox"/> Chloride <input type="checkbox"/> Sulphate <input type="checkbox"/> TDS <input type="checkbox"/> COD <input type="checkbox"/> pH <input type="checkbox"/> Conductivity <input type="checkbox"/> Nitrate <input type="checkbox"/> Alkalinity <input type="checkbox"/> Ammonia			Regulatory Criteria  <input checked="" type="checkbox"/> BC CSR <input type="checkbox"/> YK CSR <input type="checkbox"/> CCME <input type="checkbox"/> Drinking Water <input type="checkbox"/> BC Water Quality <input type="checkbox"/> Other					
Seal Present	YES	NO												
Seal Intact														
Cooling Media														
Seal Present	YES	NO												
Seal Intact														
Cooling Media														
Seal Present	YES	NO												
Seal Intact														
Cooling Media														
Sample Identification			Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix				HOLD - DO NOT ANALYZE  Special Instructions  <u>3X 10ml SOIL JARS</u> <u>&amp; 2X 50ml MTBE</u>					
1	<u>11/21/01 5A01</u>		<u>2021/11/26</u>	<u>08:45</u>	<u>Soil</u>	<u>X</u>	<u>X</u>	<u>XXX</u>						
2	<u>02</u>		<u>08:50</u>											
3	<u>03</u>		<u>08:55</u>											
4	<u>04</u>		<u>09:00</u>											
5	<u>05</u>		<u>09:05</u>											
6	<u>06</u>		<u>09:10</u>											
7	<u>07</u>		<u>09:15</u>											
8	<u>08</u>		<u>09:20</u>											
9	<u>11/21/01</u>		<u>08:45</u>			<u>XX</u>		<u>XXX</u>						
10	<u>11/21/02</u>		<u>08:20</u>			<u>XX</u>		<u>XXX</u>						
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Relinquished by: (Signature/ Print)		Date (yyyy/mm/dd)	Time (hh:mm)	Received by: (Signature/ Print)		Date (yyyy/mm/dd)	Time (hh:mm)	BV Job #						
<u>Mandy Reinhardt</u>		<u>2021/11/26</u>	<u>10:15</u>					<u>C1 368</u>						



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### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required				
Company: <i>Stantec</i>	Contact Name: <i>Mark Redmond</i>	Address: <i>500-4555 Central Blvd</i> <i>Burnaby</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <i>1233</i>	Site Location: _____	Site #: _____	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)		
Phone/Fax: <i>604-436-7066 3014</i>	Email: <i>mark.redmond@stantec.com</i>	Copies: <i>stewart.mbr@bvlabs.com</i>	PC: _____	Phone/Fax: _____	Email: _____	Sampled By: <i>Stewart MBR</i>	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS			Rush TAT [Surcharge will be applied]			
			PC: _____	Site Location: _____	Site #: _____				<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days			
			Email: _____	Site #: _____	Sampled By: <i>Stewart MBR</i>				<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days			
			Copies: _____	Analysis Requested			Date Required: _____			Rush Confirmation #: _____			
Laboratory Use Only						Regulatory Criteria							
Seal Present	YES	NO	Cooler ID		Depot Reception						<input checked="" type="checkbox"/> BC CSR		
Seal Intact			Temp.								<input type="checkbox"/> YK CSR		
Cooling Media											<input type="checkbox"/> CCME		
Seal Present	YES	NO	Cooler ID		Analysis Requested						<input type="checkbox"/> Drinking Water		
Seal Intact			Temp								<input type="checkbox"/> BC Water Quality		
Cooling Media											<input type="checkbox"/> Other: _____		
Sample Identification						Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	HOLD - DO NOT ANALYZE			Special Instructions	
1	<i>BH21-02 S101</i>	<i>2021/11/26</i>	<i>10:20</i>	<i>Soil</i>	<i>S</i>	# of Containers	<input type="checkbox"/> BTEX / VPH	<input checked="" type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> F2 / F4	<input type="checkbox"/> TEH	<input checked="" type="checkbox"/> BC CSR	
2	<i>S102</i>		<i>10:25</i>				<input type="checkbox"/> BTEX F1	<input type="checkbox"/> PAH	<input type="checkbox"/> EPH	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> YK CSR
3	<i>S103</i>		<i>10:30</i>					<input type="checkbox"/> BTEX / VPH / PAH	<input type="checkbox"/> PAH	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> CCME
4	<i>S104</i>		<i>10:35</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Drinking Water
5	<i>S105</i>		<i>10:40</i>			X	X			<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulphate	<input type="checkbox"/> COD
6	<i>S106</i>		<i>10:45</i>							<input type="checkbox"/> Chloride	<input type="checkbox"/> Fluoride	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> BC Water Quality
7	<i>S107</i>		<i>10:50</i>							<input type="checkbox"/> TDS	<input type="checkbox"/> TDS	<input type="checkbox"/> Nitrate	<input type="checkbox"/> Other: _____
8	<i>S108</i>		<i>10:55</i>							<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Ammonia	
9	<i>BH21-03 S101</i>		<i>11:25</i>			X	A						
10	<i>S102</i>		<i>11:30</i>										
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Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	BV Job #							
<i>Stewart MBR</i>	<i>2021/11/26</i>	<i>10:15</i>											



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### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required					
Company: <i>Skutec</i>	Contact Name: <i>Stewart Bedmond</i>	Address: <i>500-4015 Central Blvd</i> <i>Burnaby</i>	Company: _____	Contact name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <i>12315738</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS				
Phone/Fax: <i>604-436-3014</i>	Email: <i>stewart.bedmond@skutec.ca</i>	Copies: <i>Stewart.Bedmond@skutec.ca</i>	PC: _____	Phone/Fax: _____	Site Location: _____	Site #: _____	Sampled By: <i>Stewart MB</i>	Rush TAT (Surcharge will be applied)						
			PC: _____	Site #: _____	Sampled By: <i>Stewart MB</i>	Rush Confirmation #: _____	<input type="checkbox"/> Same Day <input type="checkbox"/> 2 Days							
							<input type="checkbox"/> 1 Day <input type="checkbox"/> 3-4 Days							
							Date Required: _____							
Laboratory Use Only														
Depot Reception														
									Analysis Requested					
									<input type="checkbox"/> VOC / MTBE / PAH / EPH / HEPA / F1 <input type="checkbox"/> VOC / BTX / VPH / BTX F1 <input type="checkbox"/> Dissolved Metals <input type="checkbox"/> Dissolved Mercury <input type="checkbox"/> Filtered? <input type="checkbox"/> Preserved? <input type="checkbox"/> Field Preserved? <input type="checkbox"/> Total Metals <input type="checkbox"/> Total Mercury <input type="checkbox"/> Chloride <input type="checkbox"/> TDS <input type="checkbox"/> pH <input type="checkbox"/> Nitrate <input type="checkbox"/> Fluoride <input type="checkbox"/> Conductivity <input type="checkbox"/> Alkalinity <input type="checkbox"/> Ammonia			Regulatory Criteria		
YES	NO	Cooler ID	Temp	YES	NO	Cooler ID	Temp	YES	NO	CO	BC CSR			
Seal Present				Seal Present				Seal Present		CSR	<input type="checkbox"/>			
Seal Intact				Seal Intact				Seal Intact		COM	<input type="checkbox"/>			
Cooling Media									Drinking Water					
									BC Water Quality					
									Other					
YES	NO	Cooler ID	Temp	YES	NO	Cooler ID	Temp	YES	NO	DO NOT ANALYZE				
Seal Present				Seal Present				Seal Present						
Seal Intact				Seal Intact				Seal Intact						
Cooling Media														
Sample Identification				Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix				Special Instructions				
1	<i>BH21-03 S103</i>	<i>2021/11/26</i>	<i>11:35</i>	<i>Soil</i>	<i>5</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>Holds and removal of charmin</i>			
2	<i>S104</i>		<i>11:40</i>			<i>X</i>	<i>X</i>				<i>11g A sample gas bottle</i>			
3	<i>S105</i>		<i>11:45</i>											
4	<i>S106</i>		<i>11:50</i>											
5	<i>S107</i>		<i>11:55</i>											
6	<i>S108</i>		<i>12:00</i>											
7	<i>DW21-03</i>		<i>13:05</i>								<i>no vials</i>			
8	<i>DW21-04</i>		<i>13:10</i>											
9	<i>DW21-04 S101</i>		<i>12:45</i>											
10	<i>S102</i>		<i>12:50</i>											
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Relinquished by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):	BV Job #						
<i>Stewart MB</i>		<i>2021/11/26</i>	<i>10:15</i>											



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### CHAIN OF CUSTODY RECORD

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Invoice Information				Report Information (If differs from invoice)			Project Information			Turnaround Time (TAT) Required															
Company: <i>Stantec</i>	Contact Name: <i>Matt Richmond</i>	Address: <i>500-4515 Central Blvd</i>	Phone/Fax: <i>6042430-8014</i>	Company: <i></i>	Contact Name: <i></i>	Address: <i></i>	Phone/Fax: <i></i>	Quotation: <i></i>	P.O. #/AFER: <i></i>	Project #: <i>12331578</i>	Rush TAT (Surcharges will be applied)														
Email: <i>mrichardson@stantec.ca</i>	Copies: <i>stantec_mrichardson@stantec.ca</i>			Email: <i></i>	Copies: <i></i>					Date Required: <i></i>	<input checked="" type="checkbox"/> 5-7 Days Regular (Most analyses) <b>PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS</b>														
											<input type="checkbox"/> Same Day <input type="checkbox"/> 2 Days <input type="checkbox"/> 1 Day <input type="checkbox"/> 3-4 Days														
											Rush Confirmation #: <i></i>														
Laboratory Use Only				Analysis Requested										Regulatory Criteria											
Seal Present:	YES	NO	Cooler ID	Depot Reception										<input checked="" type="checkbox"/> BC CSR <input type="checkbox"/> YK CSR <input type="checkbox"/> CCME <input type="checkbox"/> Drinking Water <input type="checkbox"/> BC Water Quality <input type="checkbox"/> Other											
Seal Intact:			Temp																						
Cooling Media:																									
Seal Present:	YES	NO	Cooler ID																						
Seal Intact:			Temp																						
Cooling Media:																									
Seal Present:	YES	NO	Cooler ID																						
Seal Intact:			Temp																						
Cooling Media:																									
Sample Identification				Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	Analysis Requested										Regulatory Criteria								
1	<i>11W21-04</i>	<i>SA03</i>	<i>2021/11/26</i>	<i>12:55</i>	<i>Su1</i>	<i>5</i>	<input type="checkbox"/> BTEX / VPH	<input checked="" type="checkbox"/> BTEX / BTEX / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> F2 + F4	<input type="checkbox"/> Preserved?	<input type="checkbox"/> 1TH	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulfate	<input type="checkbox"/> COD	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia	<input checked="" type="checkbox"/> BC CSR
2		<i>SA04</i>		<i>12:00</i>																					
3		<i>SA05</i>		<i>13:05</i>																					
4		<i>SA06</i>		<i>13:10</i>																					
5		<i>SA07</i>		<i>13:15</i>																					
6		<i>SA08</i>		<i>13:20</i>																					
7	<i>B+</i>	<i>SA01</i>		<i>14:30</i>																					
8		<i>SA02</i>		<i>14:35</i>																					
9		<i>SA03</i>		<i>14:40</i>																					
10		<i>SA04</i>		<i>14:45</i>																					
HOLD - DO NOT ANALYZE														Special Instructions											
<i>Metals and benzene et al. Crayon Na, Cl saturated gas Boron hot water soluble</i>																									
<i>2x jars &amp; 1 vial</i>																									
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Relinquished by: (Signature/ Print)			Date (yyyy/mm/dd):		Time (hh:mm):		Received by: (Signature/ Print)			Date (yyyy/mm/dd):		Time (hh:mm):		BV Job #											
<i>Matt Richmond</i>			<i>2021/11/26</i>		<i>10:15</i>		<i></i>			<i></i>		<i></i>		<i></i>											



