PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

958-960 EAST AVENUE, MISSISSAUGA, ONTARIO

REGION OF PEEL

VERSION 2

PROJECT NO.: 181-11306-00
DATE: DECEMBER 2018

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December 20, 2018

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Subject: Phase Two Environmental Site Assessment
958-960 East Avenue, Mississauga, Ontario
Project No.: 181-11306-00

WSP is pleased to present our Phase Two Environmental Site Assessment report for the above-noted property. This Phase Two Environmental Site Assessment was completed in accordance with Ontario Regulation 153/04, as amended. As such, this report may be used to support a Record of Site Condition application for the property. The report describes the interpreted environmental conditions at the property and provides conclusions for your consideration.

We trust that this information is sufficient for your current needs. If you have any questions or require further information, please contact us.

Yours truly,

Michael Wilson, C.E.T.
Project Manager

WSP ref.: 181-11306-00

SIGNATURES

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ACRONYMS AND ABBREVIATIONS

µm	micrometre(s)
APEC	area(s) of potential environmental concern as defined in O.Reg. 153/04, "the area on, in or under a phase one property where one or more contaminants are potentially present, as determined through the phase one environmental site assessment, including through (a) identification of past or present uses on, in or under the phase one property, and (b) identification of potentially contaminating activity"
As	arsenic
B-HWS	boron (hot water soluble)
BTEX	benzene, toluene, ethylbenzene, and xylenes
CALA	Canadian Association for Laboratory Accreditation
Cl-	chlorine
CN-	cyanide
Cr (VI)	hexavalent chromium
CSM	conceptual site model
DNAPL	dense non-aqueous phase liquid(s)
EC	electrical conductivity
ESA	environmental site assessment
ha	hectare(s)
Hg	mercury
ICC	Industrial/Commercial/Community
km	kilometre(s)
L	litre(s)
LNAPL	light non-aqueous phase liquid(s)
m	metre(s)
masl	metres above sea level
mbgs	metres below ground surface
MDL	method detection limit
MNRF	Ministry of Natural Resources and Forestry
MECP	Ministry of the Environment, Conservation and Parks
N/S	Not Specified
Na	sodium
O.Reg. 153/04	Ontario Regulation 153/04, as amended
O.Reg. 347	Ontario Regulation 347, as amended

O.Reg. 903	Ontario Regulation 903, as amended
ORPs	other regulated parameters
PAH	polycyclic aromatic hydrocarbon
PCA	potentially contaminating activity as defined in O.Reg. 153/04, "a use or activity set out in Column A of Table 2 of Schedule D that is occurring or has occurred in a Phase One study area"
PCB	polychlorinated biphenyls
PCOC	potential contaminant(s) of concern
PHC	petroleum hydrocarbon
PID	photoionization detector
PIN	property identification number
ppm	parts per million
QA	quality assurance
QC	quality control
QPESA	Qualified Person for ESAs according to MECP O.Reg. 153/04
RA	Risk Assessment
RDL	reporting detection limit
RPI	Residential/Parkland/Institution
RPIICC	Residential/Parkland/Institution/Industrial/Commercial/Community
RSC	Record of Site Condition
SAP	Sampling and Analysis Plan
SAR	sodium adsorption ratio
Sb	antimony
Se	selenium
SOP	standard operating procedure(s)
SCS	Site Condition Standard
THM	trihalomethane
TOV	total organic vapours
UST	underground storage tank
VOC	volatile organic compound

1 EXECUTIVE SUMMARY

WSP Canada Inc. was retained by The Region of Peel to conduct a Phase Two Environmental Site Assessment (ESA) at 958-960 East Avenue in Mississauga, Ontario (hereafter referred to as the "Phase Two Property" or "Site"). It is our understanding that this Phase Two ESA was undertaken to assess the soil and groundwater conditions prior to a residential redevelopment, and that a Record of Site Condition (RSC) for the Phase Two Property will be required.

The Site is located on the southwest corner of Lakeshore Road East and East Avenue in a mixed industrial, commercial, community, parkland, and residential area in the City of Mississauga, Ontario. The location of the Site is provided on Figure 1. The Phase One Property is currently utilized for residential purposes, with a total area of 0.7601 ha (1.9 acres).

Based on the Phase One ESA completed by WSP in October 2018, the Phase Two Property is considered to have areas of potential environmental concern (APEC) due to the following potentially contaminating activities (PCAs):

Table 1.1 PCA Summary

PCAs	DESCRIPTION
PCA No. 8 Chemical Manufacturing, Processing and Bulk Storage	**Phase One Study Area** – Based on a review of the city directories, Abbie-Innes Manufacturing Ltd. Sanitary Chemical, was historically located at 795 1st Street, approximately 105 m north of the Phase One Property. **(APEC 6)** A review of the city directories HB Fuller-Monercher Inc. and Fuller B Canada Inc., industrial adhesives, coating, and sealant operations, historically operated at 880 Rangeview Road, approximately 250 m south of the Site. Based on the location relative to inferred groundwater flow direction, and distance of the PCAs from the Site, these operations were not considered to be contributing to an APEC on-site.
PCA No. 10 Commercial Autobody Shops	**Phase One Study Area** – Based on a review of the city directories and current activities noted during the site reconnaissance, Speedy Glass and Wheels & Tires Ltd. operated at 811 Lakeshore Road East, and Ultimocar and E-Zee Wheels Auto Sales operated at 825 Lakeshore Road east, both approximately 10 m north of the Site. **(APEC 6)**
PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	**Phase One Study Area** – Based on a previous investigation of a neighbouring property, a historic UST was previously located at 930 East Avenue, south adjacent to the Phase One Property, prior to its removal in 2014. **(APEC 5)**
PCA No. 30 Importation of Fill Material of Unknow Quality	**Phase One Property** – Uneven grading was noted throughout the Phase One Property during the site reconnaissance, it is assumed that fill material was imported on to the Site. **(APEC 2)**
PCA No. 37 Operation of Dry Cleaning Equipment (where chemicals are used)	**Phase One Study Area** – Based on a review of the city directories, Superior Cleaners historically operated at 791 Lakeshore Road East, approximately 10 m north of the Phase One Property. **(APEC 6)**
PCA No. 54 Textile Manufacturing and Processing	**Phase One Study Area** – Based on a review of the city directories, Duralite Furniture Manufacturing historically operated at 795 1st Street, approximately 105 m north of the Phase One Property. **(APEC 6)**

PCAs	DESCRIPTION
PCA No. 55 Transformer Manufacturing, Processing and Use	**Phase One Property** – A transformer was noted in the middle of the Phase One Property during the site reconnaissance. **(APEC 3)**
PCA No. 58 Waste Disposal and Waste Treatment, including thermal treatment, landfilling and transfer of conditioners	**Phase One Study Area** – One (1) property within the Phase One Study Areas was the location of a former landfilling operation and eight (8) properties within the Phase One Study Area were registered in the O.Reg. 347 database for the generation, use and/or storage of various wastes, including 930 East Avenue, located south adjacent to the Phase One Property, was registered for the generation, use, and/or storage of inorganic chemical waste, aliphatic solvents and residues, petroleum distillates, waste oils/sludges, and organic chemical waste. **(APEC 4)**
PCA No. N/S A Application of De-icing Compounds	**Phase One Property** – Vehicle parking lots were noted on the Phase One Property during the site reconnaissance and it is assumed that it has been subject to de-icing compounds. **(APEC 1)**

From November 1 to 8, 2018 eight (8) boreholes (BH18-1 to BH18-8) were advanced on the Site using a track-mounted Mobile B-45 HD drill rig. Five (5) boreholes were converted to monitoring wells (BH18-1, BH18-2, BH18-4, BH18-5 and BH18-7) and two (2) located consisted of shallow and deep nested wells (BH18-1 S/D and BH18-2 S/D). The borehole locations were selected based on the findings of the Phase One ESA (WSP, 2018). Soil and groundwater samples were submitted for analysis of potential contaminants of concern (PCOCs) including: metals and ORPs, PHCs, VOCs, PAHs and PCBs.

- Fill material was identified in all boreholes at depth ranging from approximately 0.9 to 2.1 mbgs. The fill material consisted of silty clay with trace sand and gravel and contained shale fragments, wood fragments and rootlets. Beneath the fill material, native deposits of silty clay till were encountered to depths ranging from 3.0 to 3.7 mbgs. Silty clay till/shale complex was encountered below the silty clay till unit which was encountered above the shale bedrock at depths ranging from 3.8 to 6.5 mbgs. Rock coring was completed in three (3) boreholes (BH18-1D, BH18-2D and BH18-3).
- The depth to groundwater was recorded in the overburden monitoring wells (BH18-1S, BH18-2S, BH18-4, BH18-5 and BH18-7) installed during the current investigation. The groundwater levels were found to range between 1.9 and 3.2 mbgs and the groundwater elevations ranged between 78.0 and 80.2 m masl. Based on the levels recorded, the groundwater flow direction appears to be southwesterly. However, subsurface utilities may be influencing the water levels, specifically for BH18-7. Groundwater flow direction can be influenced by seasonal fluctuation, utility services, and other subsurface features and can only be confirmed with long term monitoring.
- The soil and groundwater analytical results were compared to 2011 MECP Table 3 Full Depth Generic SCS in a Non-Potable Groundwater Condition for RPI Use.
- A total of thirty-six (36) soil samples, and four (4) QA/QC samples, were submitted to the laboratory and analysed for PCOCs including: metals and ORPs, PHCs, VOCs, PAHs and PCBs. The results of the analyses indicated the following exceedances of the MECP Table 3 RPI SCS.

Table 7.1 Summary of Exceedances in Soil

SAMPLE ID	DEPTH (MBGS)	PARAMETER	UNITS	TABLE 3 RPI SCS	ANALYTICAL RESULT
BH18-2 SS2	0.8-1.4	EC	mS/cm	0.7	**2.9**

		SAR	-	5	**24**
BH18-2 SS3	1.5-2.1	EC	mS/cm	0.7	**2.0**
BH18-2 SS4	2.3-2.9	EC	mS/cm	0.7	**1.8**

Notes:

Bold and Shaded: Concentration exceeds the MECP Table 3 RPI SCS

- In November and December 2018, groundwater samples were obtained from the five (5) overburden monitoring wells and submitted for analysis of metals and ORPs, PHCs, and VOCs. The groundwater analytical results indicated all samples met the MECP Table 3 SCS with the exception of elevated F2 concentrations at BH18-4, located on the south portion of the Site. As this concentration marginally exceeded the MECP Table 3 SCS, redevelopment and resampling was conducted and two (2) subsequent groundwater sampling events indicated the concentrations met the MECP Table 3 SCS for PHCs. As the two (2) most recent sampling events at BH18-4 met the MECP Table 3 SCS for PHCs, the original groundwater exceedance may be an anomaly and not representative of the actual groundwater conditions at this location.

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

- Soils impacted with elevated EC and/or SAR are present on the property at one (1) borehole location in the vicinity of the private parking lot and were found at depths ranging from 0.8-2.9 mbgs.
- All groundwater samples collected met the MECP Table 3 SCS for the parameters analyzed.
- As the property is proposed to be developed from residential to residential (no change in property use) a RSC may be required as part of site development by lower tier municipalities. Remediation of soil impacted with EC/SAR followed by confirmatory sampling would be required to support an RSC filing. Alternatively, if remediation is not considered feasible, a RA can be conducted instead of, or in conjunction with remediation.
- In the case of either remediation or RA, further assessment of the extent of impacts (particularly horizontal extent) will be required to further investigate the EC/SAR impacts. Remediation and collection of confirmatory soil samples can be conducted during construction and bulk excavation.
- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

2 INTRODUCTION

WSP was retained by The Region of Peel to conduct a Phase Two ESA of the property located at 958-960 East Avenue in Mississauga, Ontario. It is our understanding that this environmental assessment has been requested prior to residential redevelopment of the Site and that a RSC with the MECP may be required. The Phase Two ESA was conducted in compliance with O.Reg. 153/04 to support the proposed residential redevelopment of the Site.

2.1 SITE DESCRIPTION

The Site is located on the southwest corner of Lakeshore Road East and East Avenue in a mixed industrial, commercial, community, parkland, and residential area in the City of Mississauga, Ontario. The location of the Site is provided on Figure 1. The Phase One Property is currently utilized for residential purposes, with a total area of 0.7601 ha (1.9 acres).

The Phase Two Property is occupied with two (2) residential apartment buildings and a tenant parking lot located on the east portion of the property. The location of the residential structures on the Phase Two Property and the location of the Phase Two Property are depicted in Figure 1.

Property information for the Site is provided in the table below:

Table 2.1 Property Information

CRITERION	DESCRIPTION
Municipal Address	958-960 East Avenue, Mississauga, Ontario
Property Identification Numbers (PINs)	153485-0269 (LT)
Legal Description	Part of Lot 9 and 10, Concession 3, South of Dundas Street (Formerly Township of Toronto, County of Peel), City of Mississauga, Regional Municipality of Peel

A survey plan was not available for the Phase One Property. A site plan is attached in Appendix A.

2.2 PROPERTY OWNERSHIP

Property ownership information for the Site is provided in the table below:

Table 2.2 Property Ownership Information

CRITERION	DESCRIPTION
Current Site Owner	Peel Housing Corporation

Owner's Representative	Yuen Lee The Region of Peel 10 Peel Centre Drive, Suite B, Mississauga, Ontario L9T 4B8 Email: Yuen.lee@peelregion.ca

2.3 CURRENT AND PROPOSED FUTURE USES

The Phase Two Property is currently occupied with two (2) residential apartment buildings and a tenant parking lot located on the east portion of the property. It is our understanding that the site is proposed to be redeveloped with a 7 to 10 storey residential building structure with two (2) levels of underground parking and one (1) level of above ground parking.

2.4 APPLICABLE SITE CONDITION STANDARD

Analytical results were compared to the 2011 MECP Table 3 Full Depth Generic SCS in a Non-Potable Groundwater Condition for RPI property uses and medium to fine grained soils set out in the MECP publication *Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (April 15, 2011). This evaluation standard for the Phase Two Property was selected for comparison purposes based on the following:

- The City of Mississauga obtains its potable water from Lake Ontario, and does not rely on groundwater as a potable water source.
- The Phase Two Property is not considered an "environmentally sensitive" site, as defined by O.Reg. 153/04
- Residential land use is proposed for the Phase Two Property
- The Phase Two Property is not situated within 30-m of a water body
- The pH of the soil samples analysed during this investigation from the eight (8) boreholes ranged from 6.66 to 7.76, which falls within the acceptable range stated in O.Reg. 153/04
- Bedrock was not encountered within 2 m of the ground surface
- Grain size analysis indicated that over 2/3 of the Phase Two Property is considered medium to fine textured soil as defined in O.Reg. 153/04. The grain size results are presented in Appendix C.