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**CHAIN OF CUSTODY RECORD**

Invoice Information				Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required				
Company: <i>Shatner</i>	Company: _____	Quotation: _____	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)											
Contact Name: <i>Matt Bedford</i>	Contact Name: _____	P.O. #/AFER: _____	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS											
Address: <i>500-4515 Central Blvd Burnaby BC</i>	Address: _____	Project #: <i>12331573X</i>	Rush TAT (Surcharges will be applied)											
Phone/Fax: <i>604-496-3014</i>	Phone/Fax: _____	Site Location: _____	<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days										
Email: <i>matt.bedford@shatner.com</i>	Email: _____	Site #: _____	<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days										
Copies: <i>stewart.mbride@shatner.com</i>	Copies: _____	Sampled By: <i>Stewart McBride</i>	Date Required: _____	Rush Confirmation #: _____										
Laboratory Use Only				Analysis Requested						Regulatory Criteria				
Seal Present	YES	NO	Cooler ID	Depot Reception						<input type="checkbox"/> BC CSR				
Seal Intact			Temp							<input type="checkbox"/> VOC / BTEX / VPH	<input checked="" type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> VOC / BTEX / PAH
Cooling Media	YES	NO	Cooler ID							<input type="checkbox"/> TEH	<input type="checkbox"/> EPH	<input type="checkbox"/> TEH	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Filtered?
Seal Present			Temp	<input type="checkbox"/> BTEX / F1	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Total Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Sulphate	<input type="checkbox"/> COD	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia	
Seal Intact			Temp	<input type="checkbox"/> PAH	<input type="checkbox"/> Chloride	<input type="checkbox"/> TDS	<input type="checkbox"/> TDS	<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Fluid Preserved?	<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Nitrate		
Cooling Media	YES	NO	Cooler ID							<input type="checkbox"/> Fluoride	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	
Seal Present			Temp	<input type="checkbox"/> TEH	<input type="checkbox"/> TSS	<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Nitrate	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids		
Seal Intact			Temp	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids		
Cooling Media	YES	NO	Cooler ID							<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	<input type="checkbox"/> Dissolved Solids	
Sample Identification				Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix							HOLD - DO NOT ANALYZE	Special Instructions
1	<i>B112105 S105</i>	<i>2021/11/26</i>	<i>14:50</i>	<i>Soil</i>	<i>X</i>	<i>X</i>							<i>Metals, soluble chromium</i>	<i>XX X</i>
2	<i>S106</i>		<i>14:55</i>											<i>X</i>
3	<i>S107</i>		<i>15:00</i>											
4	<i>S108</i>		<i>15:05</i>											
5	<i>11/21/06 S101</i>		<i>15:35</i>										<i>X/X</i>	
6	<i>S102</i>		<i>15:40</i>										<i>X/X</i>	
7	<i>S103</i>		<i>15:45</i>											
8	<i>S104</i>		<i>15:50</i>											
9	<i>S105</i>		<i>15:55</i>										<i>X/X</i>	
10	<i>S106</i>		<i>16:00</i>											
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Relinquished by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):	BV Job #						
<i>Stewart McBride</i>		<i>2021/11/26</i>	<i>10:15</i>											
			<i>29</i>											

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Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	BV Job #
<i>Heather Stewart McBride</i>	2021/11/26 29	10:15				



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### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required						
Company: <u>Stewart McBride</u>	Contact Name: <u>Matt McBride</u>	Address: <u>4515 Central Blvd</u>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <u>123715 F38</u>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	<input type="checkbox"/> PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS					
Phone/Fax: <u>604-630-3014</u>	Email: <u>matthew.reed.mcbride@utoronto.ca</u>	Copies: <u>stewart.mcbride@utoronto.ca</u>	PC: _____	Phone/Fax: _____	Email: _____	Site Location: _____	Site #: _____	Sampled By: <u>Stewart McBride</u>	<input type="checkbox"/> Rush TAT (Surcharges will be applied)	<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days				
									<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days	Date Required: _____				
									Rush Confirmation #: _____						
Laboratory Use Only															
			Depot Reception			Analysis Requested						Regulatory Criteria			
Seal Present	YES	NO	Cooler ID			<input type="checkbox"/> VOC / BTEX / PAH <input type="checkbox"/> VOC / BTEX / F1 <input type="checkbox"/> PAH <input type="checkbox"/> TEH <input type="checkbox"/> EPH <input type="checkbox"/> Dissolved Metals <input type="checkbox"/> Dissolved Mercury <input type="checkbox"/> Filtered? <input type="checkbox"/> Preserved? <input type="checkbox"/> Field Preserved? <input type="checkbox"/> Total Metals <input type="checkbox"/> Total Mercury <input type="checkbox"/> Chloride <input type="checkbox"/> Fluoride <input type="checkbox"/> TDS <input type="checkbox"/> COD <input type="checkbox"/> Conductivity <input type="checkbox"/> pH <input type="checkbox"/> Nitrate <input type="checkbox"/> Ammonia						<input checked="" type="checkbox"/> BC CSR <input type="checkbox"/> YK CSR <input type="checkbox"/> CCME <input type="checkbox"/> Drinking Water <input type="checkbox"/> BC Water Quality <input type="checkbox"/> Other _____			
Seal Intact				Temp											
Cooling Media				Temp											
Seal Present	YES	NO	Cooler ID												
Seal Intact				Temp											
Cooling Media				Temp											
Sample Identification				Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	# of Containers							Special Instructions	
1	<u>11/21-06 SA07</u>		<u>2021/11/26</u>	<u>16:10</u>	<u>Soil</u>	<u>5</u>							<u>HOLD - DO NOT ANALYZE</u>		
2	<u>SA08</u>		<u>✓</u>	<u>16:15</u>	<u>✓</u>	<u>✓</u>							<u>✓</u>		
3	<u>SA0P 21-05</u>		<u>✓</u>	<u>15:35</u>	<u>✓</u>	<u>✓</u>							<u>✓</u>		
4															
5															
6															
7															
8															
9															
10															
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Relinquished by: (Signature/ Print)		Date (yyyy/mm/dd):		Time (hh:mm):		Received by: (Signature/ Print)		Date (yyyy/mm/dd):		Time (hh:mm):		BV Job #			
<u>Matthew McBride</u>		<u>2021/11/29</u>		<u>10:15</u>											



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### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required							
Company: <i>Starter</i>	Contact Name: <i>Matthew Johnson</i>	Address: <i>500-4515 Central Blvd</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <i>123315738</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS						
Phone/Fax: <i>604-426-3014</i>	Phone/Fax: <i>matthew.johnson@estarter.com</i>	Copies: <i>stewart.mbride@starter.com</i>	PC: _____	PC: _____	Site Location: _____	Rush TAT (Surcharges will be applied)										
Email: <i>matthew.johnson@estarter.com</i>	Email: <i>stewart.mbride@starter.com</i>	Copies: _____	Site #: _____	Sampled By: <i>Stewart McBride</i>	Date Required: _____	<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days									
						<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days	Rush Confirmation #: _____								
Laboratory Use Only						Analysis Requested						Regulatory Criteria				
Seal Present	YES	NO	Cooler ID	1		Depot Reception							<input checked="" type="checkbox"/> BC CSR			
Seal Intact	/	/	Temp	4	4	4	3							<input type="checkbox"/> YC CSR		
Cooling Media	/	/												<input type="checkbox"/> CCME		
Seal Present	YES	NO	Cooler ID	2		4,4,3							<input type="checkbox"/> Drinking Water			
Seal Intact	/	/	Temp	3	4	4,5							<input type="checkbox"/> BC Water Quality			
Cooling Media	/	/												<input type="checkbox"/> Other		
Seal Present	YES	NO	Cooler ID	3												
Seal Intact	/	/	Temp	4	3	3										
Cooling Media	/	/														
Sample Identification						Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	It of Containers						Special Instructions	
1	<i>MW/21-01 SA01</i>	<i>2021/11/26</i>	<i>08:45</i>	<i>Soil</i>	5	<input type="checkbox"/> BTEX / VPH	<input type="checkbox"/> VOC / BTEX / VFH	<input type="checkbox"/> MTBE	<input type="checkbox"/> PAH	<input type="checkbox"/> TEH	<input type="checkbox"/> F2 - F4	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Sulphate	<input type="checkbox"/> BC CSR	
2	<i>02</i>		<i>08:50</i>			<input type="checkbox"/> BTEX F1	<input type="checkbox"/> VOC / BTEX / F1			<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> COB	<input type="checkbox"/> YC CSR	
3	<i>03</i>		<i>08:55</i>						<input type="checkbox"/> EPAN	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> CCME	
4	<i>04</i>		<i>09:00</i>						<input type="checkbox"/> TSP	<input type="checkbox"/> TDS	<input type="checkbox"/> pH	<input type="checkbox"/> Nitrate	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Drinking Water		
5	<i>05</i>		<i>09:05</i>						<input type="checkbox"/> Chloride	<input type="checkbox"/> Fluoride	<input type="checkbox"/> TSP	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> BC Water Quality		
6	<i>06</i>		<i>09:10</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> pH	<input type="checkbox"/> Nitrate	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Other		
7	<i>07</i>		<i>09:15</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury			
8	<i>08</i>		<i>09:20</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury			
9	<i>09/21-01</i>		<i>08:45</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury			
10	<i>09/21-02</i>		<i>10:20</i>						<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Dissolved Mercury			

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Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):
<i>Stewart McBride</i>	<i>2021/11/26</i>	<i>10:15</i>	<i>JUNATHNE</i>	<i>2021/11/29</i>	<i>10:35</i>
		<i>29</i>			