3 BACKGROUND INFORMATION

3.1 PHYSICAL SETTING

A summary of the Site's physical setting, determined through the Phase One ESA is included in table below:

Table 3.1 Summary of Physical Setting

CRITERIA	DESCRIPTION
i. Water Bodies and Areas of Natural Significance	The Etobicoke Creek is located approximately 1.0 km to the east and Lake Ontario is located approximately 500 m south of the Phase One Property. No areas of natural significance were identified in the Phase One Study Area The ERIS ANSI Report did not identify the Phase One Property or any areas within the Phase One Study Area as a having Natural & Scientific Interest. The Natural Heritage Areas database lists areas of natural significance including provincial parks, conservation reserves, areas of natural and scientific interest, wetlands environmentally significant areas, habitats of a threatened or endangered species, and wilderness areas. A review of this database listed the following four (4) species as either endangered for threatened; — The Henslow's Sparrow (bird) has been listed as endangered by SARO and COSEWIC. The Henslow's Sparrow was last observed within 1 km of the Phase One Property in 1932. Given that the last sighting was in 1932, it is not anticipated that there are any Henslow's Sparrows utilizing the Site or nearby neighbouring properties as habitat. — The American Eel (fish) has been listed as endangered by SARO and COSEWIC. The American Eel is a fish species; therefore, it is found in waterbodies. As the nearest waterbody, Lake Ontario, is approximately 500 m south of the Phase One Property it is not anticipated that there are any American Eel's utilizing the Site or neighbouring properties as habitat. — The Barn Swallow (bird) has been listed as threatened by SARO and COSEWIC. According to the MNRF, the barn shallows are found in open structures almost exclusively their habitats are in barns, under bridges, and in culverts. Given that there are no open structures located on the Phase One Property or within the Phase One Study Area it is not anticipated that there are any Barn Swallow's habitats on the Site or the neighbouring properties. It not anticipated that these species would be found on the Site; however, if required, an environmental specialist could be retained to undertake a site-specific Ecological assessment. At this time further assessment is not warranted.
ii. Topography, Hydrology, Geology	The Phase One Property is relatively flat with an elevation of approximately 82 to 85 masl. The topography in the vicinity of the Phase One Property slopes to the south. Based on the local topography, the inferred shallow groundwater flow direction of the Phase One Study Area is to the southwest towards Lake Ontario and Cooksville Creek, which is located approximately 500 m south and 650 m southwest of the Site, respectively. The groundwater flow direction on the Phase One Property can only be confirmed through long-term groundwater monitoring. The Site is situated within a Bevelled till plain physiographic region. The surficial geology in the vicinity of the Site is described as "Coarse-textured glaciolacustrine

	deposits - sand, gravel, minor silt and clay foreshore and basinal deposits." The underlying bedrock within the area generally consists of shale, limestone, dolostone, and siltstone of the Georgian Bay Formation; Blue Mountain Formation; Billings Formation; Collingwood Member; Eastview Member. The bedrock in the vicinity of the Site is anticipated at depths of approximately 5 mbgs, based on the available MECP well records.

3.2 PAST ASSESSMENTS AND INVESTIGATIONS

A Phase One ESA was completed concurrently with this investigation and in referenced throughout this report. The Phase One CSM can be found in Section 4.3 below.

4 SCOPE OF INVESTIGATION

4.1 OVERVIEW OF SITE INVESTIGATION

The Phase Two ESA involved intrusive investigation in the areas determined in the Phase One ESA to be APECs. The Phase Two ESA was carried out according to O. Reg. 153/04. The Site investigation activities were limited to visible and accessible locations of the Site. Subsurface investigations, testing, sampling, and laboratory analyses were completed based on finding of Phase One ESA, accessibility to each APEC, and site observations.

The site investigation program included the following:

— Clearance of public and private underground utilities and services prior to commencement of intrusive investigation activities.

— Preparation of a Health and Safety Plan and safe execution of all proposed work.

— Advancement of eight (8) boreholes on the Phase Two Property, to depths ranging from approximately 4.6 to 12.3 mbgs using a track-mounted drill rig. The soil lithology from each borehole was logged in the field and samples were screened for TOV with a photoionization detector. The location of the boreholes was selected to investigate any APECs identified during the Phase One ESA.

— Based on field screening and visual/olfactory observations, worst-case/representative soil samples from the boreholes were submitted for laboratory testing of relevant PCOCs.

— Groundwater monitoring wells were installed within five (5) boreholes to assess groundwater quality at the Site and determine the direction of groundwater flow in the overburden. In addition, two (2) monitoring wells were installed in the bedrock for geotechnical and hydrogeological purposes.

— The groundwater levels in the wells were measured to determine the groundwater table elevation. The wells were surveyed to a geodetic benchmark to determine groundwater flow direction.

— The groundwater wells were purged to remove stagnant water and sampled for laboratory testing of relevant parameters of concern.

— Both soil and groundwater samples were submitted for chemical analysis by a CALA certified laboratory in accordance with the MECP standards and requirements of O.Reg. 153/04 under the Environmental Protection Act.

4.1.1 SAMPLING AND ANALYSIS PLAN

The SAP is provided in Appendix B. per O.Reg. 153/04 Schedule E. Condition 3(5), WSP developed the SOPs used in the field investigation.

Fieldwork for this Phase Two ESA was undertaken following the SOPs. Deviations from the SAP and SOPs, if any, are detailed in Section 4.4. The list of SOPs is presented in the table below.

Table 4.1 List of Standard Operating Procedures Used in Field Investigation

CATEGORY	SOP
i. Drilling	Auger/Boring Rigs

CATEGORY		SOP
		Rock coring Monitoring Well Hollow Stem Auger Advancement Soil Sample Material Descriptions
ii.	Soil Sampling	Continuous Sampling Field Soil Sampling for VOC and PHC Analysis
iii.	Soil Field Testing	Odour Identification Field Screening of Samples for Organic Vapours
iv.	Monitoring Well Construction	Monitoring Well Construction Monitoring Well Development
v.	Field Measurement of Water Quality Indicators	Temperature Measurement Conductivity Measurement pH Measurement Dissolved Oxygen Measurement
vi.	Groundwater Monitoring/Sampling	Water Level Monitoring Non-Aqueous Phase Liquid Level Monitoring Monitoring Well Purging Monitoring Well Sampling Volatile Organic Sampling
vii.	QA/QC Program	Quality Assurance Quality Control

4.2 MEDIA INVESTIGATION

A summary of the media investigated during the Phase Two ESA is provided in Table 2 and Table 3, attached.

4.3 PHASE ONE CONCEPTUAL SITE MODEL

A Phase One CSM was presented in the Phase One ESA report by WSP and is presented in this report as Figure 1. The Phase One CSM identified the PCAs and APECs for the Site, as described in Section 6.5.

4.4 DEVIATIONS FROM THE SAMPLING AND ANALYSIS PLAN

The Phase Two ESA was done in general accordance with the SAP.

4.5 IMPEDIMENTS

Two (2) sanitary force mains and two (2) watermains were located in the open area to the west of the residential buildings. The boreholes planed for this area, were moved further west to avoid this area. As the borehole placement still covered the respective APECs, the impediments did not limit WSP's ability to carry out this Phase Two ESA in accordance with O.Reg. 153/04.

5 INVESTIGATION METHOD

5.1 GENERAL

This section provides a brief description of all methods employed in undertaking this Phase Two ESA. Where the method differs from the associated standard operating procedure, a detailed description of the method used and a rationale for the change in method is provided in the appropriate subsection below.

5.2 DRILLING

WSP staff inspected the Site and identified the preferred borehole locations based on the APECs identified in the most recent Phase One ESA by WSP, as shown on Figure 2. The borehole locations are shown on the Borehole Location Plan in Figure 3. The location of underground services and utilities within the Site were cleared prior to the commencement of the drilling program. WSP arranged for the service locates to be completed through Ontario One Call and OnSite Locators. A summary of the drilling events is presented in the table below.

Table 5.1 Summary of Drilling

INFORMATION PARAMETER	DETAILS
Name of Drilling Contractor	Profile Drilling
Drilling Equipment Used	Mobile B-45 HD (Track)
Measures taken to minimize the potential for cross-contamination	A 50-mm stainless steel split spoon sampler was used to collect soil samples from the boreholes. The split spoon sampler was brushed clean of soil, washed in municipal water containing phosphate free detergent, rinsed in municipal water, and then rinsed with distilled water for each sampling interval in order to reduce the potential for cross contamination.
Frequency of sample collection	Every 0.6 m per 0.8 m for the first 3.1 m followed by 0.6 m per 1.5 m to the termination of the borehole.

From November 1 to 8, 2018 eight (8) boreholes (BH18-1 to BH18-8) were advanced on the Site using a track-mounted Mobile B-45 HD drill rig. Five (5) boreholes were converted to monitoring wells (BH18-1, BH18-2, BH18-4, BH18-5 and BH18-7) and two (2) located consisted of shallow and deep nested wells (BH18-1 S/D and BH18-2 S/D). The boreholes were advanced to a maximum depth of 12.3 mbgs. Soil samples were collected from the fill material and native clayey silt till using a 50-mm diameter, 0.61-m long stainless-steel split spoon sampler.

5.3 SOIL

5.3.1 SOIL SAMPLING

Disposable nitrile gloves were used during sample collection and changed between each sample to minimize the potential for cross-contamination. Soil samples were described in the field by WSP staff and observations were recorded in a dedicated field book. Soil samples were collected directly into laboratory-supplied 120-mL amber glass jars and 40-mL methanol-preserved vials and were stored at a temperature of less than 10°C. Samples selected for laboratory analysis were handled under standard chain of custody procedures until received at the laboratory. The soil samples selected for laboratory analysis were considered representative of worst-case conditions in the boreholes based on field screening results and visual and olfactory observations.

All soil samples were submitted to Maxxam Laboratories in Mississauga, Ontario. The soil samples submitted for chemical analysis are summarized in Table 2, appended.

5.3.2 FIELD SCREENING MEASUREMENTS

Soil samples collected from the boreholes were field screened for TOV using a MiniRae 3000 PID. In addition to visual and olfactory observations, the results of field screening were used to determine worst-case samples in order to select those to submit to the laboratory for analysis of volatile parameters. Additional samples may have been analysed for delineation purposes, if required. A summary of field screening measurements is provided in the table below.

Table 5.2 Summary of Field Screening Information

CRITERIA		DESCRIPTION
i.	Make and Model of Field Screening Instrument	MiniRae 3000 PID, Serial Number 592-911305
ii.	Chemicals that Field Screening Instrument Detects and Respective Detection Limits	VOCs with dynamic range of 0.1 parts per million (ppm) to 5,000 ppm
iii.	Precision of the Measurements	3 significant figures
iv.	Accuracy of the Measurements	± 5% display reading ± one digit
v.	Calibration Reference Standards	Isobutylene
vi.	Calibration Procedures	The PID is factory-calibrated on an annual basis and the calibration was checked on a daily basis both prior to and after use in the field using 100 ppm isobutylene according to manufacturer procedures.

Field screening measurements (PID readings) are discussed in Section 6.3.1.2 and presented on the finalized borehole logs, included in Appendix C.

5.4 GROUNDWATER

5.4.1 GROUNDWATER MONITORING AND WELL INSTALLATION

Groundwater monitoring wells were installed at five (5) borehole locations (BH18-1S, BH8-2S, BH18-4, BH18-5 and BH18-7). The monitoring wells were installed upon completion of soil sampling activities and nitrile gloves were used to handle the well risers and screens during installation to minimize the potential for cross contamination during installation. Two (2) deep monitoring wells were installed as nested wells at BH18-1D and BH8-2D as part of the geotechnical and hydrogeological investigations.

Monitoring wells BH18-1S, BH8-2S, BH18-4, BH18-5 and BH18-7 were screened to intersect the suspected local groundwater table, based on observed conditions in the soil horizon (i.e. brown to grey colour change and/or observed change in moisture content) during the drilling and soil sampling activities. The wells were constructed using 50-mm Schedule 40 PVC riser and included a 3.1-m well screen (slot 10). A sand pack was placed in the borehole annulus around the well screen from the bottom of the well to approximately 0.6-m above the well screen. Bentonite holeplug seal was placed above the sand pack to surface. The wells were completed with flush mount and/or monument casings. The monitoring well construction details are shown on the attached borehole logs included as Appendix C.

5.4.2 GROUNDWATER FIELD MEASUREMENT OF WATER QUALITY PARAMETERS

The monitoring wells were purged using 13-mm LDPE Waterra tubing and an inertial pump (foot valve). The wells were purged by removing three well volumes or by purging the well dry three times. The wells were sampled on November 21, 27, December 6 and 12, 2018 using dedicated bailers. Field measurements of water quality parameters were collected using a Hanna multi-meter as part of this assessment including field pH, EC, and temperature. Field groundwater quality measurements were obtained after the removal of each well volume and were recorded in a dedicated field book. This data has been archived and is available upon request.

5.4.3 GROUNDWATER SAMPLING

On November 21, 27, December 6 and 12, 2018, groundwater samples were collected from the overburden wells. The samples were collected in laboratory-supplied bottles and stored in an ice-filled cooler. The groundwater samples were submitted under proper chain of custody procedures to Maxxam Laboratories in Mississauga for analysis of metals and ORPs, PHCs and VOCs.

5.5 SEDIMENT SAMPLING

Sediment sampling was not conducted as part of this Phase Two ESA.

5.6 ANALYTICAL TESTING

Soil and groundwater samples were submitted to Maxxam Laboratories in Mississauga, Ontario, for chemical analysis for the above listed parameters. Maxxam Laboratories is certified by CALA.

5.7 RESIDUE MANAGEMENT PROCEDURES

The management of residues such as soil cuttings, purge and development groundwater, and fluids from equipment cleaning was conducted as indicated in the table below.

Table 5.3 Summary of Residue Management Procedures

RESIDUE		MANAGEMENT PROCEDURE
i.	Soil cuttings from drilling and excavations	Soil cuttings were placed in drums pending the soil analysis for offsite disposal removed from the Phase Two Property by BT Mini Disposal
ii.	Water from well development and purging	Groundwater from the development and purging of the monitoring wells was emptied onto the ground downstream of the wells.
iii.	Fluids from equipment cleaning.	Equipment cleaning water was emptied onto the ground downstream of the wells.

5.8 ELEVATION SURVEY

The existing ground surface and top of pipe (well casing) elevations of the groundwater monitoring wells were surveyed with a reference to a local Mississauga Benchmark in November 2018. The ground surface elevations can be found on the borehole logs presented in Appendix C.

5.9 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

The project-specific QA/QC measures are described in the table below.