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### CHAIN OF CUSTODY RECORD

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 Page 2 of 0

Invoice Information			Report Information (If differs from invoice)			Project Information			Turnaround Time (TAT) Required			
Company: <i>Stantec</i>	Contact Name: <i>Matt Redmond</i>	Address: <i>500-9515 Central Blvd Burnaby</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AE#: _____	Project #: <i>1233</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	<input type="checkbox"/> PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS		
Phone/Fax: <i>604-543-7005 ext 3014</i>	Email: <i>matt.hew:redmond@stantec.com</i>	Copies: <i>stewart.mbr@stantec.com</i>	Phone/Fax: _____	Email: _____	Copies: _____	Site Location: _____	Site #: _____	Sampled By: <i>Stewart McBride</i>	<input type="checkbox"/> Rush TAT (Surcharge will be applied)			
									<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days		
									<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-6 Days		
									Date Required: _____	Rush Confirmation #: _____		
Laboratory Use Only									Regulatory Criteria			
Seal Present	YES	NO	Cooler ID: <i>1</i>	Depot Reception  <i>4,4,3</i> <i>4,4,5</i>			IR of Containers	<input type="checkbox"/> BTEX / VPH	<input type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input checked="" type="checkbox"/> BC CSR	
Seal Intact	/	/	Temp: <i>4 4 3</i>				<input type="checkbox"/> BTEX F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> TEH	<input type="checkbox"/> T2 + T4	<input type="checkbox"/> VOC / HEPH / PAH	<input type="checkbox"/> YK CSR
Cooling Media	/	/	Cooler ID: <i>2</i>				<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> CCME
Seal Present	YES	NO	Cooler ID: <i>3</i>	<input type="checkbox"/> Total Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> pH	<input type="checkbox"/> Drinking Water			
Seal Intact	/	/	Temp: <i>4 3 3</i>	<input type="checkbox"/> Chloride	<input type="checkbox"/> Fluoride	<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulphate	<input type="checkbox"/> Conductivity	<input type="checkbox"/> BC Water Quality			
Cooling Media	/	/	Cooler ID: <i>3</i>	<input type="checkbox"/> TSS	<input type="checkbox"/> TDS	<input type="checkbox"/> TSS	<input type="checkbox"/> CO <sub>2</sub>	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Other			
									Special Instructions			
									<i>X HOLD - DO NOT ANALYZE</i>			
Sample Identification			Date Sampled: (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix							
1	<i>BH21-02 SA01</i>	<i>2021/11/26</i>	<i>10:20</i>	<i>501</i>	<i>5</i>							
2	<i>SA02</i>		<i>10:25</i>									
3	<i>SA03</i>		<i>10:30</i>									
4	<i>SA04</i>		<i>10:35</i>									
5	<i>SA05</i>		<i>10:40</i>									
6	<i>SA06</i>		<i>10:45</i>									
7	<i>SA07</i>		<i>10:50</i>									
8	<i>SA08</i>		<i>10:55</i>									
9	<i>BH21-03 SA01</i>		<i>11:25</i>									
10	<i>SA02</i>		<i>11:30</i>									
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Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):							
<i>Stewart McBride</i>	<i>2021/11/26</i>	<i>10:15</i>	<i>J.WATKINS</i>	<i>2021/11/29</i>	<i>10:35</i>							



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### CHAIN OF CUSTODY RECORD

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Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required					
Company: <i>Stantec</i>	Contact Name: <i>Matt Redmond</i>	Address: <i>500-4015 Central Blvd Burnaby</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFTER: _____	Project #: <i>123315738</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	<input type="checkbox"/> Rush TAT (Surcharges will be applied)				
Phone/Fax: <i>604-436-3014</i>	Email: <i>matt.redmond@stantec.com</i>	Copies: <i>Stewart.M.Bride@stantec.com</i>	Phone/Fax: _____	PC: _____	Site Location: _____	Site #: _____	Sampled By: <i>Stewart M Bride</i>	Date Required: _____	<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days				
			Copies: _____	Site #: _____	Sampled By: _____	Rush Confirmation #: _____				<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days			
Laboratory Use Only						Analysis Requested				Regulatory Criteria				
YES	NO	Cooler ID	Depot Reception			# of Containers								
Seal Present	/	1	4,4,3			<input type="checkbox"/> BTEX / VPH	<input type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input checked="" type="checkbox"/> BC CSR					
Seal Intact	/	Temp	4	4	3	<input type="checkbox"/> BTEX F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> LEPH / HEPH / PAR	<input type="checkbox"/> YK CSR					
Cooling Media	/					<input type="checkbox"/> PAH	<input type="checkbox"/> TEH	<input type="checkbox"/> F2 - F4	<input type="checkbox"/> CCME					
YES	NO	Cooler ID	4,4,5			<input type="checkbox"/> EPH	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Drinking Water				
Seal Present	/	2	4,4,5			<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> BC Water Quality				
Seal Intact	/	Temp	3	4	1	<input type="checkbox"/> Total Metals	<input type="checkbox"/> Chloride	<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfate	<input type="checkbox"/> Other				
Cooling Media	/					<input type="checkbox"/> TSS	<input type="checkbox"/> TDS	<input type="checkbox"/> BOD	<input type="checkbox"/> COO					
YES	NO	Cooler ID	3			<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia					
Seal Present	/	Temp	4	3	3	<input type="checkbox"/> Nitrate								
Seal Intact	/													
Cooling Media	/													
Sample Identification						Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix:	Special Instructions					
1	<i>BH21-03 SA03</i>		<i>2021/11/26</i>	<i>11:35</i>	<i>Soil</i>	<i>5</i>	<input type="checkbox"/> BTEX / VPH	<input type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> HOLD - DO NOT ANALYZE				
2	<i>SA04</i>			<i>11:40</i>			<input type="checkbox"/> BTEX F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> LEPH / HEPH / PAR					
3	<i>SA05</i>			<i>11:45</i>			<input type="checkbox"/> PAH	<input type="checkbox"/> TEH	<input type="checkbox"/> F2 - F4					
4	<i>SA06</i>			<i>11:50</i>			<input type="checkbox"/> EPH	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?					
5	<i>SA07</i>			<i>11:55</i>			<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Preserved?					
6	<i>SA08</i>			<i>12:00</i>			<input type="checkbox"/> Total Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Field Preserved?					
7	<i>DWP21-03</i>			<i>13:05</i>			<input type="checkbox"/> Chloride	<input type="checkbox"/> Fluoride	<input type="checkbox"/> Sulfate					
8	<i>DWP21-04</i>			<i>14:50</i>			<input type="checkbox"/> TSS	<input type="checkbox"/> TDS	<input type="checkbox"/> BOD	<input type="checkbox"/> COO				
9	<i>MW21-04 SA01</i>			<i>12:15</i>			<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity					
10	<i>SA02</i>			<i>12:50</i>			<input type="checkbox"/> Nitrate	<input type="checkbox"/> Nitrite	<input type="checkbox"/> Ammonia					
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Relinquished by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)		Date (yyyy/mm/dd):	Time (hh:mm):							
<i>Stewart M Bride</i>		<i>2021/11/26</i>	<i>10:15</i>	<i>J. M. WATKINS</i>		<i>2021/11/29</i>	<i>10:35</i>							

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### CHAIN OF CUSTODY RECORD

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Page

Invoice Information			Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required																																																																													
Company: <i>Stantec</i>	Contact Name: <i>Matt Redmond</i>	Address: <i>500-4515 Central Blvd Burnaby BC</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <i>123315738</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	<input type="checkbox"/> Rush TAT (Surcharge will be applied)																																																																												
Phone/Fax: <i>604-430-3014</i>	Email: <i>matt.remond@stantec.com</i>	Copies: <i>stewart.mcbride@stantec.com</i>	Phone/Fax: _____	Email: _____	Copies: _____	Site Location: _____	Site #: _____	Sampled By: <i>Stewart McBride</i>	<input type="checkbox"/> Same Day	<input type="checkbox"/> 2 Days																																																																												
									<input type="checkbox"/> 1 Day	<input type="checkbox"/> 3-4 Days																																																																												
									Date Required: _____	Rush Confirmation #: _____																																																																												
Laboratory Use Only									Regulatory Criteria																																																																													
<table border="1"> <tr> <td>YES</td> <td>NO</td> <td>Cooler ID</td> <td>1</td> </tr> <tr> <td>Seal Present</td> <td>/</td> <td>Temp</td> <td>4 4 3</td> </tr> <tr> <td>Seal Intact</td> <td>/</td> <td></td> <td></td> </tr> <tr> <td>Cooling Media</td> <td>/</td> <td></td> <td></td> </tr> </table> <table border="1"> <tr> <td>YES</td> <td>NO</td> <td>Cooler ID</td> <td>2</td> </tr> <tr> <td>Seal Present</td> <td>/</td> <td>Temp</td> <td>3 4 1</td> </tr> <tr> <td>Seal Intact</td> <td>/</td> <td></td> <td></td> </tr> <tr> <td>Cooling Media</td> <td>/</td> <td></td> <td></td> </tr> </table> <table border="1"> <tr> <td>YES</td> <td>NO</td> <td>Cooler ID</td> <td>3</td> </tr> <tr> <td>Seal Present</td> <td>/</td> <td>Temp</td> <td>4 3 3</td> </tr> <tr> <td>Seal Intact</td> <td>/</td> <td></td> <td></td> </tr> <tr> <td>Cooling Media</td> <td>/</td> <td></td> <td></td> </tr> </table>			YES	NO	Cooler ID	1	Seal Present	/	Temp	4 4 3	Seal Intact	/			Cooling Media	/			YES	NO	Cooler ID	2	Seal Present	/	Temp	3 4 1	Seal Intact	/			Cooling Media	/			YES	NO	Cooler ID	3	Seal Present	/	Temp	4 3 3	Seal Intact	/			Cooling Media	/			<table border="1"> <tr> <td colspan="3">Depot Reception</td> </tr> <tr> <td><input type="checkbox"/> 8TEOS / VPH</td> <td><input type="checkbox"/> 1VOC / DTEOS / VPH</td> <td><input type="checkbox"/> MTBE</td> </tr> <tr> <td><input type="checkbox"/> BTX/F1</td> <td><input type="checkbox"/> VOC / BTEX / F1</td> <td><input type="checkbox"/> PAH</td> </tr> <tr> <td><input type="checkbox"/> EPH</td> <td><input type="checkbox"/> LEPAH / HEPH / PAH</td> <td><input type="checkbox"/> F2 - F4</td> </tr> <tr> <td><input type="checkbox"/> Dissolved Metals</td> <td><input type="checkbox"/> TEH</td> <td><input type="checkbox"/> Filtered?</td> </tr> <tr> <td><input type="checkbox"/> Dissolved Mercury</td> <td><input type="checkbox"/> Preserved?</td> <td><input type="checkbox"/> Preserved?</td> </tr> <tr> <td><input type="checkbox"/> Total Metals</td> <td><input type="checkbox"/> Field Preserved?</td> <td><input type="checkbox"/> Field Preserved?</td> </tr> <tr> <td><input type="checkbox"/> Total Mercury</td> <td><input type="checkbox"/> Chloride</td> <td><input type="checkbox"/> Sulfate</td> </tr> <tr> <td><input type="checkbox"/> TSS</td> <td><input type="checkbox"/> TDS</td> <td><input type="checkbox"/> COD</td> </tr> <tr> <td><input type="checkbox"/> pH</td> <td><input type="checkbox"/> Conductivity</td> <td><input type="checkbox"/> Alkalinity</td> </tr> <tr> <td><input type="checkbox"/> Nitrite</td> <td><input type="checkbox"/> Nitrate</td> <td><input type="checkbox"/> Ammonia</td> </tr> </table>			Depot Reception			<input type="checkbox"/> 8TEOS / VPH	<input type="checkbox"/> 1VOC / DTEOS / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> BTX/F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> PAH	<input type="checkbox"/> EPH	<input type="checkbox"/> LEPAH / HEPH / PAH	<input type="checkbox"/> F2 - F4	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> TEH	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Total Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Chloride	<input type="checkbox"/> Sulfate	<input type="checkbox"/> TSS	<input type="checkbox"/> TDS	<input type="checkbox"/> COD	<input type="checkbox"/> pH	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Nitrite	<input type="checkbox"/> Nitrate	<input type="checkbox"/> Ammonia
YES	NO	Cooler ID	1																																																																																			
Seal Present	/	Temp	4 4 3																																																																																			
Seal Intact	/																																																																																					
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<table border="1"> <tr> <td>Date Sampled (yyyy/mm/dd): <i>2021/11/26</i></td> <td>Time Sampled (hh:mm): <i>12:55</i></td> <td>Matrix: <i>Soil</i></td> <td># of Containers: <i>5</i></td> </tr> <tr> <td>1 <i>MW21-04 SA03</i></td> <td><i>13:00</i></td> <td></td> <td></td> </tr> <tr> <td>2 <i>SA04</i></td> <td><i>13:05</i></td> <td></td> <td></td> </tr> <tr> <td>3 <i>SA05</i></td> <td><i>13:10</i></td> <td></td> <td></td> </tr> <tr> <td>4 <i>SA06</i></td> <td><i>13:15</i></td> <td></td> <td></td> </tr> <tr> <td>5 <i>SA07</i></td> <td><i>13:20</i></td> <td></td> <td></td> </tr> <tr> <td>6 <i>SA08</i></td> <td><i>14:30</i></td> <td></td> <td></td> </tr> <tr> <td>7 <i>ZI-05 SA09</i></td> <td><i>14:35</i></td> <td></td> <td></td> </tr> <tr> <td>8 <i>SA102</i></td> <td><i>14:40</i></td> <td></td> <td></td> </tr> <tr> <td>9 <i>SA103</i></td> <td><i>14:45</i></td> <td></td> <td></td> </tr> <tr> <td>10 <i>SA104</i></td> <td></td> <td></td> <td></td> </tr> </table>									Date Sampled (yyyy/mm/dd): <i>2021/11/26</i>	Time Sampled (hh:mm): <i>12:55</i>	Matrix: <i>Soil</i>	# of Containers: <i>5</i>	1 <i>MW21-04 SA03</i>	<i>13:00</i>			2 <i>SA04</i>	<i>13:05</i>			3 <i>SA05</i>	<i>13:10</i>			4 <i>SA06</i>	<i>13:15</i>			5 <i>SA07</i>	<i>13:20</i>			6 <i>SA08</i>	<i>14:30</i>			7 <i>ZI-05 SA09</i>	<i>14:35</i>			8 <i>SA102</i>	<i>14:40</i>			9 <i>SA103</i>	<i>14:45</i>			10 <i>SA104</i>				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 acknowledgement and acceptance of our terms and conditions.																																	
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 Victoria: 851 Viewfield Road, Unit 1, Victoria, BC V9A 4V2 Toll Free (833) 282-5227  
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### CHAIN OF CUSTODY RECORD

G 160376  
 Page 5 of 6

Invoice Information			Report Information (If differs from invoice)			Project Information			Turnaround Time (TAT) Required							
Company: <i>Stantec</i>	Contact Name: <i>Matt Redmond</i>	Address: <i>500-4515 Central Blvd Burnaby</i>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFER: _____	Project #: <i>123315738</i>	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses)	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS						
Phone/Fax: <i>604-436-3014</i>	Email: <i>matt.redmond@stantec.com</i>	Copies: <i>stewart.mbride@bvlabs.com</i>	PC: _____	Phone/Fax: _____	Email: _____	Site Location: _____	Site #: _____	Sampled By: <i>Stewart McBride</i>	<input type="checkbox"/> Same Day <input type="checkbox"/> 2 Days	Rush TAT (Surcharge will be applied)						
Seal Present: <input checked="" type="checkbox"/>	Seal Intact: <input checked="" type="checkbox"/>	Cooling Media: <input checked="" type="checkbox"/>	Temp: <i>4 4 3</i>	Seal Present: <input checked="" type="checkbox"/>	Seal Intact: <input checked="" type="checkbox"/>	Cooling Media: <input checked="" type="checkbox"/>	Temp: <i>3 4 1</i>	Seal Present: <input checked="" type="checkbox"/>	Seal Intact: <input checked="" type="checkbox"/>	Cooling Media: <input checked="" type="checkbox"/>	Temp: <i>4 3 3</i>	Date Required: _____	<input type="checkbox"/> 1 Day <input type="checkbox"/> 3-4 Days			
Laboratory Use Only						Analysis Requested						Regulatory Criteria				
YES	NO	Caster ID	Depot Reception			# of Containers										
Seal Present	<input checked="" type="checkbox"/>	1	4,4,3			5	<input type="checkbox"/> BTEX / VPH	<input type="checkbox"/> VOC / BTEX / VPH	<input type="checkbox"/> MTBE	<input type="checkbox"/> PAH	<input type="checkbox"/> BTEX F1	<input type="checkbox"/> VOC / BTEX / F1	<input type="checkbox"/> F2 / F4	<input type="checkbox"/> Preserved?	<input type="checkbox"/> Preserved?	<input type="checkbox"/> BC CSR
Seal Intact	<input checked="" type="checkbox"/>	2	4,4,5				<input type="checkbox"/> EPH	<input type="checkbox"/> TEH	<input type="checkbox"/> LEPH / HEPH / PAH	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Sulphate	<input type="checkbox"/> COD	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Other
Cooling Media	<input checked="" type="checkbox"/>	3					<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Chloride	<input type="checkbox"/> TDS	<input type="checkbox"/> BOD	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Nitrate	
Seal Present	<input checked="" type="checkbox"/>	4					<input type="checkbox"/> Total Mercury	<input type="checkbox"/> Fluoride	<input type="checkbox"/> pH	<input type="checkbox"/> TSS	<input type="checkbox"/> Nitrite					
Seal Intact	<input checked="" type="checkbox"/>	5					<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Sulphite	<input type="checkbox"/> TOC	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia	<input type="checkbox"/> Nitrate		
Cooling Media	<input checked="" type="checkbox"/>	6					<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Chloride	<input type="checkbox"/> TDS	<input type="checkbox"/> BOD	<input type="checkbox"/> Ammonia				
Seal Present	<input checked="" type="checkbox"/>	7					<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> Field Preserved?	<input type="checkbox"/> Fluoride	<input type="checkbox"/> TOC	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia			
Seal Intact	<input checked="" type="checkbox"/>	8					<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> TDS	<input type="checkbox"/> BOD	<input type="checkbox"/> Ammonia				
Cooling Media	<input checked="" type="checkbox"/>	9					<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> TOC	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia			
Seal Present	<input checked="" type="checkbox"/>	10					<input type="checkbox"/> Dissolved Mercury	<input type="checkbox"/> Filtered?	<input type="checkbox"/> Dissolved Metals	<input type="checkbox"/> TOC	<input type="checkbox"/> Conductivity	<input type="checkbox"/> Alkalinity	<input type="checkbox"/> Ammonia			
Sample Identification						Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix							Special Instructions	
1	<i>BH 24-05 SA05</i>	<i>2021/11/26</i>	<i>14:50</i>	<i>8011</i>	<i>5</i>									<input checked="" type="checkbox"/> HOLD - DO NOT ANALYZE		
2	<i>SA05</i>		<i>14:55</i>													
3	<i>SA07</i>		<i>15:00</i>													
4	<i>SA08</i>		<i>15:05</i>													
5	<i>MUR1-06 SA01</i>		<i>15:35</i>													
6	<i>SA02</i>		<i>15:40</i>													
7	<i>SA03</i>		<i>15:45</i>													
8	<i>SA04</i>		<i>15:50</i>													
9	<i>SA05</i>		<i>15:55</i>													
10	<i>SA06</i>		<i>16:00</i>													
By signing or otherwise agreeing 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 acknowledgement and acceptance of:																
Relinquished by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):											
<i>Stewart McBride</i>	<i>2021/11/26</i>	<i>10:15</i>	<i>J. WATSON</i>	<i>2021/11/29</i>	<i>10:35</i>											



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### CHAIN OF CUSTODY RECORD

G 160380  
 Page 6 of 6

Invoice Information				Report Information (if differs from invoice)			Project Information			Turnaround Time (TAT) Required																																																																							
Company: <u>Stantec</u>	Contact Name: <u>Matt Redmond</u>	Address: <u>4515 Central Blvd</u> <u>Burnaby</u>	Phone/Fax: <u>604-430-3014</u>	Company: _____	Contact Name: _____	Address: _____	Quotation: _____	P.O. #/AFE#: _____	Project #: <u>123215738</u>	Site Location: _____	Site #: _____	<input checked="" type="checkbox"/> 5 - 7 Days Regular (Most analyses) <b>PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS</b>																																																																					
Email: <u>matthew.redmond@stantec.com</u>	Copies: <u>stewart.mbr@bvlabs.com</u>	PC: _____	Phone/Fax: _____	Email: _____	Copies: _____	PC: _____	Sampled By: <u>Stewart McBride</u>	Rush Confirmation #: _____	Rush TAT (Surcharge will be applied)																																																																								
Laboratory Use Only				Analysis Requested						Regulatory Criteria																																																																							
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YES	NO	Cooler ID 1																																																																															
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Cooling Media	/																																																																																
Sample Identification				Date Sampled (yyyy/mm/dd)	Time Sampled (hh:mm)	Matrix	# of Containers	Special Instructions																																																																									
1	<u>11/21/06 SA07</u>	<u>2021/11/26 16:10</u>	<u>SA07</u>	<u>5</u>				<input checked="" type="checkbox"/> HOLD - DO NOT ANALYZE <input checked="" type="checkbox"/>																																																																									
2	<u>11/21/06 SA08</u>	<u>16:15</u>	<u>SA08</u>	<u>6</u>																																																																													
3	<u>11/21/06 SA05</u>	<u>15:35</u>	<u>SA05</u>	<u>6</u>																																																																													
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Released by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):	Received by: (Signature/ Print)	Date (yyyy/mm/dd):	Time (hh:mm):
<u>Stewart McBride</u>	<u>2021/11/29</u>	<u>10:15</u>	<u>J.WATSON moy</u>	<u>2021/11/29</u>	<u>10:35</u>