Table 5.4 Quality Assurance and Quality Control Measures

QA/QC MEASURE		DESCRIPTION
i.	Sample containers, preservation, labelling, handling, and custody for samples submitted for laboratory analysis, including any deviations from the SAP.	Soil samples from the boreholes were collected in 40 mL methanol-preserved vials for PHC F1/VOCs/BTEX analysis, and 120 mL glass jars without preservative for analysis of all other parameters at the sample locations. Groundwater samples from the monitoring wells were collected using the following laboratory supplied containers: VOCs – three (3) 40 mL glass vials preserved with a sodium bisulphate tablet PHC F1/BTEX – three (3) 40 mL glass vials preserved with a sodium bisulphate tablet PHC F2-F4 – two (2) 250 mL amber glass bottles preserved with a sodium bisulphate tablet Inorganics – one (1) 500 mL plastic 'general' bottle, no preservation

QA/QC MEASURE		DESCRIPTION
		Dissolved metals – one (1) 125 mL plastic bottle, HNO3 preservative Mercury – one (1) 100 mL clear glass bottle, HCl preservative Chromium VI – one (1) 125 mL plastic bottle, preserved with Ammonium Sulfate/Ammonium Hydroxide Cyanide – one (1) 125 mL plastic bottle, preserved with Sodium Hydroxide Groundwater samples were collected using dedicated sampling equipment for each well. Groundwater samples collected for dissolved metals, mercury, and chromium (VI) analysis were field filtered using a dedicated 0.45-micron filter. Groundwater containers used for PHC F1/BTEX and VOC analysis were filled to achieve zero headspace. Sample containers were labelled with unique sample identification, the project number, and the sampling date. A laboratory-supplied chain of custody was completed. A copy was sent with the samples to the laboratory, and one (1) copy was retained for the project file.
ii.	Equipment cleaning procedures during sampling	Nitrile gloves were replaced after each sample was collected to reduce the potential for cross-contamination of the samples. Field equipment was cleaned with soap and water, and was rinsed with distilled water between samples.
iii.	Field QC measures	Blind field duplicate samples of soil and groundwater were collected and submitted for laboratory analysis as part of this investigation. A laboratory-prepared VOC trip blank was brought to the Site during the groundwater sampling and was submitted to the laboratory for analysis.
iv.	Deviations from the procedures set out in the QA/QC program set out in the SAP.	None

Field duplicate samples were assessed as part of the QA/QC program through a comparison of the analytical results of the original samples to the field duplicate samples. Field duplicates measure the cumulative effects of both field and laboratory precision and hence provide an indication of overall precision. Therefore, field duplicates may have greater variability than laboratory duplicates which measure only laboratory precision. It is also expected that non-aqueous matrices will have a greater variance than aqueous matrices due to the heterogeneity of most non-aqueous samples (such as soil/sediment samples). Field duplicates were evaluated based on the relative percent difference (RPD) in parameter concentrations.

The RPD was calculated in accordance with the *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act* (July 1, 2011). The calculated RPD was assessed against the recommended performance criteria outlined in the 2011 Protocol where the measured concentration was greater than 5 times the MDL.

AGAT Laboratories also performed QA/QC procedures as outlined in their CALA procedures. These procedures included analysis of lab duplicates and blanks as well as analysis of surrogate recovery as outlined in the Certificates of Analysis provided in Appendix D.

6 REVIEW AND EVALUATION

6.1 GEOLOGY/SOIL STRATIGRAPHY

A brief summary of the subsurface conditions encountered at the Site is presented below. Detailed borehole logs are included in Appendix C.

All boreholes were advanced through fill material ranging in depth from approximately 0.9 to 2.1 mbgs. The fill material consisted of silty clay with trace sand and gravel and contained shale fragments, wood fragments and rootlets. Beneath the fill material, native deposits of silty clay till were encountered to depths ranging from 3.0 to 3.7 mbgs. Silty clay till/shale complex was encountered below the silty clay till unit which was encountered above the shale bedrock at depths ranging from 3.8 to 6.5 mbgs. Rock coring was completed in three (3) boreholes (BH18-1, BH18-2 and BH18-3).

6.2 HYDROGEOLOGY

6.2.1 ELEVATIONS AND FLOW DIRECTION

A summary of the groundwater elevations is presented in Table 1 and groundwater elevations from December 12, 2018 and inferred groundwater flow direction are presented on Figure 4. The December 12, 2018 groundwater elevations in the overburden monitoring wells till ranged from 1.9 to 3.2 mbgs (78.5 to 80.2 masl). The inferred groundwater flow direction is southwesterly. Subsurface utilities may be influencing the water levels, specifically for BH18-7. Groundwater flow direction can be influenced by seasonal fluctuation, utility services, and other subsurface features and can only be confirmed with long term monitoring.

Neither LNAPL nor DNAPL were found to be present in any of the monitoring wells on the Site.

6.2.2 HYDRAULIC GRADIENTS

The hydraulic gradient was calculated based on the December 12, 2018 groundwater elevations. The average horizontal hydraulic gradient was calculated to be 0.0023 based upon these measurements.

6.3 RESULTS OF ANALYSIS

The results of the laboratory analysis are discussed in the following sub-sections.

6.3.1 SOIL TEXTURE ANALYSIS

Results of the soil texture analysis are presented below.

Table 6.1 Soil Texture Analysis

CRITERIA	DESCRIPTION

i.	rationale for the use of soil texture category,	Three (3) soil samples from the native material underwent grain size analysis, the results of which indicated that all samples were classified as medium to fine grained, as defined by O.Reg. 153/04.
ii.	a description of the results of the required grain size analysis	The results of the five (5) grain size analysis showed that all samples contained more than 50% by mass of particles that are 75 µm or larger in mean diameter. BH18-1 SS4: 11% Gravel, 16% Sand, 45% Silt, 21% Clay BH18-2 SS3: 5% Sand, 61% Silt, 34% Clay BH18-5 SS5: 11% Gravel, 19% Sand, 46% Silt, 24% Clay
iii.	a description and rationale for the number of samples collected and analysed	The grain size analyses were conducted as part of the geotechnical investigation conducted concurrently with this Phase Two ESA. A total of three (3) samples were analyzed in order to characterize the soils across the Phase Two Property.

6.3.2 FIELD SCREENING

Forty-five (45) soil samples were screened for TOV using a PID. TOV concentrations ranged from 1.2 ppm to 6.9 ppm. The TOV readings are included on the borehole logs included in Appendix C. The samples that were submitted for laboratory analysis of organic parameters (VOCs, PHCs, or PAHs) are indicated in the borehole logs provided in Appendix C.

6.3.3 SOIL CHEMICAL QUALITY

The soil analytical results from the present investigation are presented in Tables 4 through Table 9 and summarized on Figure 5. The chemical exceedances in soil are presented in Figure 6.

The Laboratory Certificates of Analysis for the soil analysis completed during the present investigation are provided in Appendix D.

6.3.4 SOIL – METALS AND OTHER REGULATED PARAMETERS

Eight (8) soil samples were collected and submitted for analysis of metals and ORPs. Three (3) additional soil samples were submitted for analysis of EC and/or SAR for vertical delineation purposes. The soil analytical results for metals and ORPs are provided in Table 4. Laboratory analysis indicated the following parameter exceedances of Table 3 RPI SCS for ORPs in the fill and native material on Site, as summarized in Figure 6:

Table 6.2 Summary of Metal and ORP Exceedances in Soil

SAMPLE ID	DEPTH (MBGS)	PARAMETER	UNITS	TABLE 3 RPI SCS	ANALYTICAL RESULT
BH18-2 SS2	0.8-1.4	EC	mS/cm	0.7	**2.9**
		SAR	-	5	**24**
BH18-2 SS3	1.5-2.1	EC	mS/cm	0.7	**2.0**
BH18-2 SS4	2.3-2.9	EC	mS/cm	0.7	**1.8**

Notes:
Bold and Shaded: Concentration exceeds the MECP Table 3 RPI SCS

6.3.5 SOIL – PETROLEUM HYDROCARBONS AND BTEX

Eight (8) soil samples, including one (1) field duplicate for QA/QC purposes, were collected and submitted for analysis of PHCs and BTEX. The soil analytical results for PHCs and BTEX are provided in Table 5 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table 3 RPI SCS.

6.3.6 SOIL – VOLATILE ORGANIC COMPOUNDS

Eight (8) soil samples, including one (1) blind field duplicate for QA/QC purposes, were collected and submitted for analysis of VOCs. The soil analytical results for VOCs are provided in Table 6 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table RPI 3 SCS.

6.3.7 SOIL – POLYCYCLIC AROMATIC HYDROCARBONS

Eight (8) soil samples, including one (1) blind field duplicate for QA/QC purposes, were collected and submitted for analysis of PAHs. The soil analytical results for PAHs are provided in Table 7 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table 3 SCS.

6.3.8 SOIL – POLYCHLORINATED BIPHENYLS HYDROCARBONS

One (1) soil sample was collected and submitted for analysis of PCBs. The soil analytical results for PCBs is provided in Table 9 and the results of the laboratory analyses indicated that the sample analysed met the applicable Table 3 RPI SCS.

6.3.9 WASTE CHARACTERIZATION - TCLP

One (1) composite soil samples was collected during the drilling program and submitted for TCLP analysis of metals and inorganics, VOCs and PCBs. The TCLP laboratory analysis provided in Table 8 indicated that all concentrations met the Schedule IV Leachate Quality Criteria and can be considered a non-hazardous waste.

6.3.10 GROUNDWATER CHEMICAL QUALITY

The groundwater analytical results from the November and December 2018 sampling events are presented in Tables 10 through 12 and are summarized on Figure 7.

The Laboratory Certificates of Analysis for the groundwater analysis completed during the present Phase Two ESA are provided in Appendix D.

6.3.11 GROUNDWATER – METALS AND OTHER REGULATED PARAMETERS

Five (5) groundwater samples were collected and submitted for the analysis of metals and ORPs. The groundwater analytical results for metals and ORPs are provided in Table 10 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table 3 SCS.

6.3.12 GROUNDWATER - PETROLEUM HYDROCARBONS AND BTEX

Six (6) groundwater samples including one (1) QAQC duplicate were collected and submitted for the analysis of PHCs and BTEX. The groundwater analytical results for PHCs and BTEX are provided in Table 11 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table 3 SCS. It should be noted that a marginal exceedance for PHCs F2 was identified at BH18-4 during the November 21, 2018 groundwater sampling event. Two (2) subsequent groundwater sampling events reported the PHC F2 concentrations below the applicable Table 3 SCS for BH18-4.

6.3.13 GROUNDWATER– VOLATILE ORGANIC COMPOUNDS

Six (6) groundwater samples including one (1) QAQC duplicate were collected and submitted for the analysis of VOCs. The groundwater analytical results for VOCs are provided in Table 12 and the results of the laboratory analyses indicated that all samples analysed met the applicable Table 3 SCS.

6.3.14 SEDIMENT QUALITY

Sediment testing was not a part of this scope of work.

6.4 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS

Proper field protocols for sample collection and handling were followed by all WSP personnel in general accordance with the MECP *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*. All field equipment was decontaminated before and between sample collection and clean nitrile gloves were used for each sample to eliminate the potential for cross contamination of samples. All soil and groundwater samples were collected directly into laboratory-supplied containers, preserved as required, and stored and shipped in ice-filled coolers. Proper chain of custody procedures were followed by WSP and the laboratory during sample transfer.

The RPDs for the analyzed parameters in duplicate samples (where the RPD could be calculated) were within the 2011 Protocol performance criteria. As such, it is WSP's opinion that the laboratory analytical data is reliable and reproducible.

A summary of the field duplicate soil and groundwater samples, and the results of the QA/QC comparisons of the duplicate samples indicating that the results can be interpreted with confidence.

Table 6.3 Summary of QA/QC Results

DATE	MEDIA	SAMPLE ID	FIELD DUPLICATE ID	PARAMETERS	QA/QC RESULTS
2018-11-06	Soil	BH18-3 SS3	QAQC3	PHCs & BTEX	All results were within the 2011 Protocol criteria for RPD
2018-11-05		BH18-2 SS3	QAQC2	VOCs	
2018-11-01		BH18-1 SS2	QAQC-1	PAH	
2018-11-09		BH18-5 SS2	QAQC-4	PAH	

2018-11-21	Groundwater	BH18-1S	QAQC18-2	PHCs	All results were within the 2011 Protocol criteria for RPD
2018-11-21		BH18-5	QAQC18-1	VOCs	

A laboratory prepared trip blank travelled along with the November 21, 2018 groundwater samples and was analysed by the laboratory for VOCs. In addition, laboratory prepared trip blanks travelled along with the December 6 and 12, 2018 groundwater samples and were analysed by the laboratory for PHCs. All concentrations were below the RDL, indicating no contamination from the sample containers, preservatives, transportation, and storage conditions. The results also indicate that the laboratory instrument was not detecting false interference.

AGAT Laboratories carried out internal QA/QC measures including process recoveries, blanks, and replicate samples. The laboratory QA/QC results are provided on the Certificates of Analysis in Appendix D. The results were acceptable and therefore suitable for interpretation.

With respect to subsection 47 (3) of O.Reg. 153/04, all certificates of analysis of analytical reports received pursuant to clause 47 (2) (b) of the regulation comply with subsection 47(3), a certificate of analysis of analytical report has been received for each sample submitted for analysis, and all certificates of analysis or analytical reports received have been included in full in Appendix C to the Phase Two ESA report.

6.5 PHASE TWO CONCEPTUAL SITE MODEL

Through analysis and interpretation of the Phase One ESA, Phase One CSM, and field data gathered during this Phase Two ESA, a Phase Two CSM was developed.

Based on information obtained as part of the Phase One ESA, PCAs that occurred on the Site or within the Phase One Study Area are summarized in the table below. All PCAs including the number and location (if known) of USTs are illustrated on the Phase One CSM provided as Figure 1 and Figure 2.