COC-1020

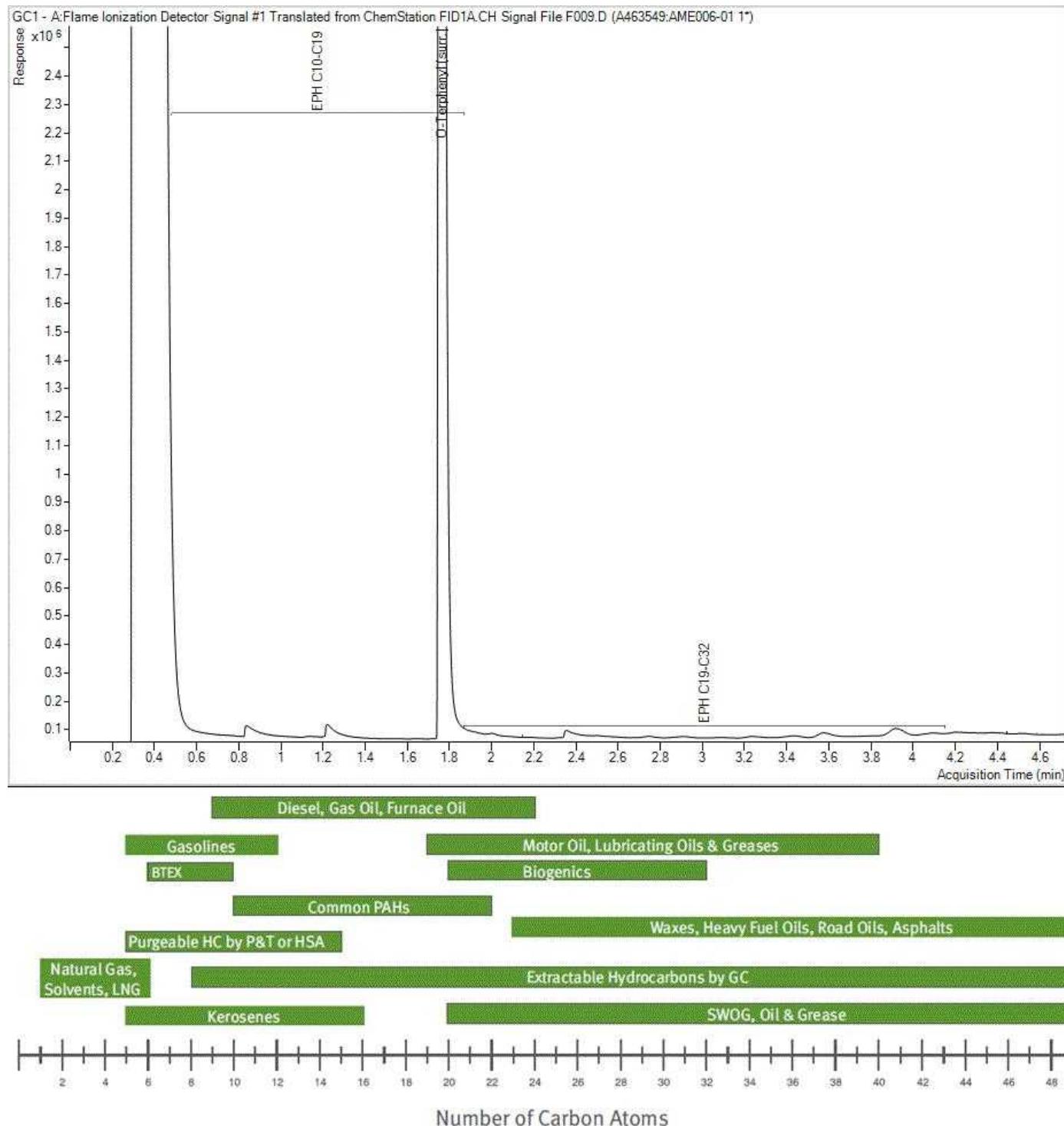
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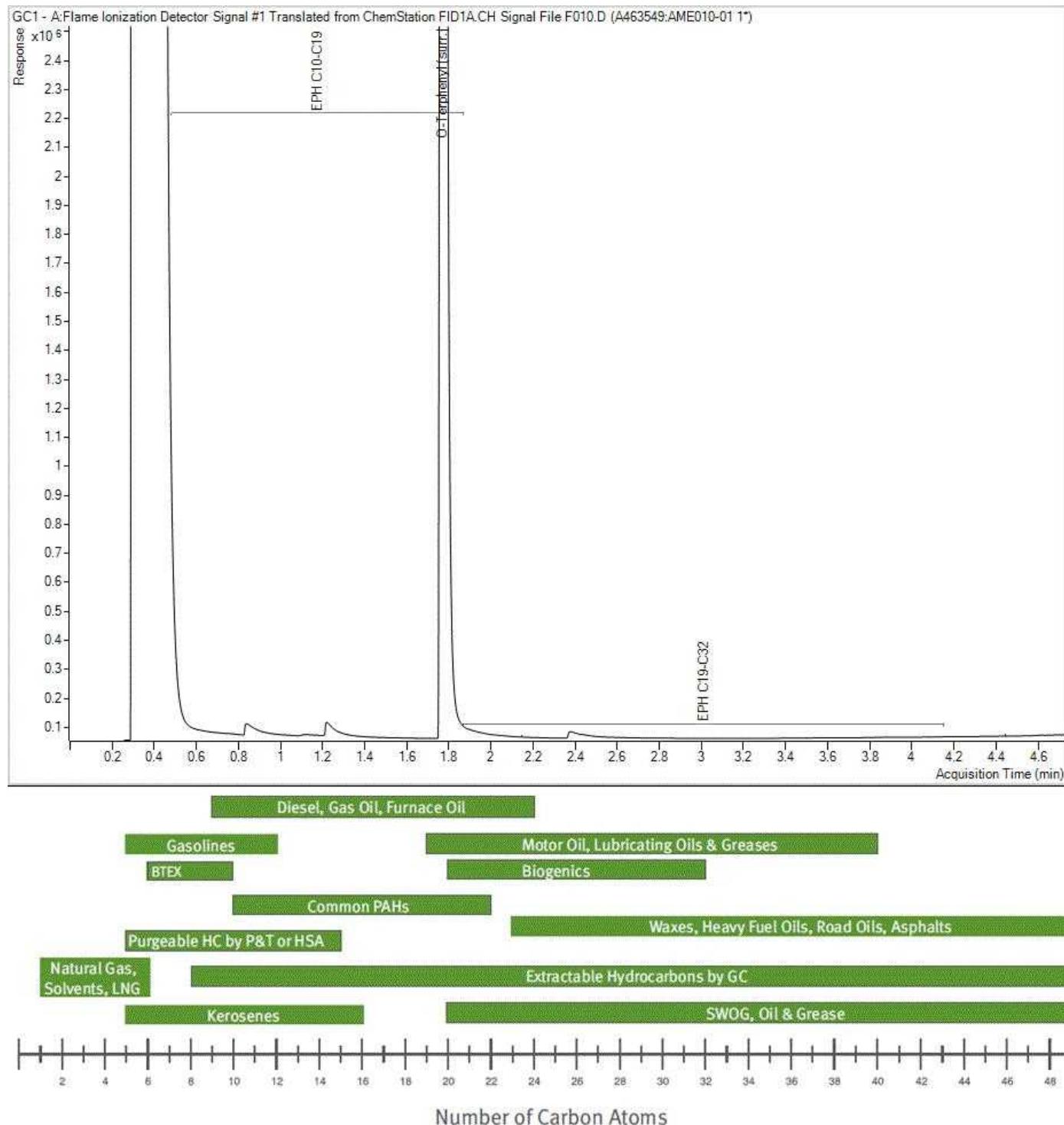
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EPH in Soil by GC/FID Chromatogram



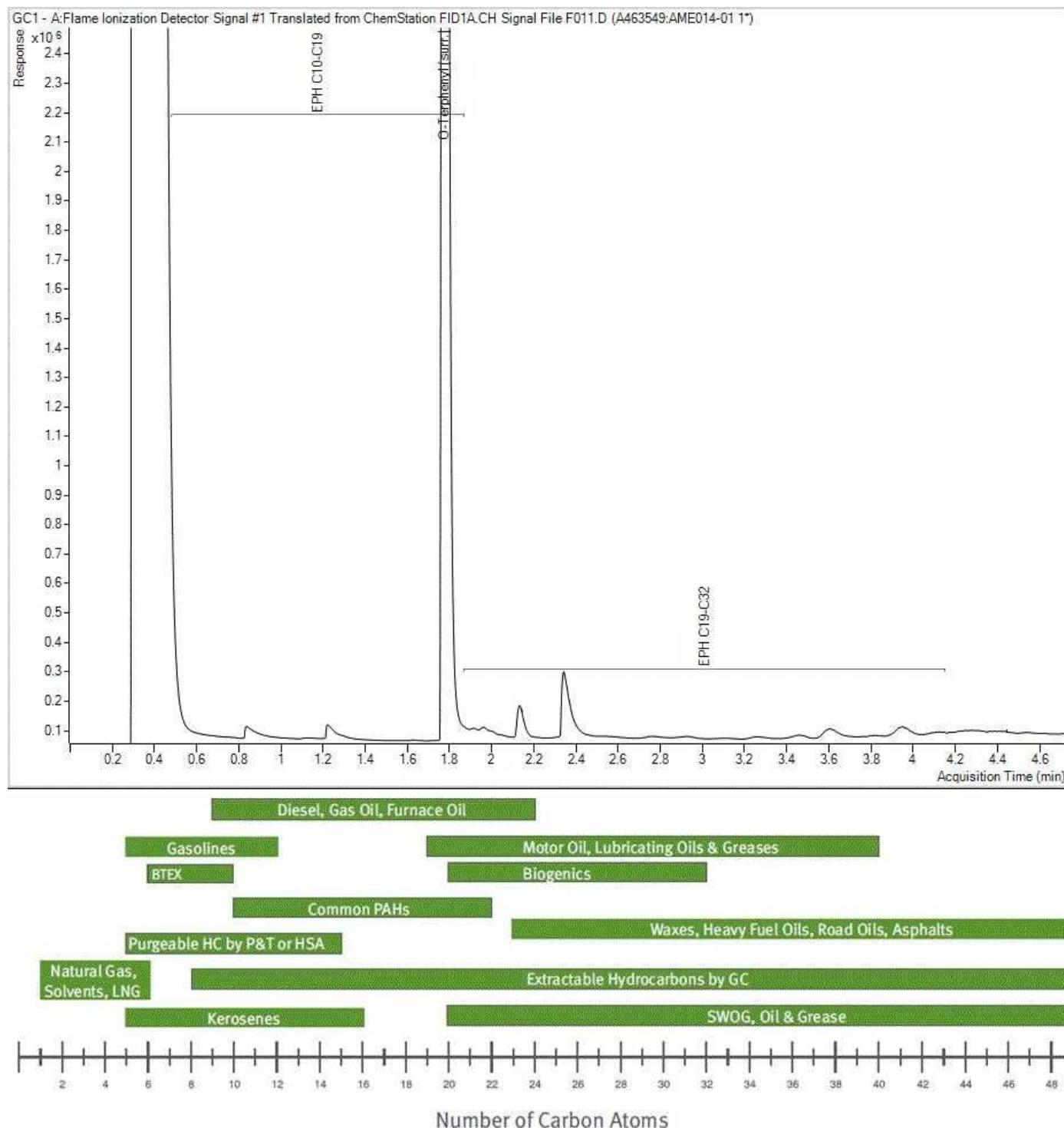
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