Table 6.4 Summary of PCAs Identified in the Phase One ESA

PCAs	DESCRIPTION
PCA No. 8 Chemical Manufacturing, Processing and Bulk Storage	**Phase One Study Area** – Based on a review of the city directories, Abbie-Innes Manufacturing Ltd. Sanitary Chemical, was historically located at 795 1st Street, approximately 105 m north of the Phase One Property. **(APEC 6)** A review of the city directories HB Fuller-Monercher Inc. and Fuller B Canada Inc., industrial adhesives, coating, and sealant operations, a historically operated at 880 Rangeview Road, approximately 250 m south of the Site. Based on the location relative to inferred groundwater flow direction, and distance of the PCAs from the Site, these operations were not considered to be contributing to an APEC on-site.
PCA No. 10 Commercial Autobody Shops	**Phase One Study Area** – Based on a review of the city directories and current activities noted during the site reconnaissance, Speedy Glass and Wheels & Tires Ltd. operated at 811 Lakeshore Road East, and Ultimocar and E-Zee Wheels Auto Sales operated at 825 Lakeshore Road east, both approximately 10 m north of the Site. **(APEC 6)**
PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	**Phase One Study Area** – Based on a previous investigation of a neighbouring property, a historic UST was previously located at 930 East Avenue, south adjacent to the Phase One Property, prior to its removal in 2014. **(APEC 5)**

PCAs	DESCRIPTION
PCA No. 30 Importation of Fill Material of Unknow Quality	**Phase One Property** – Uneven grading was noted throughout the Phase One Property during the site reconnaissance, it is assumed that fill material was imported on to the Site. **(APEC 2)**
PCA No. 37 Operation of Dry Cleaning Equipment (where chemicals are used)	**Phase One Study Area** – Based on a review of the city directories, Superior Cleaners historically operated at 791 Lakeshore Road East, approximately 10 m north of the Phase One Property. **(APEC 6)**
PCA No. 54 Textile Manufacturing and Processing	**Phase One Study Area** – Based on a review of the city directories, Duralite Furniture Manufacturing historically operated at 795 1st Street, approximately 105 m north of the Phase One Property. **(APEC 6)**
PCA No. 55 Transformer Manufacturing, Processing and Use	**Phase One Property** – A transformer was noted in the middle of the Phase One Property during the site reconnaissance. **(APEC 3)**
PCA No. 58 Waste Disposal and Waste Treatment, including thermal treatment, landfilling and transfer of conditioners	**Phase One Study Area** – One (1) property within the Phase One Study Areas was the location of a former landfilling operation and eight (8) properties within the Phase One Study Area were registered in the O.Reg. 347 database for the generation, use and/or storage of various wastes, including 930 East Avenue, located south adjacent to the Phase One Property, was registered for the generation, use, and/or storage of inorganic chemical waste, aliphatic solvents and residues, petroleum distillates, waste oils/sludges, and organic chemical waste. The additional addresses included 830, 872, 880, 885 Lakeshore Road East, 863, 850, 865 Rangeview Road. **(APEC 4)**
PCA No. N/S A Application of De-icing Compounds	**Phase One Property** – Vehicle parking lots were noted on the Phase One Property during the site reconnaissance and it is assumed that it has been subject to de-icing compounds. **(APEC 1)**

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

Based on a review of the above-noted PCAs, the following APECs were identified on the Site. The table of APECs presented in the form as approved by the Director is provided below. The table was prepared in accordance with clause 16(2) (a), Schedule D, O.Reg. 153/04.

Table 6.5 Summary of APECs Identified in Phase One ESA

AREA OF POTENTIAL ENVIRONMENTAL CONCERN	LOCATION OF POTENTIAL ENVIRONMENTAL CONCERN ON PHASE ONE PROPERTY	POTENTIALLY CONTAMINATING ACTIVITY	LOCATION OF PCA (ON-SITE OR OFF-SITE)	POTENTIAL CONTAMINANTS OF CONCERN	MEDIA POTENTIALLY IMPACTED (GROUND WATER, SOIL AND/OR SEDIMENT)
APEC-1	East portion of Phase One Property (vicinity of parking area)	PCA No. N/S A Application of De-Icing Compounds	On-site	Na, Cl-, electrical conductivity, SAR	Soil & Groundwater
APEC-2	Entire Phase One Property	PCA No. 30 Importation of Fill Material of Unknown Quality	On-site	Metals, As, Sb, Se, B-HWS, CN-, electrical conductivity, Cr (VI), Hg, low or high pH, SAR, PAHs	Soil
APEC-3	Vicinity of on-site transformer	PCA No. 55 Transformer Manufacturing, Processing and Use	On-site	PCBs	Soil
APEC-4	Southeastern Portion of the Phase One Property	PCA No. 58 Waste Disposal and Waste Management, including thermal treatment, landfilling and transfer of conditioners	Off-site	VOCs, Metals, As, Sb, Se, Na, B-HWS, Cl-, CN-, Cr (VI), Hg	Groundwater
APEC- 5	Southeastern Portion of the Phase One Property	PCA No. 28 Gasoline and Associated Products Storage in Fixed Tanks	Off-site	PHCs, BTEX	Soil & Groundwater
APEC-6	Northern Portion of the Phase One Property	PCA No. 8 Chemical Manufacturing, Processing and Bulk Storage	Off-site	VOCs	Groundwater
		PCA No. 10 Commercial Autobody Shop		PHCs, VOCs, metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Na, Cl-, Hg	

		PCA No. 34 Metal Fabrication		Metals, As, Sb, Se, B-HWS, CN-, Cr (VI), Na, Cl-, Hg	
		PCA No. 37 Operation of Dry Cleaning Equipment (where chemicals are used)		VOCs	
		PCA No. 54 Textile Manufacturing and Processing		VOCs	

The Phase One CSM (Figure 1 and Figure 2) and the Phase Two CSM (Figure 3 through Figure 10) prepared for the Site incorporates the information and data collected as part of the Phase One and Phase Two ESAs. The following table provides a summary discussion of the interpreted field data that is incorporated into the CSM.

Table 6.6 Summary of Phase Two CSM

CRITERIA	DISCUSSION
i. a description and assessment of, a. areas where a PCA have occurred, b. APECs, and c. any subsurface structures and utilities on, in or under the phase two property that may affect contaminant distribution and transport.	a. The Phase One ESA completed by WSP concurrently with this Phase Two ESA identified PCAs on the Site and within the Phase One Study Area, as outlined in Table 6.3 above, and depicted on Figure 1 and Figure 2. b. The PCAs that were identified as contributing to on-site APECs are discussed in Table 6.3 above. The table of APECs presented in the form as approved by the Director is provided in Table 6.4, above. c. Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface. Two (2) watermains and two (2) sanitary forcemains are located in the open area to the west of 958 East Avenue building. Gas and electrical services entered the Phase Two Property from the north.
ii. a description of and, as appropriate, figures illustrating, the physical setting of the phase two property and any areas under it including, a. stratigraphy from ground surface to the deepest aquifer or aquitard investigated, b. hydrogeological characteristics, including aquifers, aquitards and, in each hydrostratigraphic unit where one or more contaminants is present at concentrations above the applicable site condition standards, lateral and vertical gradients, c. approximate depth to bedrock, d. approximate depth to water table, e. any respect in which section 41 or 43.1 of the regulation applies to the property, f. areas where soil has been brought from another property	a. All boreholes were advanced through fill material ranging in depth from approximately 0.9 to 2.1 mbgs. The fill material consisted of silty clay with trace sand and gravel and contained shale fragments, wood fragments and rootlets. Beneath the fill material, native deposits of silty clay till were encountered to depths ranging from 3.0 to 3.7 mbgs. Silty clay till/shale complex was encountered below the silty clay till unit which was encountered above the shale bedrock at depths ranging from 3.8 to 6.5 mbgs. Rock coring was completed in three (3) boreholes (BH18-1, BH18-2 and BH18-3). b. The silty clay till is considered an unconfined overburden aquifer, and the underlying bedrock is considered an aquitard. No exceedances of the Table 3 SCS were identified in the overburden monitoring wells. The average horizontal hydraulic gradient was calculated to be 0.0023. The vertical hydraulic gradient for BH18-2S and BH18-2D was 0.3 down. c. The depth to bedrock encountered on site ranged from 3.8 to 6.5 mbgs. d. The depth to shallow groundwater in the overburden ranged from 1.9-3.2 mbgs (79.6 to 80.2 masl) based on the December 12, 2018 water levels. e. Neither section 41 or section 43.1 apply to the Site as: The Henslow's Sparrow (bird) has been listed as endangered by SARO and COSEWIC. The Henslow's Sparrow was last observed within 1 km of the Phase One Property in 1932. Given that the last sighting was in 1932, it is not anticipated that there are any

<table>
<tr><th>CRITERIA</th><th>DISCUSSION</th></tr>
<tr><td>and placed on, in or under the phase two property, and
g. approximate locations, if known, of any proposed buildings and other structures</td><td>Henslow's Sparrows utilizing the Site or nearby neighbouring properties as habitat.
The American Eel (fish) has been listed as endangered by SARO and COSEWIC. The American Eel is a fish species; therefore, it is found in waterbodies. As the nearest waterbody, Lake Ontario, is approximately 500 m south of the Phase One Property it is not anticipated that there are any American Eel's utilizing the Site or neighbouring properties as habitat.
The Barn Swallow (bird) has been listed as threatened by SARO and COSEWIC. According to the MNRF, the barn shallows are found in open structures almost exclusively their habitats are in barns, under bridges, and in culverts. Given that there are no open structures located on the Phase One Property or within the Phase One Study Area it is not anticipated that there are any Barn Swallow's habitats on the Site or the neighbouring properties.
The soil at the property has a pH value between 5 and 9
f. Soil was not brought from another property and placed on, in, or under the Site, as part of this Phase Two ESA.
g. The Site is proposed for redevelopment as a 7-storey residential building with one (1) level of underground parking. The location of building structure is proposed to be constructed on the east portion of the Site with above grade parking on the west side.</td></tr>
<tr><td>iii. where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard, identification of,
a. each area where a contaminant is present on, in or under the phase two property at a concentration greater than the applicable site condition standard,
b. the contaminants associated with each of the areas referred to in subparagraph A,
c. each medium in which a contaminant associated with an area referred to in subparagraph is present,
d. a description and assessment of what is known about each of the areas referred to in subparagraph A,</td><td><table><tr><th>a.</th><th>b.</th><th>c.</th></tr><tr><td>Fill and native soils in the vicinity of the southeast parking lot</td><td>▪ SAR
▪ EC</td><td>Soil</td></tr></table>d. What is known about the areas of environmental impact:
Overburden Soils:
Elevated EC/SAR levels in soil were identified during this investigation in the fill and native soils in the area of the tenant parking lot near the southeast portion of the Site. It is possible that the application of de-icing agents to East Avenue may be contributing to the elevated levels of EC/SAR.
e. The horizontal distribution of contaminants in soil and groundwater on Site are presented in Figures 6 and 8. Based on the soil analytical results, the vertical extent of the EC/SAR impacts appears to be localized to depth of approximately 3.0 mbgs.</td></tr>
</table>

CRITERIA	DISCUSSION
e. the distribution, in each of the areas referred to in subparagraph A, of each contaminant present in the area at a concentration greater than the applicable site condition standard, for each medium in which the contaminant is present, together with figures showing the distribution, f. anything known about the reason for the discharge of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard into the natural environment, g. anything known about migration of the contaminants present on, in or under the phase two property at a concentration greater than the applicable site condition standard away from any APEC, including the identification of any preferential pathways, h. climatic or meteorological conditions that may have influenced distribution and migration of the contaminants, such as temporal fluctuations in groundwater levels, and i. if applicable, information concerning soil vapour intrusion of the contaminants into buildings including, 1. relevant construction features of a building, such as a basement or crawl space, 2. building heating, ventilating and air conditioning design and operation, and	f. The presence of EC/SAR impacts in soil is likely associated with the application of de-icing agents along East Avenue and on the private parking lot. g. Migration of these contaminants will be affected by water infiltration and groundwater flow. h. The southeast portion of the Site consists of an asphalt paved parking lot with several concrete walkways to the two (2) onsite buildings. The remaining portions of the site consists of grassed area with limited landscaping. Climatic and/or meteorological conditions are not considered to have greatly influenced the distribution or migration of the contaminants in the southeast portion as this area consists of asphalt, although stormwater infiltration may have affected the infiltration of de-icing agents. i. Given the nature of the contaminants identified in this investigation, vapour intrusion is not a concern.

CRITERIA	DISCUSSION
3. subsurface utilities,	
iv. where contaminants on, in or under the phase two property are present at concentrations greater than the applicable site condition standard, one or more cross-sections showing, a. the lateral and vertical distribution of a contaminant in each area where the contaminants is present at concentrations greater than the applicable site condition standard in soil, groundwater and sediment, b. approximate depth to water table in each area referred to in subparagraph A, c. stratigraphy from ground surface to the deepest aquifer or aquitard investigated, and d. any subsurface structures and utilities that may affect contaminant distribution and transport in each area referred to in subparagraph A	a. Plan view and cross-section view figures that indicate the horizontal distribution of contaminants are provided as: Figure 6 Chemical Exceedances in Soil - ORPs Figure 8 Cross Section A-A' and B-B' with Chemical Exceedances in Soil - ORPs b. Groundwater levels are provided in Figure 4. c. Stratigraphy from ground surface to the deepest strata investigated is provided in cross-sections on Figure 9. d. Underground utilities can affect contaminant distribution and transport. Trenches excavated to install utility services, and the associated granular backfill may provide preferential pathways for horizontal contaminant migration in the shallow subsurface. Two (2) watermains and two (2) sanitary forcemains are located in the open area to the west of 958 East Avenue building. Gas and electrical services entered the Phase Two Property from the north
v. for each areas where a contaminant is present on, in or under the property at a concentration greater than the applicable site condition standard for the contaminant, a diagram identifying, with narrative explanatory notes, a. the release mechanisms, b. contaminant transport pathway, c. the human and ecological receptors located on, in or under the phase two property, d. receptor exposure points, and routes of exposure.	The release mechanism was identified as the applicable of de-icing agents to the private parking lot contributing to EC/ SAR impacts. The impacted media is the upper fill and native soils. Human receptors are not anticipated to be impacted by the elevated concentrations of EC/SAR as these parameters are primarily related to plant growth and are not anticipate do not pose a human health concern. The applicable ecological receptors and contaminant transport/ exposure pathways include: Ecological Receptors: — Plants — Terrestrial Invertebrates — Mammals & Birds Transport/Exposure routes of contaminants to ecological receptors:

CRITERIA	DISCUSSION
	— Ingestion of soil contaminants (direct) — Immersion in soil contaminants (direct) — Plant root uptake (direct) — Ingestion of plants (indirect) — Ingestion of invertebrates (indirect) — Ingestion of animal prey (indirect) A summary of the release mechanism, contaminant transport pathway and receptors is depicted in Figure 9 and Figure 10.

7 CONCLUSIONS

Based on the Phase Two ESA, WSP presents the following findings:

— Fill material was identified in all boreholes at depth ranging from approximately 0.9 to 2.1 mbgs. The fill material consisted of silty clay with trace sand and gravel and contained shale fragments, wood fragments and rootlets. Beneath the fill material, native deposits of silty clay till were encountered to depths ranging from 3.0 to 3.7 mbgs. Silty clay till/shale complex was encountered below the silty clay till unit which was encountered above the shale bedrock at depths ranging from 3.8 to 6.5 mbgs. Rock coring was completed in three (3) boreholes (BH18-1D, BH18-2D and BH18-3).

— The depth to groundwater was recorded in the overburden monitoring wells (BH18-1S, BH18-2S, BH18-4, BH18-5 and BH18-7) installed during the current investigation. The groundwater levels were found to range between 1.9 and 3.2 mbgs and the groundwater elevations ranged between 78.0 and 80.2 m masl. Based on the levels recorded, the groundwater flow direction appears to be southwesterly. However, subsurface utilities may be influencing the water levels, specifically for BH18-7. Groundwater flow direction can be influenced by seasonal fluctuation, utility services, and other subsurface features and can only be confirmed with long term monitoring.

— The soil and groundwater analytical results were compared to 2011 MECP Table 3 Full Depth Generic SCS in a Non-Potable Groundwater Condition for RPI Use.

— A total of thirty-six (36) soil samples, and four (4) QA/QC samples, were submitted to the laboratory and analysed for PCOCs including: metals and ORPs, PHCs, VOCs, PAHs and PCBs. The results of the analyses indicated the following exceedances of the MECP Table 3 RPI SCS.

Table 7.1 Summary of Exceedances in Soil

SAMPLE ID	DEPTH (MBGS)	PARAMETER	UNITS	TABLE 3 RPI SCS	ANALYTICAL RESULT
BH18-2 SS2	0.8-1.4	EC	mS/cm	0.7	**2.9**
		SAR	-	5	**24**
BH18-2 SS3	1.5-2.1	EC	mS/cm	0.7	**2.0**
BH18-2 SS4	2.3-2.9	EC	mS/cm	0.7	**1.8**

Notes:

Bold and Shaded: Concentration exceeds the MECP Table 3 RPI SCS

— In November and December 2018, groundwater samples were obtained from the five (5) overburden monitoring wells and submitted for analysis of metals and ORPs, PHCs, and VOCs. The groundwater analytical results indicated all samples met the MECP Table 3 SCS with the exception of elevated F2 concentrations at BH18-4, located on the south portion of the Site. As this concentration marginally exceeded the MECP Table 3 SCS, redevelopment and resampling was conducted and two (2) subsequent groundwater sampling events indicated the concentrations met the MECP Table 3 SCS for PHCs. As the two (2) most recent sampling events at BH18-4 met the MECP Table 3 SCS for PHCs, the original groundwater exceedance may be an anomaly and not representative of the actual groundwater conditions at this location.

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

- Soils impacted with elevated EC and/or SAR are present on the property at one (1) borehole location in the vicinity of the private parking lot and were found at depths ranging from 0.8-2.9 mbgs.
- All groundwater samples collected met the MECP Table 3 SCS for the parameters analyzed.
- As the property is proposed to be developed from residential to residential (no change in property use) a RSC may be required as part of site development by lower tier municipalities. Remediation of soil impacted with EC/SAR followed by confirmatory sampling would be required to support an RSC filing. Alternatively, if remediation is not considered feasible, a RA can be conducted instead of, or in conjunction with remediation.
- In the case of either remediation or RA, further assessment of the extent of impacts (particularly horizontal extent) will be required to further investigate the EC/SAR impacts.
- All monitoring wells should be decommissioned in accordance with O.Reg. 903 when no longer required.

7.1 QUALIFIER

This assignment is limited to the completion of a Phase Two ESA and analysis of potential contamination at the selected borehole locations. This report is prepared for the Region of Peel's sole use in the evaluation of the property at 958-960 East Avenue, Mississauga, ON.

The Phase Two ESA, sampling, and laboratory analyses were completed as documented in the report. Extrapolation of data beyond the borehole locations assumes that homogenous conditions exist beyond the sampling locations, which may not be the case. Therefore, it is not feasible to state conclusively, that the subsurface conditions encountered during this investigation exist beyond the sampled locations.

The conclusions provided in this report reflect our best judgment in light of the information available at the time of report preparation. Any use, which a third party makes of this report, or any reliance on or any decisions to be made based on it, is the responsibility of such third parties. WSP accepts no responsibility for damages, if any, suffered by any third party because of decisions or actions taken, based on this report. Conclusions documented in this report do not apply to other land uses. It is understood that Site conditions, environmental or otherwise, are not static and that this report documents Site conditions at the time of the investigation.

7.2 QUALIFICATIONS OF THE ASSESSORS

This report was reviewed by Mr. Michael Wilson, C.E.T., who is currently an Environmental Project Manager in the Toronto, Ontario office of WSP Canada Inc. Mr. Wilson has experience in conducting Phase One and Two ESAs on numerous residential, commercial, and industrial properties.

This report was reviewed by Marty Barons, P.Eng., QP_{ESA}, an Environmental Engineer in the Toronto, Ontario Office of WSP Canada Inc. Marty holds a Bachelors of Applied Science Degree in Environmental Engineering, and is a recognized Professional Engineer in Ontario since 2008. He has conducted and managed dozens of environmental investigations including Phase One ESAs, Phase Two ESAs, and various site remediation projects across Ontario. Marty is a Qualified Person (QP_{ESA}) under the MECP O.Reg. 153/04.

8 REFERENCES

- Ontario Ministry of the Environment, Conservation and Parks (MECP). 1996. Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario. December 1996.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2011a. Ontario Regulation 153/04, as amended, made under the Environmental Protection Act. July 1, 2011.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2011b. Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act. July 1, 2011.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2011c. Protocol for Analytical Methods Used in the Assessment of Properties under Past XV.1 of the Environmental Protection Act. July 1, 2011.
- Ontario Ministry of the Environment, Conservation and Parks (MECP). 2013. Ontario Regulation 903: "Wells." R.R.O. 1990, under the Ontario Water Resources Act, as amended by O.Reg. 331/13.
- WSP Canada Inc. (WSP). 2018. Phase One Environmental Site Assessment, 958-960 East Avenue, Mississauga, ON. October 23, 2018

TABLES

Notes for Soil & Groundwater Summary Tables

1. mbgs = metres below ground surface
2. ORPs = other regulated parameters
3. PHCs = petroleum hydrocarbons
4. VOCs = volatile organic compounds
5. PAHs = polycyclic aromatic hydrocarbons
6. - = parameter not analyzed
7. Units for all soil analyses are in µg/g (ppm) unless otherwise indicated
8. Units for all groundwater analyses are in µg/L (ppb) unless otherwise indicated
9. Table 3 = Full Depth Generic Site Condition Standards in a Non Potable Ground Water Condition with Medium to Fine Textured Soils as contained in Table 3 of the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, published by the MOECP on April 15, 2011
10. For soil and groundwater analytical results: bold = Concentration exceeds the 2011 MECP Table 3 SCS

Table 1 Monitoring Well Installation and Groundwater Levels

Monitoring Well ID			BH18-1S	BH18-1D	BH18-2S	BH18-2D	BH18-4	BH18-5	BH18-7
Installed By			WSP	WSP	WSP	WSP	WSP	WSP	WSP
Installation Date			2-Nov-18	2-Nov-18	6-Nov-18	6-Nov-18	8-Nov-18	9-Nov-18	9-Nov-18
Well Status			Active	Active	Active	Active	Active	Active	Active
Well Inner Diameter		(mm)	50	50	50	50	50	50	50
Top of Pipe Elevation		(masl)	83.32	83.32	82.08	82.08	82.82	83.09	82.64
Ground Surface Elevation		(masl)	82.43	82.43	82.08	82.08	81.93	82.20	81.75
Bottom of Concrete Seal/Top of Bentonite Seal		(mbgs)	0.3	0.3	0.3	0.3	0.3	0.3	0.3
		(masl)	82.13	82.13	81.78	81.78	81.63	81.90	81.45
Bottom of Bentonite Seal/Top of Sand Pack		(mbgs)	1.0	10.2	1.0	8.0	1.0	1.0	1.0
		(masl)	81.4	72.2	81.1	74.1	80.9	81.2	80.8
Top of Well Screen		(mbgs)	1.6	10.8	1.6	8.6	1.6	1.6	1.6
		(masl)	80.8	71.6	80.5	73.5	80.3	80.6	80.1
Screen Length		(m)	3.0	1.5	3.0	1.5	2.7	3.0	3.0
Bottom of Screen		(mbgs)	4.6	12.3	4.6	10.1	4.3	4.6	4.6
		(masl)	77.8	70.1	77.5	72.0	77.6	77.6	77.1
14-Nov-18	Depth of GW	(mbgs)	2.8	2.1	2.1	5.2	1.9	1.9	Dry
	GW Elevation	(masl)	79.6	80.3	80.0	76.9	80.0	80.3	Dry
21-Nov-18	Depth of GW	(mbgs)	3.0	3.0	1.5	5.2	1.8	2.1	4.0
	GW Elevation	(masl)	79.5	79.5	80.6	76.9	80.1	80.1	77.7
12-Dec-18	Depth of GW	(mbgs)	2.9	2.2	1.9	4.1	2.0	2.1	3.2
	GW Elevation	(masl)	79.6	80.3	80.2	78.0	80.0	80.1	78.5
19-Dec-18	Depth of GW	(mbgs)	3.0	2.1	2.1	4.1	2.0	2.2	3.3
	GW Elevation	(masl)	79.4	80.3	80.0	78.0	80.0	80.0	78.5

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 2 Summary of Soil Samples Submitted for Chemical Analysis

Borehole ID	Sample ID	Depth (mbgs)	Date	Soil Type	Laboratory Analyses
BH18-1	SS1	0.0 - 0.6	1-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Silty Clay Till	PAHs
	QAQC-1				PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
BH18-2	SS2	0.8 - 1.4	5-Nov-18	Fill - Silty Clay	Metals and ORPs, PAHs
	SS3	1.5 - 2.1		Silty Clay Till	EC/SAR, VOCs, PHCs and BTEX
	QAQC-2				VOCs
BH18-3	SS1	0.0 - 0.6	6-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Fill - Silty Clay	PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
	QAQC-3				PHCs and BTEX
BH18-4	SS1	0.0 - 0.6	8-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Fill - Silty Clay	PAHs
	SS3	1.5 - 2.1		Fill - Silty Clay	PHCs and BTEX, VOCs
BH18-5	SS1	0.0 - 0.6	9-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Fill - Silty Clay	PAHs
	QA/QC-4				PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
BH18-6	SS1	0.0 - 0.6	8-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Silty Clay Till	PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
BH18-7	SS1	0.0 - 0.6	9-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Silty Clay Till	PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
BH18-8	SS1	0.0 - 0.6	8-Nov-18	Fill - Silty Clay	Metals and ORPs
	SS2	0.8 - 1.4		Silty Clay Till	PAHs
	SS3	1.5 - 2.1		Silty Clay Till	PHCs and BTEX, VOCs
TP18-1	S1A	0-0.3	2-Nov-18	Fill - Silty Clay	PCBs

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis

Monitoring Well ID	Screened Interval (mbgs)	Date	Parameters		
			M&ORP	PHCs	VOCs
BH18-1S	1.5-4.6	21-Nov-18	✓	✓	✓
QAQC 18-2			-	✓	-
BH18-2S	4.5-4.6	21-Nov-18	✓	✓	✓
BH18-4	1.5-4.3	21-Nov-18	✓	✓	✓
BH18-4		6-Dec-18	-	✓	-
BH18-4		12-Dec-18	-	✓	-
BH18-5	1.5-4.6	21-Nov-18	✓	✓	✓
QAQC 18-1			-	-	✓
BH18-7	1.5-4.6	21-Nov-18	✓	✓	✓

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 4 Soil Analytical Results - Metals&ORPs

Parameter		BH18-1 SS1	BH18-2 SS2	BH18-2 SS3	BH18-2 SS4	BH18-2 SS5	BH18-3 SS1	BH18-4 SS1
Date of Collection	Table 3 RPI MFT	Nov 01, 2018	Nov 05, 2018	Nov 05, 2018	Nov 05, 2018	Nov 05, 2018	Nov 06, 2018	Nov 08, 2018
Date Reported		Nov 12, 2018	Nov 14, 2018	Nov 14, 2018	Nov 30, 2018	Nov 30, 2018	Nov 14, 2018	Nov 19, 2018
Sampling Depth (mbgs)		0 - 0.6	0.8 - 1.4	1.5-2.1	2.3-2.9	3.0-3.7	0 - 0.6	0-0.6
Analytical Report Reference No.		IET106	IFR992	IFR993	IHZ422	IHZ423	IFR995	IGK826
Antimony	7.5	<0.20	<0.20	-	-	-	0.21	0.86
Arsenic	18	4	4.9	-	-	-	5	4.9
Barium	390	78	140	-	-	-	69	69
Beryllium	5	0.72	1.2	-	-	-	0.75	0.5
Boron (Hot Water Soluble)	1.5	0.21	0.27	-	-	-	0.1	0.45
Cadmium	1.2	0.17	0.15	-	-	-	0.21	0.25
Chromium	160	22	35	-	-	-	21	16
Chromium VI	10	<0.2	<0.2	-	-	-	<0.2	<0.2
Cobalt	22	10	16	-	-	-	10	6.4
Copper	180	22	31	-	-	-	24	22
Lead	120	23	13	-	-	-	23	35
Mercury	1.8	<0.050	<0.050	-	-	-	<0.050	0.058
Molybdenum	6.9	<0.50	<0.50	-	-	-	<0.50	<0.50
Nickel	130	20	36	-	-	-	21	13
Selenium	2.4	<0.50	<0.50	-	-	-	<0.50	<0.50
Silver	25	<0.20	<0.20	-	-	-	<0.20	<0.20
Thallium	1	0.14	0.2	-	-	-	0.14	0.1
Vanadium	86	31	47	-	-	-	31	25
Zinc	340	67	79	-	-	-	76	79
pH (pH Units)	5 to 9	7.49	7.76	-	-	-	7.66	7.55
Conductivity (ms/cm)	0.7	0.32	**2.9**	**2**	**1.8**	0.44	0.26	0.32
Sodium Adsorption Ratio	5	1.4	**24**	3.5	-	-	2.2	1.5
Cyanide, Free	0.051	<0.01	0.01	-	-	-	<0.01	0.01
Chloride	NA	-	-	-	-	-	-	-
Boron (Total)	120	6.2	10	-	-	-	7.3	5.3
Uranium	23	0.63	0.63	-	-	-	0.61	0.53

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 4 Soil Analytical Results - Metals&ORPs

Parameter		BH18-5 SS1	BH18-6 SS1	BH18-7 SS1	BH18-8 SS1
Date of Collection	Table 3 RPI MFT	Nov 09, 2018	Nov 08, 2018	Nov 09, 2018	Nov 08, 2018
Date Reported		Nov 19, 2018	Nov 19, 2018	Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		0-0.6	0-0.6	0-0.6	0-0.6
Analytical Report Reference No.		IGS370	IGK829	IGS373	IGK832
Antimony	7.5	<0.20	<0.20	<0.20	0.26
Arsenic	18	5.1	4.2	2.7	3.6
Barium	390	56	47	54	80
Beryllium	5	0.74	0.58	0.48	0.7
Boron (Hot Water Soluble)	1.5	0.23	0.17	0.34	0.28
Cadmium	1.2	0.14	0.17	0.12	0.14
Chromium	160	23	17	18	21
Chromium VI	10	<0.2	<0.2	<0.2	0.3
Cobalt	22	14	9.9	7.1	9.3
Copper	180	30	23	13	20
Lead	120	14	17	18	19
Mercury	1.8	<0.050	<0.050	<0.050	<0.050
Molybdenum	6.9	<0.50	<0.50	<0.50	<0.50
Nickel	130	30	21	15	23
Selenium	2.4	<0.50	<0.50	<0.50	<0.50
Silver	25	<0.20	<0.20	<0.20	<0.20
Thallium	1	0.13	0.11	0.13	0.14
Vanadium	86	30	26	27	31
Zinc	340	76	57	56	63
pH (pH Units)	5 to 9	7.55	7.66	6.66	6.69
Conductivity (ms/cm)	0.7	0.29	0.19	0.13	0.12
Sodium Adsorption Ratio	5	1.3	0.24	0.49	0.29
Cyanide, Free	0.051	<0.01	<0.01	<0.01	<0.01
Chloride	NA	-	-	-	-
Boron (Total)	120	9.4	6.2	<5.0	<5.0
Uranium	23	0.67	0.51	0.41	0.5