EPH in Soil by GC/FID Chromatogram



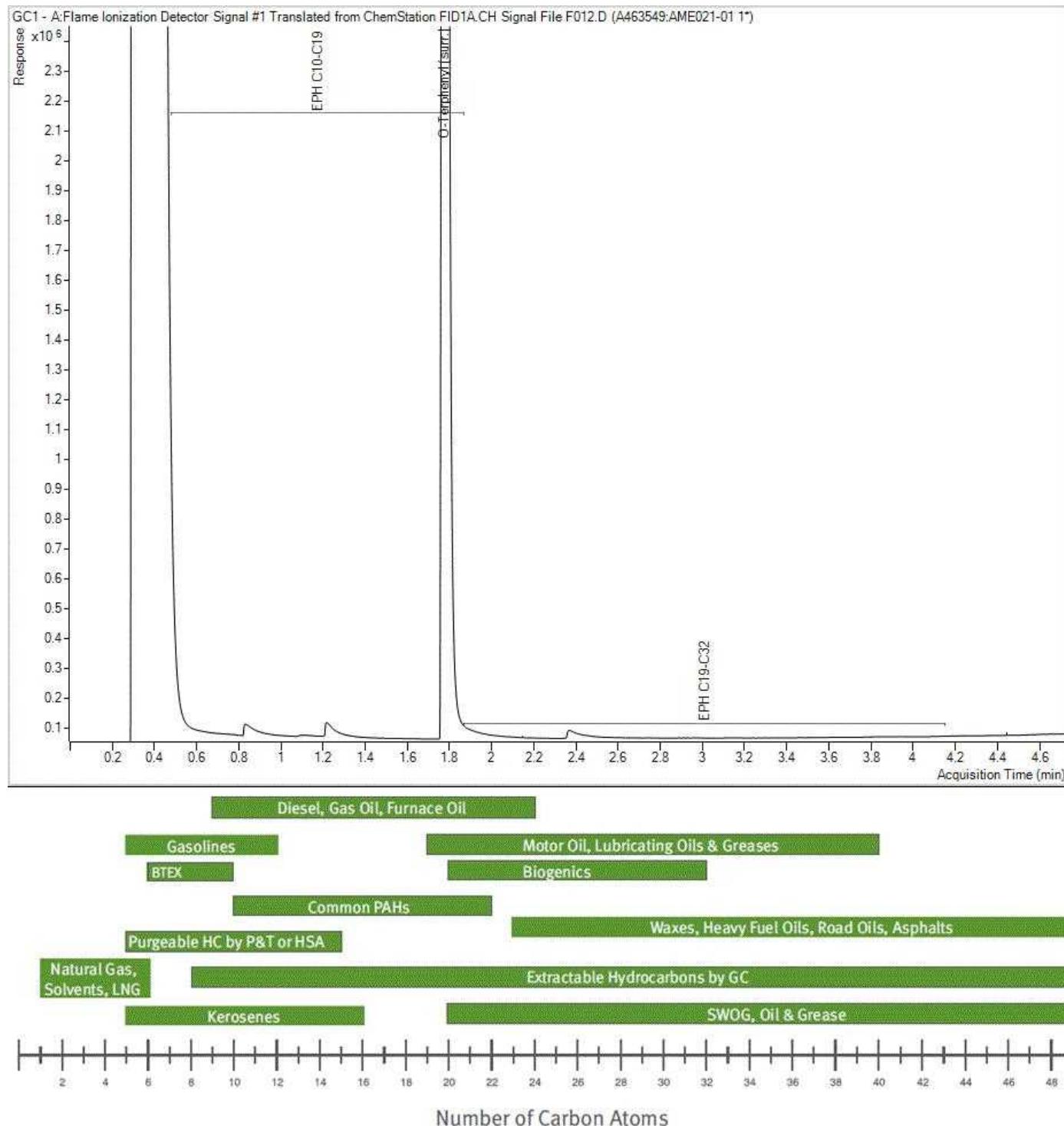
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EPH in Soil by GC/FID Chromatogram



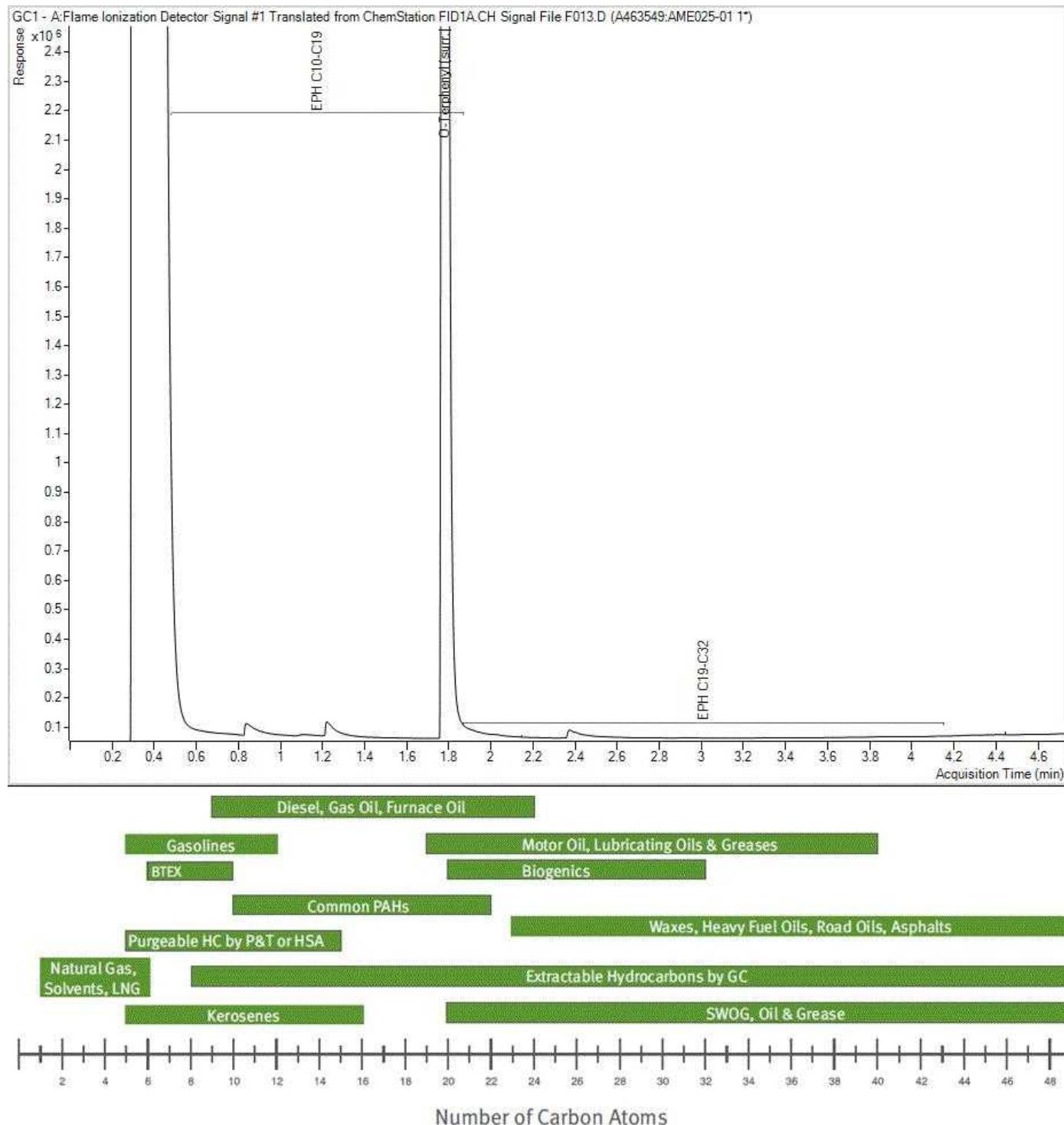
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EPH in Soil by GC/FID Chromatogram