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 5 Soil Analytical Results - PHCs & BTEX

Parameter		BH18-1 SS3	BH18-2 SS3	BH18-3 SS3	QAQC3	BH18-4 SS3	BH18-5 SS3	BH18-6 SS3
Date of Collection	Table 3 RPI MFT	Nov 01, 2018	Nov 05, 2018	Nov 06, 2018	Nov 06, 2018	Nov 08, 2018	Nov 09, 2018	Nov 08, 2018
Date Reported		Nov 12, 2018	Nov 14, 2018	Nov 14, 2018	Nov 14, 2018	Nov 19, 2018	Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		1.5 - 2.1	1.5 - 2.1	1.5 - 2.1		1.5-2.1	1.5-2.1	1.5-2.1
Analytical Report Reference No.		IET109	IFR993	IFR997	IFR998	IGK828	IGS372	IGK831
Benzene	0.17	<0.02	<0.02	<0.02	<0.02	<0.020	<0.020	<0.020
Toluene	6	<0.05	<0.05	<0.05	<0.05	<0.020	<0.020	<0.020
Ethylbenzene	15	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
F1 (C6 to C10) minus BTEX	65	<10	<10	<10	<10	<10	<10	<10
F2 (C10 to C16)	150	<10	<10	<10	<10	56	<10	<10
F3 (C16 to C34)	1300	<50	<50	<50	<50	83	<50	<50
F4 (C34 to C50)	5600	<50	<50	<50	<50	<50	<50	<50

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 5 Soil Analytical Results - PHCs & BTE

Parameter		BH18-7 SS3	BH18-8 SS3
Date of Collection	Table 3 RPI MFT	Nov 09, 2018	Nov 08, 2018
Date Reported		Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		1.5-2.1	1.5-2.1
Analytical Report Reference No.		IGS375	IGK834
Benzene	0.17	<0.020	<0.020
Toluene	6	<0.020	<0.020
Ethylbenzene	15	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020
F1 (C6 to C10) minus BTEX	65	<10	<10
F2 (C10 to C16)	150	<10	<10
F3 (C16 to C34)	1300	<50	<50
F4 (C34 to C50)	5600	<50	<50

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 6 Soil Analytical Results - VOCs

Parameter		BH18-1 SS3	BH18-2 SS3	QAQC2	BH18-3 SS3	BH18-4 SS3
Date of Collection	Table 3 RPI MFT	Nov 01, 2018	Nov 05, 2018	Nov 05, 2018	Nov 06, 2018	Nov 08, 2018
Date Reported		Nov 12, 2018	Nov 12, 2018	Nov 14, 2018	Nov 14, 2018	Nov 19, 2018
Sampling Depth (mbgs)		1.5 - 2.1	1.5 - 2.1		1.5 - 2.1	1.5 - 2.1
Analytical Report Reference No.		IET109	IFR993	IFR994	IFR997	IGK828
Acetone	28	<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	0.17	<0.020	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	13	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	0.26	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon Tetrachloride	0.12	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	2.7	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	0.18	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	9.4	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	4.3	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	6	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	0.097	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	11	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Cis-1,2-Dichloroethylene	30	<0.050	<0.050	<0.050	<0.050	<0.050
Trans-1,2-Dichloroethylene	0.75	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	0.085	<0.050	<0.050	<0.050	<0.050	<0.050
Cis-1,3-Dichloropropylene	NV	<0.030	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040	<0.040	<0.040	<0.040	<0.040
Ethylbenzene	15	<0.020	<0.020	<0.020	<0.020	<0.020
Ethylene Dibromide	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	44	<0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	0.96	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Isobutyl Ketone	4.3	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl-t-Butyl Ether	1.4	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	2.2	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	6	<0.020	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	2.3	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	3.4	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	0.52	<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl Chloride	0.022	<0.020	<0.020	<0.020	<0.020	<0.020
m-Xylene & p-Xylene	NV	<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene	NV	<0.020	<0.020	<0.020	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	25	<0.050	<0.050	<0.050	<0.050	<0.050
Dioxane, 1,4-	1.8	-	-	-	-	-
Hexane(n)	34	<0.050	<0.050	<0.050	<0.050	<0.050
Trichlorofluoromethane	5.8	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichloropropene (cis + trans)	0.083	<0.050	<0.050	<0.050	<0.050	<0.050

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 6 Soil Analytical Results - VOCs

Parameter		BH18-5 SS3	BH18-6 SS3	BH18-7 SS3	BH18-8 SS3
Date of Collection	Table 3 RPI MFT	Nov 09, 2018	Nov 08, 2018	Nov 09, 2018	Nov 08, 2018
Date Reported		Nov 19, 2018	Nov 19, 2018	Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		1.5-2.1	1.5 - 2.1	1.5-2.1	1.5 - 2.1
Analytical Report Reference No.		IGS372	IGK831	IGS375	IGK834
Acetone	28	<0.50	<0.50	<0.50	<0.50
Benzene	0.17	<0.020	<0.020	<0.020	<0.020
Bromodichloromethane	13	<0.050	<0.050	<0.050	<0.050
Bromoform	0.26	<0.050	<0.050	<0.050	<0.050
Bromomethane	0.05	<0.050	<0.050	<0.050	<0.050
Carbon Tetrachloride	0.12	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	2.7	<0.050	<0.050	<0.050	<0.050
Chloroform	0.18	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	9.4	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	4.3	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	6	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	0.097	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	11	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	0.05	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	0.05	<0.050	<0.050	<0.050	<0.050
Cis-1,2-Dichloroethylene	30	<0.050	<0.050	<0.050	<0.050
Trans-1,2-Dichloroethylene	0.75	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	0.085	<0.050	<0.050	<0.050	<0.050
Cis-1,3-Dichloropropylene	NV	<0.030	<0.030	<0.030	<0.030
Trans-1,3-Dichloropropylene	NV	<0.040	<0.040	<0.040	<0.040
Ethylbenzene	15	<0.020	<0.020	<0.020	<0.020
Ethylene Dibromide	0.05	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	44	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	0.96	<0.050	<0.050	<0.050	<0.050
Methyl Isobutyl Ketone	4.3	<0.50	<0.50	<0.50	<0.50
Methyl-t-Butyl Ether	1.4	<0.050	<0.050	<0.050	<0.050
Styrene	2.2	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	0.05	<0.050	<0.050	<0.050	<0.050
Toluene	6	<0.020	<0.020	<0.020	<0.020
Tetrachloroethylene	2.3	<0.050	<0.050	<0.050	<0.050
1,1,1-Trichloroethane	3.4	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	0.05	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	0.52	<0.050	<0.050	<0.050	<0.050
Vinyl Chloride	0.022	<0.020	<0.020	<0.020	<0.020
m-Xylene & p-Xylene	NV	<0.020	<0.020	<0.020	<0.020
o-Xylene	NV	<0.020	<0.020	<0.020	<0.020
Total Xylenes	25	<0.020	<0.020	<0.020	<0.020
Dichlorodifluoromethane	25	<0.050	<0.050	<0.050	<0.050
Dioxane, 1,4-	1.8	-	-	-	-
Hexane(n)	34	<0.050	<0.050	<0.050	<0.050
Trichlorofluoromethane	5.8	<0.050	<0.050	<0.050	<0.050
1,3-Dichloropropene (cis + trans)	0.083	<0.050	<0.050	<0.050	<0.050

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 7 Soil Analytical Results - PAHs

Parameter		BH18-1 SS2	QAQC-1	BH18-2 SS2	BH18-3 SS2	BH18-4 SS2	BH18-5 SS2	QAQC-4
Date of Collection	Table 3 RPI MFT	Nov 01, 2018	Nov 01, 2018	Nov 05, 2018	Nov 06, 2018	Nov 08, 2018	Nov 09, 2018	Nov 09, 2018
Date Reported		Nov 12, 2018	Nov 12, 2018	Nov 14, 2018	Nov 14, 2018	Nov 19, 2018	Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		0.8 - 1.4		0.8 - 1.4	0.8 - 1.4	0.8 - 1.4	0.8 - 1.4	
Analytical Report Reference No.		IET107	IET110	IFR992	IFR996	IGK827	IGS371	IGS376
Acenaphthene	58	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0059
Acenaphthylene	0.17	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0058
Anthracene	0.74	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	0.02
Benzo(a)anthracene	0.63	<0.0050	<0.0050	<0.0050	<0.0050	0.011	0.035	0.063
Benzo(a)pyrene	0.3	<0.0050	<0.0050	<0.0050	<0.0050	0.0095	0.035	0.069
Benzo(b/j)fluoranthene	0.78	<0.0050	<0.0050	<0.0050	<0.0050	0.014	0.049	0.092
Benzo(ghi)perylene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	0.0071	0.025	0.055
Benzo(k)fluoranthene	0.78	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.016	0.032
Chrysene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	0.0097	0.033	0.064
Dibenzo(a,h)anthracene	0.1	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0053	0.01
Fluoranthene	0.69	0.0071	<0.0050	<0.0050	<0.0050	0.021	0.081	0.14
Fluorene	69	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.006	0.0064
Indeno(1,2,3-cd)pyrene	0.48	<0.0050	<0.0050	<0.0050	<0.0050	0.0077	0.026	0.053
1-Methylnaphthalene	3.4	<0.0050	<0.0050	<0.0050	<0.0050	0.0061	0.0091	0.015
2-Methylnaphthalene	3.4	<0.0050	<0.0050	<0.0050	<0.0050	0.01	0.0085	0.014
Naphthalene	0.75	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0057	0.0089
Phenanthrene	7.8	<0.0050	<0.0050	<0.0050	<0.0050	0.012	0.056	0.078
Pyrene	78	0.0058	<0.0050	<0.0050	<0.0050	0.02	0.066	0.12
Methylnaphthalene, 2-(1-)	3.4	<0.0071	<0.0071	<0.0071	<0.0071	0.016	0.018	0.029

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 7 Soil Analytical Results - PAHs

Parameter		BH18-6 SS2	BH18-7 SS2	BH18-8 SS2
Date of Collection	Table 3 RPI MFT	Nov 08, 2018	Nov 09, 2018	Nov 08, 2018
Date Reported		Nov 19, 2018	Nov 19, 2018	Nov 19, 2018
Sampling Depth (mbgs)		0.8 - 1.4	0.8 - 1.4	0.8 - 1.4
Analytical Report Reference No.		IGK830	IGS374	IGK833
Acenaphthene	58	<0.0050	<0.0050	<0.0050
Acenaphthylene	0.17	<0.0050	<0.0050	<0.0050
Anthracene	0.74	<0.0050	<0.0050	<0.0050
Benzo(a)anthracene	0.63	0.011	<0.0050	<0.0050
Benzo(a)pyrene	0.3	0.011	<0.0050	<0.0050
Benzo(b/j)fluoranthene	0.78	0.017	<0.0050	<0.0050
Benzo(ghi)perylene	7.8	0.0081	<0.0050	<0.0050
Benzo(k)fluoranthene	0.78	<0.0050	<0.0050	<0.0050
Chrysene	7.8	0.01	<0.0050	<0.0050
Dibenzo(a,h)anthracene	0.1	<0.0050	<0.0050	<0.0050
Fluoranthene	0.69	0.024	<0.0050	<0.0050
Fluorene	69	<0.0050	<0.0050	<0.0050
Indeno(1,2,3-cd)pyrene	0.48	0.0084	<0.0050	<0.0050
1-Methylnaphthalene	3.4	<0.0050	<0.0050	<0.0050
2-Methylnaphthalene	3.4	<0.0050	<0.0050	<0.0050
Naphthalene	0.75	<0.0050	<0.0050	<0.0050
Phenanthrene	7.8	0.012	<0.0050	<0.0050
Pyrene	78	0.02	<0.0050	<0.0050
Methylnaphthalene, 2-(1-)	3.4	<0.0071	<0.0071	<0.0071

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 8 Soil Analytical Results - TCLP

Parameter		COMP-1
Date of Collection	Schedule 4 Leachate Quality Criteria	Nov 01, 2018
Date Reported		Nov 12, 2018
Sampling Depth (mbgs)		-
Analytical Report Reference No.		ICY695
Inorganics		
Leachable Fluoride (F-)	150	0.29
Leachable WAD Cyanide (Free)	20	<0.010
Leachable Nitrite (N)	-	<0.10
Leachable Nitrate (N)	-	<1.0
Leachable Nitrate + Nitrite (N)	1000	<1.0
Metals		
Leachable Mercury (Hg)	0.1	<0.0010
Leachable Arsenic (As)	2.5	<0.2
Leachable Barium (Ba)	100	0.4
Leachable Boron (B)	500	0.3
Leachable Cadmium (Cd)	0.5	<0.05
Leachable Chromium (Cr)	5	<0.1
Leachable Lead (Pb)	5	<0.1
Leachable Selenium (Se)	1	<0.1
Leachable Silver (Ag)	5	<0.01
Leachable Uranium (U)	10	<0.01
PCBs		
Leachable Total PCB	300	<0.0071
Volatile Organics		
Leachable Benzene	0.5	<0.020
Leachable Carbon Tetrachloride	0.5	<0.020
Leachable Chlorobenzene	8	<0.020
Leachable Chloroform	10	<0.020
Leachable 1,2-Dichlorobenzene	20	<0.050
Leachable 1,4-Dichlorobenzene	0.5	<0.050
Leachable 1,2-Dichloroethane	0.5	<0.050
Leachable 1,1-Dichloroethylene	1.4	<0.020
Leachable Methylene Chloride	5	<0.20
Leachable Methyl Ethyl Ketone	200	<1.0
Leachable Tetrachloroethylene	3	<0.020
Leachable Trichloroethylene	5	<0.020
Leachable Vinyl Chloride	0.2	<0.020

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 9 Soil Analytical Results - PCBs

Parameter		TP18-1 S1A
Date of Collection	Table 3 RPI MFT	Nov 02, 2018
Date Reported		Nov 12, 2018
Sampling Depth (m bgs)		0 - 0.3
Analytical Report Reference No.		IET111
Polychlorinated Biphenyls	0.35	<0.010