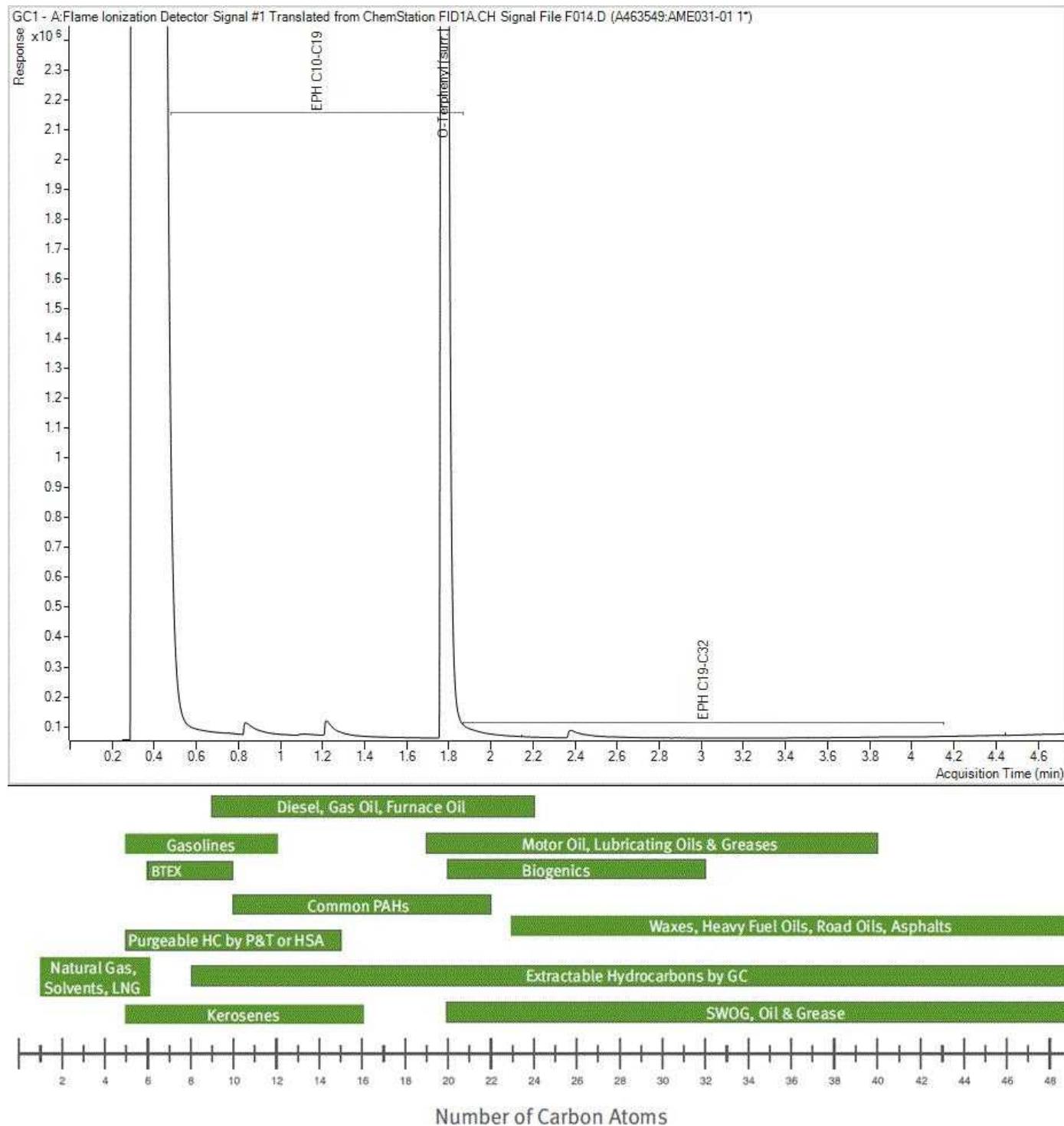
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EPH in Soil by GC/FID Chromatogram



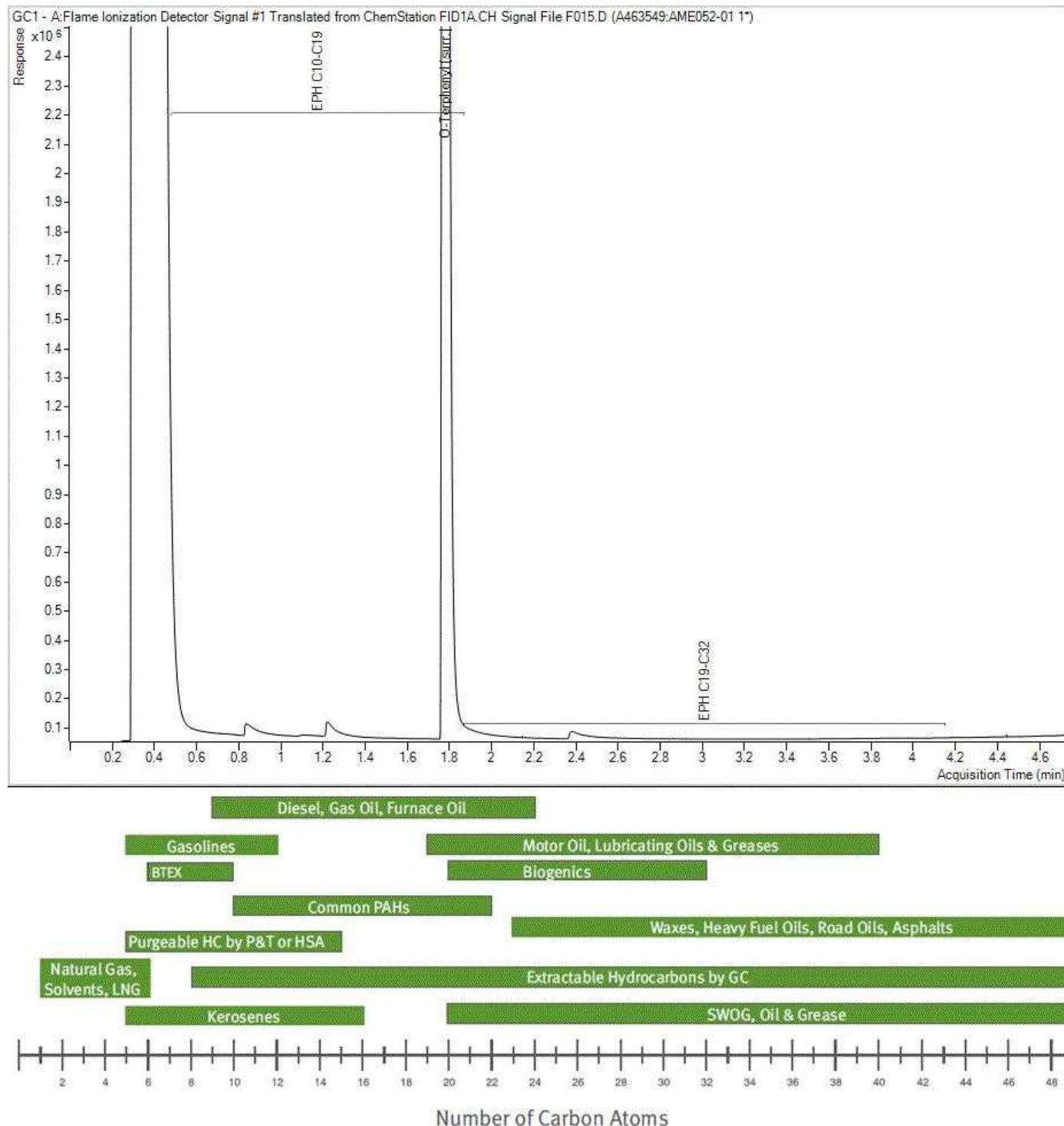
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EPH in Soil by GC/FID Chromatogram



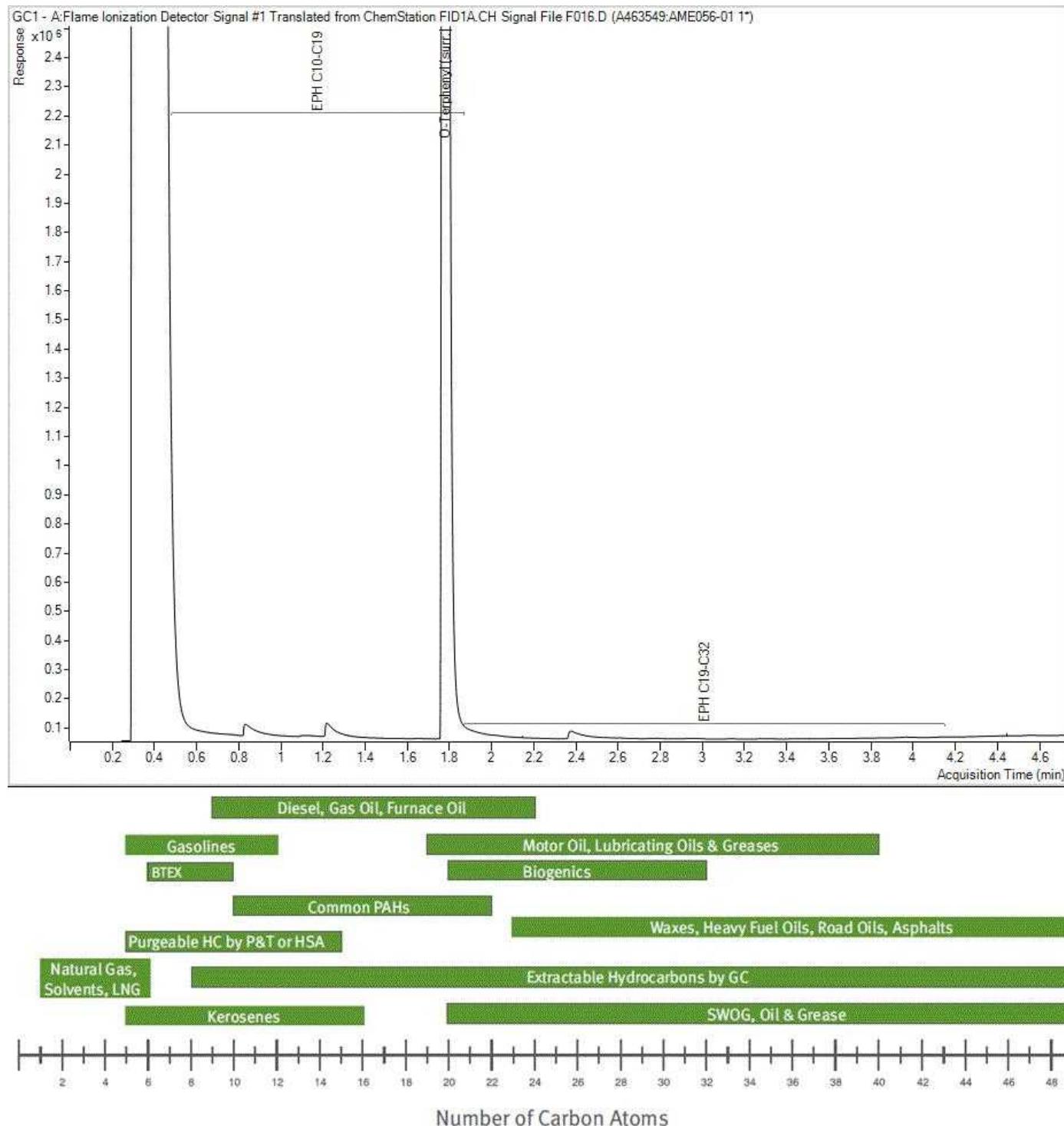
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EPH in Soil by GC/FID Chromatogram