See "Notes for Soil and Groundwater Summary Tables" included at the begining of this Section

Table 10 Groundwater Analytical Results - Metals&ORPs

Parameter		BH18-1S	BH18-2S	BH18-4	BH18-5	BH18-7
Date of Collection	Table 3 Non-potable GroundwaterMFT	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 27, 2018
Date Reported		Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Dec 04, 2018
Screened Depth (mbgs)		1.5-4.6	1.5-4.6	1.5-4.3	1.5-4.6	1.5-4.6
Analytical Report Reference No.		B8V1705	B8V1705	B8V1705	B8V1705	B8V1705
Antimony	20000	0.93	<0.50	<0.50	<0.50	3.5
Arsenic	1900	2.1	1	4.6	<1.0	8.6
Barium	29000	95	150	350	75	76
Beryllium	67	<0.50	<0.50	<0.50	<0.50	<0.50
Boron	45000	170	120	160	430	1200
Cadmium	2.7	<0.10	<0.10	<0.10	<0.10	<0.10
Chromium	810	<5.0	<5.0	33	<5.0	<5.0
Chromium VI	140	<0.50	<0.50	<0.50	<0.50	<0.50
Cobalt	66	2.5	2.5	54	<0.50	2
Copper	87	<1.0	2.7	15	<1.0	<1.0
Lead	25	<0.50	0.57	5.5	<0.50	<0.50
Mercury	2.8	<0.1	<0.1	<0.1	<0.1	<0.1
Molybdenum	9200	3.6	1.1	4.9	3.2	29
Nickel	490	3.3	3.9	11	<1.0	3.3
Sodium	2300000	310000	570000	230000	830000	190000
Selenium	63	<2.0	<2.0	<2.0	<2.0	2
Silver	1.5	<0.10	<0.10	<0.10	<0.10	<0.10
Thallium	510	<0.050	<0.050	<0.050	<0.050	0.12
Vanadium	250	0.83	1.4	12	<0.50	1.5
Zinc	1100	<5.0	<5.0	21	<5.0	<5.0
Cyanide, Free	66	<1	<1	<1	<1	<1
Nitrate	NV	-	-	-	-	-
Nitrite	NV	-	-	-	-	-
Chloride (mg/L)	2300000	1000	1500	660	1500	240
Uranium	420	2.5	1.9	1.8	0.43	9.5

Table 11 Groundwater Analytical Results - PHCs&BTEX

Parameter		BH18-1S	QAQC 18-2	BH18-2S	BH18-4	BH18-4	BH18-4	BH18-5
Date of Collection	Table 3 Non-potable GroundwaterMFT	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Dec 06, 2018	Dec 12, 2018	Nov 21, 2018
Date Reported		Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Dec 13, 2018	Dec 19, 2018	Nov 30, 2018
Screened Depth (mbgs)		1.5-4.6		1.5-4.6	1.5-4.3	1.5-4.3	1.5-4.3	1.5-4.6
Analytical Report Reference No.		B8V1705	B8V1705	B8V1705	B8V1705	B8W6343	B8X3170	B8V1705
Benzene	430	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20
Toluene	18000	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylbenzene	2300	<0.20	-	<0.20	<0.20	<0.20	<0.20	<0.20
Xylene Mixture	4200	<0.20	-	<0.20	<0.20	<0.40	<0.20	<0.20
F1 (C6 to C10) minus BTEX	750	<25	-	<25	<25	<25	<25	<25
F2 (C10 to C16)	150	<100	<100	<100	**170**	<110	<100	<100
F3 (C16 to C34)	500	<200	<200	<200	<220	<220	<200	<200
F4 (C34 to C50)	500	<200	<200	<200	<220	<220	<200	<200

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 11 Groundwater Analytical Results - PHCs&BTE

Parameter		BH18-7	TRIP BLANK	TRIP BLANK
Date of Collection	Table 3 Non-potable GroundwaterMFT	Nov 21, 2018	Dec 06, 2018	Dec 06, 2018
Date Reported		Nov 30, 2018	Dec 13, 2018	Dec 13, 2018
Screened Depth (mbgs)		1.5-4.6	-	-
Analytical Report Reference No.		IIY742	B8W6343	B8X3170
Benzene	430	1.1	<0.20	<0.20
Toluene	18000	0.35	<0.20	<0.20
Ethylbenzene	2300	<0.20	<0.20	<0.20
Xylene Mixture	4200	<0.20	<0.40	<0.40
F1 (C6 to C10) minus BTEX	750	<25	<25	<25
F2 (C10 to C16)	150	<100	<100	<100
F3 (C16 to C34)	500	<200	<200	<200
F4 (C34 to C50)	500	<200	<200	<200

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 12 Groundwater Analytical Results - VOCs

Parameter		BH18-1S	BH18-2S	BH18-4	BH18-5	QAQC18-1	BH18-7
Date of Collection	Table 3 Non-potable GroundwaterMFT	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018	Nov 21, 2018
Date Reported		Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Nov 30, 2018	Nov 30, 2018
Screened Depth (mbgs)		1.5-4.6	1.5-4.6	1.5-4.3	1.5-4.6		1.5-4.6
Analytical Report Reference No.		B8V1705	B8V1705	B8V1705	B8V1705	B8V1705	B8V1705
Acetone	130000	<10	<10	<10	<10	<10	<10
Benzene	430	<0.20	<0.20	<0.20	<0.20	<0.20	1.1
Bromodichloromethane	85000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform	770	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	56	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride	8.4	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	630	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	22	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	82000	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	9600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	9600	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	67	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane	3100	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	12	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,2-Dichloroethylene	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trans-1,2-Dichloroethylene	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane	140	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cis-1,3-Dichloropropylene	NV	<0.30	<0.30	<0.30	<0.30	<0.30	<0.30
Trans-1,3-Dichloropropylene	NV	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Ethylbenzene	2300	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Ethylene Dibromide	0.83	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Methyl Ethyl Ketone	1500000	<10	<10	<10	<10	<10	<10
Methylene Chloride	5500	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Methyl Isobutyl Ketone	580000	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl-t-Butyl Ether	1400	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene	9100	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	28	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	15	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	18000	<0.20	<0.20	<0.20	<0.20	<0.20	0.35
Tetrachloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	6700	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	30	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	17	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	1.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
m-Xylene & p-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
o-Xylene	NV	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total Xylenes	4200	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Dichlorodifluoromethane	4400	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dioxane, 1,4-	7300000	-	-	-	-	-	-
Hexane(n)	520	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane	2500	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis + trans)	45	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 12 Groundwater Analytical Results - VOCs

Parameter		TRIP BLANK
Date of Collection	Table 3 Non-potable GroundwaterMFT	Nov 21, 2018
Date Reported		Nov 30, 2018
Screened Depth (mbgs)		-
Analytical Report Reference No.		B8V1705
Acetone	130000	<10
Benzene	430	<0.20
Bromodichloromethane	85000	<0.50
Bromoform	770	<1.0
Bromomethane	56	<0.50
Carbon Tetrachloride	8.4	<0.20
Chlorobenzene	630	<0.20
Chloroform	22	<0.20
Dibromochloromethane	82000	<0.50
1,2-Dichlorobenzene	9600	<0.50
1,3-Dichlorobenzene	9600	<0.50
1,4-Dichlorobenzene	67	<0.50
1,1-Dichloroethane	3100	<0.20
1,2-Dichloroethane	12	<0.50
1,1-Dichloroethylene	17	<0.20
Cis-1,2-Dichloroethylene	17	<0.50
Trans-1,2-Dichloroethylene	17	<0.50
1,2-Dichloropropane	140	<0.20
Cis-1,3-Dichloropropylene	NV	<0.30
Trans-1,3-Dichloropropylene	NV	<0.40
Ethylbenzene	2300	<0.20
Ethylene Dibromide	0.83	<0.20
Methyl Ethyl Ketone	1500000	<10
Methylene Chloride	5500	<2.0
Methyl Isobutyl Ketone	580000	<5.0
Methyl-t-Butyl Ether	1400	<0.50
Styrene	9100	<0.50
1,1,1,2-Tetrachloroethane	28	<0.50
1,1,2,2-Tetrachloroethane	15	<0.50
Toluene	18000	<0.20
Tetrachloroethylene	17	<0.20
1,1,1-Trichloroethane	6700	<0.20
1,1,2-Trichloroethane	30	<0.50
Trichloroethylene	17	<0.20
Vinyl Chloride	1.7	<0.20
m-Xylene & p-Xylene	NV	<0.20
o-Xylene	NV	<0.20
Total Xylenes	4200	<0.20
Dichlorodifluoromethane	4400	<1.0
Dioxane, 1,4-	7300000	-
Hexane(n)	520	<1.0
Trichlorofluoromethane	2500	<0.50
1,3-Dichloropropene (cis + trans)	45	<0.50

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 13 Summary of Maximum Concentrations in Soil

Group	Parameter	Table 3 RPI MFT	Maximum Concentration	Location
Metals & ORPs	Antimony	7.5	0.86	BH18-4 SS1
	Arsenic	18	5.1	BH18-5 SS1
	Barium	390	140	BH18-2 SS2
	Beryllium	5	1.2	BH18-2 SS2
	Boron (Hot Water Soluble)	1.5	0.45	BH18-4 SS1
	Cadmium	1.2	0.25	BH18-4 SS1
	Chromium	160	35	BH18-2 SS2
	Chromium VI	10	0.3	BH18-8 SS1
	Cobalt	22	16	BH18-2 SS2
	Copper	180	31	BH18-2 SS2
	Lead	120	35	BH18-4 SS1
	Mercury	1.8	0.058	BH18-4 SS1
	Molybdenum	6.9	<0.50	all samples
	Nickel	130	36	BH18-2 SS2
	Selenium	2.4	<0.50	all samples
	Silver	25	<0.20	all samples
	Thallium	1	0.2	BH18-2 SS2
	Vanadium	86	47	BH18-2 SS2
	Zinc	340	79	BH18-2 SS2
	pH (pH Units)	5 to 9	7.76	BH18-2 SS2
	Conductivity (ms/cm)	0.7	2.9	BH18-2 SS2
	Sodium Adsorption Ratio	5	24	BH18-2 SS2
	Sodium Adsorption Ratio	5	0.01	BH18-2 SS2
	Cyanide, Free	0.051	-	BH18-2 SS2
PHCs	Benzene	0.17	<0.02	all samples
	Toluene	6	<0.05	all samples
	Ethylbenzene	15	<0.020	all samples
	Total Xylenes	25	<0.020	all samples
	F1 (C6 to C10) minus BTEX	65	<10	all samples
	F2 (C10 to C16)	150	56	BH18-4 SS3
	F3 (C16 to C34)	1300	83	BH18-4 SS3
	F4 (C34 to C50)	5600	<50	all samples
VOCs	Acetone	28	<0.50	all samples
	Benzene	0.17	<0.020	all samples
	Bromodichloromethane	13	<0.050	all samples
	Bromoform	0.26	<0.050	all samples
	Bromomethane	0.05	<0.050	all samples
	Carbon Tetrachloride	0.12	<0.050	all samples
	Chlorobenzene	2.7	<0.050	all samples
	Chloroform	0.18	<0.050	all samples
	Dibromochloromethane	9.4	<0.050	all samples
	1,2-Dichlorobenzene	4.3	<0.050	all samples
	1,3-Dichlorobenzene	6	<0.050	all samples
	1,4-Dichlorobenzene	0.097	<0.050	all samples
	1,1-Dichloroethane	11	<0.050	all samples

Table 13 Summary of Maximum Concentrations in Soil

Group	Parameter	Table 3 RPI MFT	Maximum Concentration	Location
VOCs	1,2-Dichloroethane	0.05	<0.050	all samples
	1,1-Dichloroethylene	0.05	<0.050	all samples
	Cis-1,2-Dichloroethylene	30	<0.050	all samples
	Trans-1,2-Dichloroethylene	0.75	<0.050	all samples
	1,2-Dichloropropane	0.085	<0.050	all samples
	Cis-1,3-Dichloropropylene	NV	<0.030	all samples
	Trans-1,3-Dichloropropylene	NV	<0.040	all samples
	Ethylbenzene	15	<0.020	all samples
	Ethylene Dibromide	0.05	<0.050	all samples
	Methyl Ethyl Ketone	44	<0.50	all samples
	Methylene Chloride	0.96	<0.050	all samples
	Methyl Isobutyl Ketone	4.3	<0.50	all samples
	Methyl-t-Butyl Ether	1.4	<0.050	all samples
	Styrene	2.2	<0.050	all samples
	1,1,1,2-Tetrachloroethane	0.05	<0.050	all samples
	1,1,2,2-Tetrachloroethane	0.05	<0.050	all samples
	Toluene	6	<0.020	all samples
	Tetrachloroethylene	2.3	<0.050	all samples
	1,1,1-Trichloroethane	3.4	<0.050	all samples
	Total Xylenes	25	<0.020	all samples
	Dichlorodifluoromethane	25	<0.050	all samples
	Dioxane, 1,4-	1.8	-	all samples
	Hexane(n)	34	<0.050	all samples
	Trichlorofluoromethane	5.8	<0.050	all samples
	1,3-Dichloropropene (cis + trans)	0.083	<0.050	all samples
PAHs	Acenaphthene	58	0.0059	QAQC-4
	Acenaphthylene	0.17	0.0058	QAQC-4
	Anthracene	0.74	0.02	QAQC-4
	Benzo(a)anthracene	0.63	0.063	QAQC-4
	Benzo(a)pyrene	0.3	0.069	QAQC-4
	Benzo(b/j)fluoranthene	0.78	0.092	QAQC-4
	Benzo(ghi)perylene	7.8	0.055	QAQC-4
	Benzo(k)fluoranthene	0.78	0.032	QAQC-4
	Chrysene	7.8	0.064	QAQC-4
	Dibenzo(a,h)anthracene	0.1	0.01	QAQC-4
	Fluoranthene	0.69	0.14	QAQC-4
	Fluorene	69	0.0064	QAQC-4
	Indeno(1,2,3-cd)pyrene	0.48	0.053	QAQC-4
	1-Methylnaphthalene	3.4	0.015	QAQC-4
	2-Methylnaphthalene	3.4	0.014	QAQC-4
	Pyrene	78	0.12	QAQC-4
	Methylnaphthalene, 2-(1-)	3.4	0.029	QAQC-4
PCBs	Polychlorinated Biphenyls	0.35	<0.010	all samples