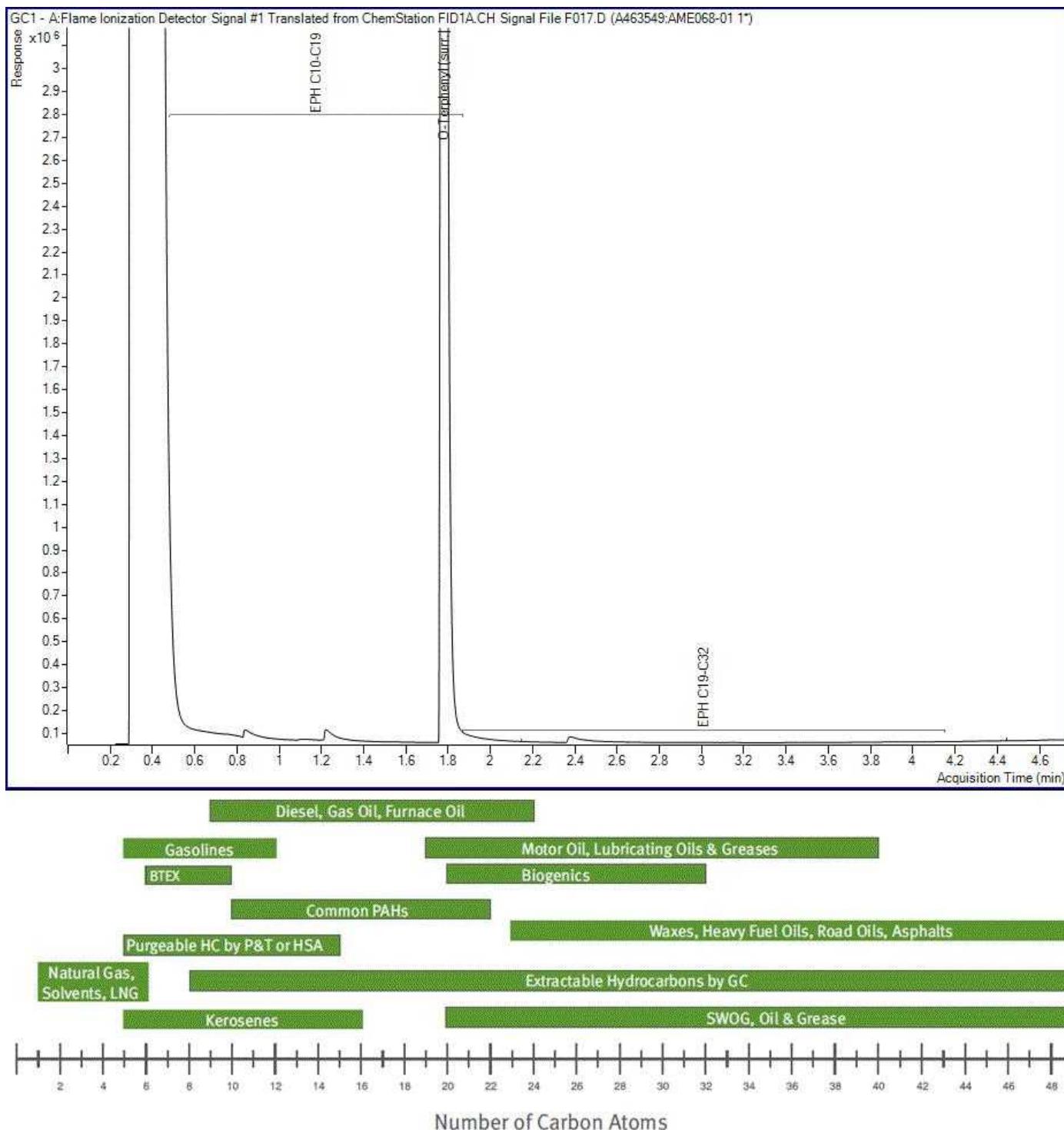
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EPH in Soil by GC/FID Chromatogram



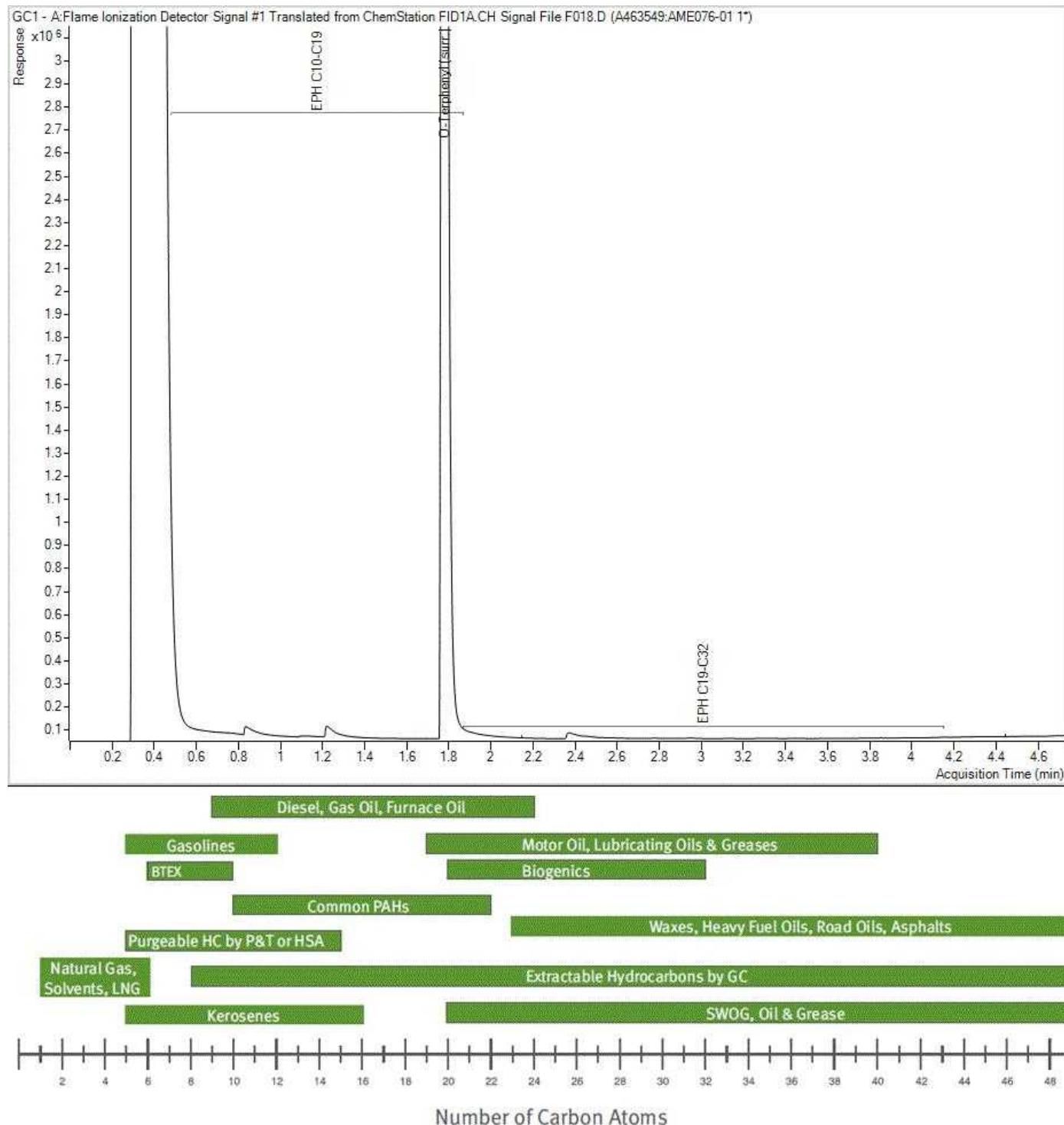
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EPH in Soil by GC/FID Chromatogram



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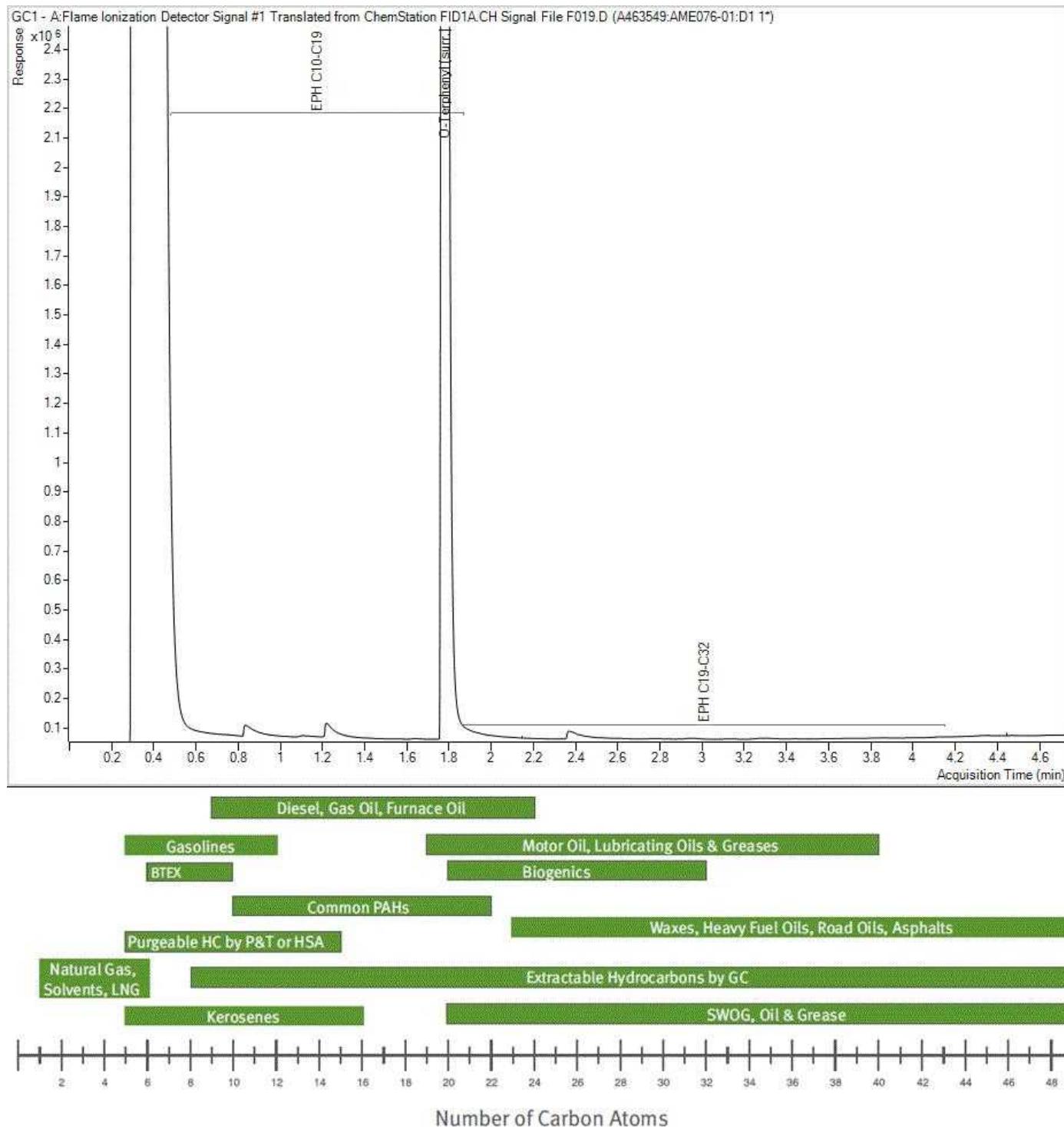


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Bureau Veritas Job #: C195368  
Report Date: 2022/01/12  
Bureau Veritas Sample: AME076 Lab-  
Dup

STANTEC CONSULTING LTD  
Client Project #: 123315738  
Client ID: MW21-06 SA05

### EPH in Soil by GC/FID Chromatogram



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