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

Table 14 Summary of Maximum Concentrations in Groundwater

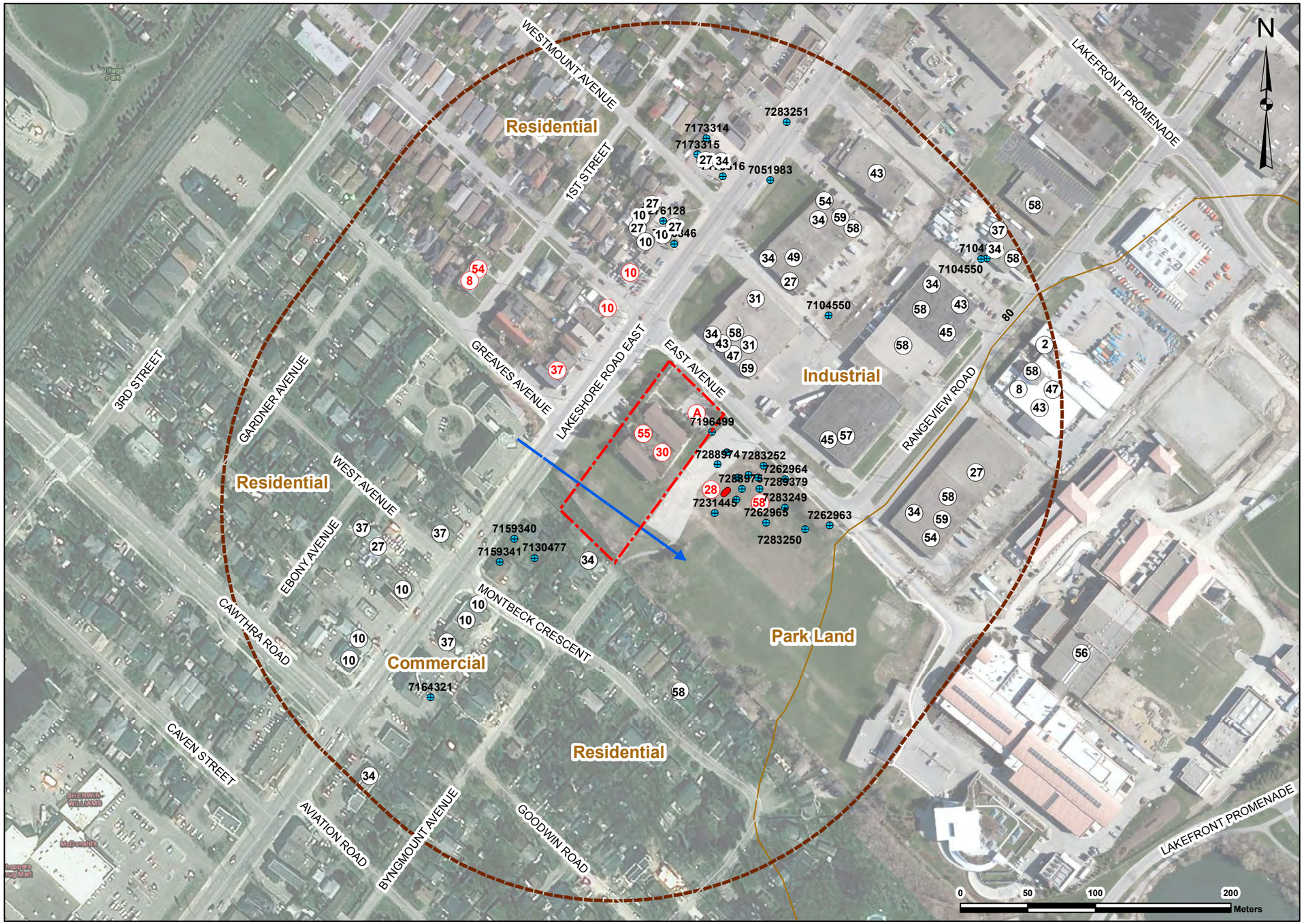
Group	Parameter	Table 3 Non-potable GroundwaterMFT	Maximum Concentration	Location
Metals & ORPs	Antimony	20000	3.5	BH18-7
	Arsenic	1900	8.6	BH18-7
	Barium	29000	350	BH18-4
	Beryllium	67	<0.50	all samples
	Boron	45000	1200	BH18-7
	Cadmium	2.7	<0.10	all samples
	Chromium	810	33	BH18-4
	Chromium VI	140	<0.50	all samples
	Cobalt	66	54	BH18-4
	Copper	87	15	BH18-4
	Lead	25	5.5	BH18-4
	Mercury	2.8	<0.1	all samples
	Molybdenum	9200	29	BH18-7
	Nickel	490	11	BH18-4
	Sodium	2300000	830000	BH18-5
	Selenium	63	2	BH18-7
	Silver	1.5	<0.10	all samples
	Thallium	510	0.12	BH18-7
	Vanadium	250	12	BH18-4
	Zinc	1100	21	BH18-4
	Cyanide, Free	66	<1	all samples
	Nitrate	NV	-	all samples
	Uranium	420	9.5	BH18-7
PHCs	Benzene	430	1.1	BH18-7
	Toluene	18000	<0.20	BH18-7
	Ethylbenzene	2300	<0.20	all samples
	Xylene Mixture	4200	<0.20	all samples
	F1 (C6 to C10) minus BTEX	750	<25	all samples
	F2 (C10 to C16)	150	170	BH18-4
	F3 (C16 to C34)	500	<200	all samples
	F4 (C34 to C50)	500	<200	all samples
	Acetone	130000	<10	all samples
	Benzene	430	1.1	BH18-7
	Bromodichloromethane	85000	<0.50	all samples
	Bromoform	770	<1.0	all samples
	Bromomethane	56	<0.50	all samples
	Carbon Tetrachloride	8.4	<0.20	all samples
	Chlorobenzene	630	<0.20	all samples
	Chloroform	22	<0.20	all samples
	Dibromochloromethane	82000	<0.50	all samples
	1,2-Dichlorobenzene	9600	<0.50	all samples
	1,3-Dichlorobenzene	9600	<0.50	all samples
	1,4-Dichlorobenzene	67	<0.50	all samples
	1,1-Dichloroethane	3100	<0.20	all samples

Table 14 Summary of Maximum Concentrations in Groundwater

Group	Parameter	Table 3 Non-potable GroundwaterMFT	Maximum Concentration	Location
VOCs	1,2-Dichloroethane	12	<0.50	all samples
	1,1-Dichloroethylene	17	<0.20	all samples
	Cis-1,2-Dichloroethylene	17	<0.50	all samples
	Trans-1,2-Dichloroethylene	17	<0.50	all samples
	1,2-Dichloropropane	140	<0.20	all samples
	Cis-1,3-Dichloropropylene	NV	<0.30	all samples
	Trans-1,3-Dichloropropylene	NV	<0.40	all samples
	Ethylbenzene	2300	<0.20	all samples
	Ethylene Dibromide	0.83	<0.20	all samples
	Methyl Ethyl Ketone	1500000	<10	all samples
	Methylene Chloride	5500	<2.0	all samples
	Methyl Isobutyl Ketone	580000	<5.0	all samples
	Methyl-t-Butyl Ether	1400	<0.50	all samples
	Styrene	9100	<0.50	all samples
	1,1,1,2-Tetrachloroethane	28	<0.50	all samples
	1,1,2,2-Tetrachloroethane	15	<0.50	all samples
	Toluene	18000	0.35	all samples
	Tetrachloroethylene	17	<0.20	all samples
	1,1,1-Trichloroethane	6700	<0.20	all samples
	1,1,2-Trichloroethane	30	<0.50	all samples
	Trichloroethylene	17	<0.20	all samples
	Vinyl Chloride	1.7	<0.20	all samples
	m-Xylene & p-Xylene	NV	<0.20	all samples
	o-Xylene	NV	<0.20	all samples
	Total Xylenes	4200	<0.20	all samples
	Dichlorodifluoromethane	4400	<1.0	all samples
	Dioxane, 1,4-	7300000	-	BH18-7
	Hexane(n)	520	<1.0	all samples
	Trichlorofluoromethane	2500	<0.50	all samples
	1,3-Dichloropropene (cis + trans	45	<0.50	all samples

See "Notes for Soil and Groundwater Summary Tables" included at the beginning of this Section

FIGURES



KEY PLAN
N.T.S.

POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

- (2) PCA 2 - Adhesives and Resins Manufacturing, Processing and Bulk Storage
- (8) PCA 8 - Chemical Manufacturing, Processing and Bulk Storage
- (10) PCA10 - Commercial Autobody Shops
- (27) PCA27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles
- (28) PCA28 - Gasoline and Associated Products Storage in Fixed Tanks
- (30) PCA30 - Importation of Fill Material of Unknown Quality
- (31) PCA31 - Ink Manufacturing, Processing and Bulk Storage
- (34) PCA34 - Metal Fabrication
- (37) PCA37 - Operation of Dry Cleaning Equipment (where chemicals are used)
- (43) PCA43 - Plastics (including Fibreglass) Manufacturing and Processing
- (45) PCA45 - Pulp, Paper and Paperboard Manufacturing and Processing
- (47) PCA47 - Rubber Manufacturing and Processing
- (49) PCA49 - Salvage Yard, including automobile wrecking
- (54) PCA54 - Textile Manufacturing and Processing
- (55) PCA55 - Transformer Manufacturing, Processing and Use
- (56) PCA56 - Treatment of Sewage equal to or greater than 10,000 litres per day
- (57) PCA57 - Vehicles and Associated Parts Manufacturing
- (58) PCA58 - Waste Disposal and Waste Management
- (59) PCA59 - Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products
- (A) PCA N/S - Application of De-icing Compounds

Legend:

- 250m Study
- Phase One Property
- MOECC Water Well
- Topographic Contours Line
- Inferred Groundwater Flow Direction
- UST
- (#) PCA Contributing to APEC
- (#) PCA Not Contributing to APEC

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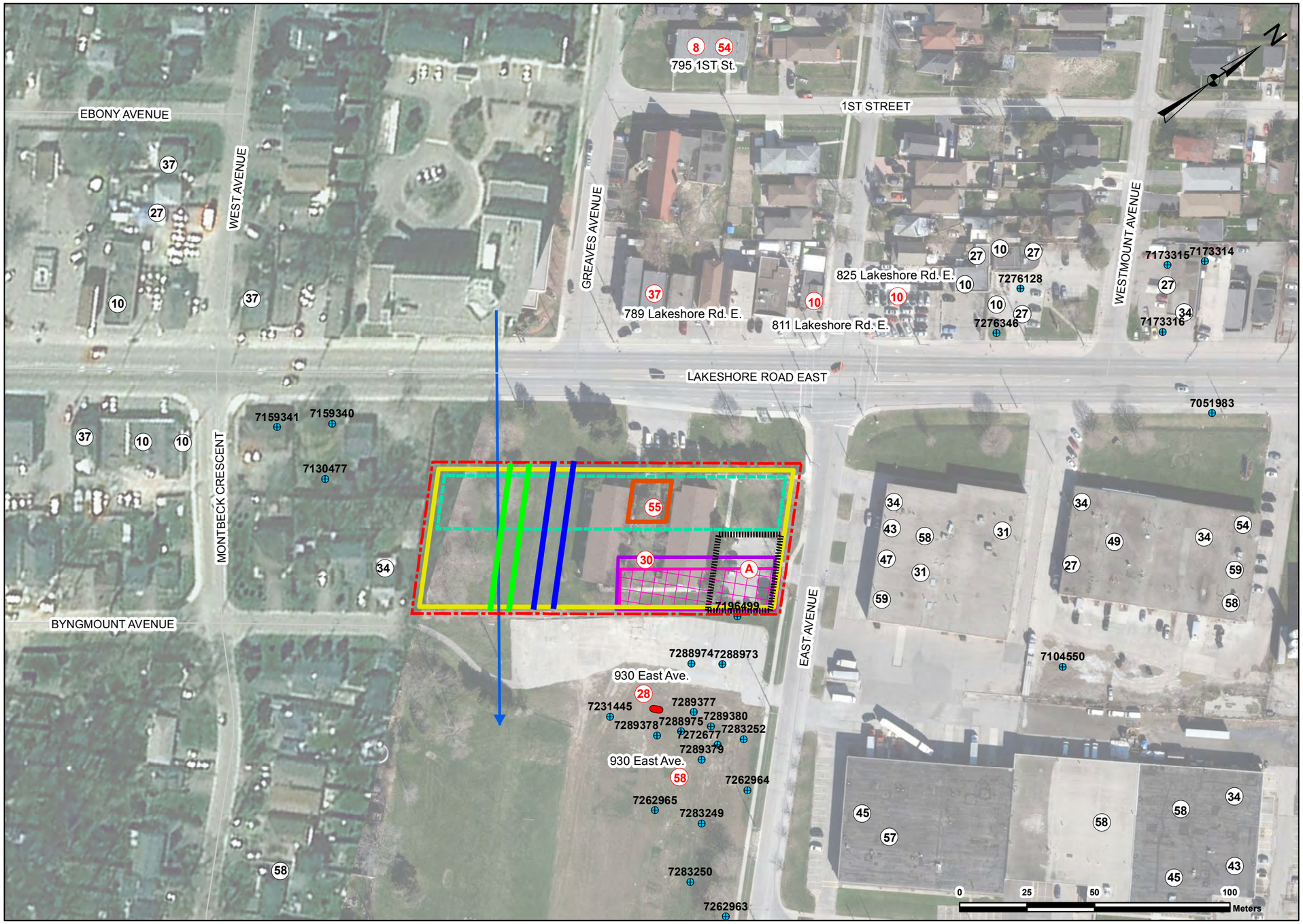
Client:	THE REGION OF PEEL			Project No.: 181-11306-00	Figure No.: 1
Drawn: LWS		Aproved: MB		Discipline: ENVIRONMENTAL	
Date: October 2018		Scale: 1:3000		Title: Phase One Conceptual Site Model	
Orginal Size: Tabloid		Rev: N/A		Project: Phase One Environmental Site Assessment 958 – 960 East Avenue, Mississauga, Ontario	



POTENTIALLY CONTAMINATING ACTIVITIES (PCAs)

(10) PCA10 - Commercial Autobody Shops

(27) PCA27 - Garages and Maintenance and Repair of Railcars, Marine Vehicles and Aviation Vehicles

(28) PCA28 - Gasoline and Associated Products Storage in Fixed Tanks

(31) PCA31 - Ink Manufacturing, Processing and Bulk Storage

(34) PCA34 - Metal Fabrication

(37) PCA37 - Operation of Dry Cleaning Equipment (where chemicals are used)

(43) PCA43 - Plastics (including Fibreglass) Manufacturing and Processing

(45) PCA45 - Pulp, Paper and Paperboard Manufacturing and Processing

(47) PCA47 - Rubber Manufacturing and Processing

(49) PCA49 - Salvage Yard, including automobile wrecking

(54) PCA54 - Textile Manufacturing and Processing

(57) PCA57 - Vehicles and Associated Parts Manufacturing

(58) PCA58 - Waste Disposal and Waste Management

(59) PCA59 - Wood Treating and Preservative Facility and Bulk Storage of Treated and Preserved Wood Products

(A) PCA N/S - Application of De-icing Compounds

(#) PCA Contributing to APEC

(#) PCA Not Contributing to APEC

Legend:

- Phase One Property
- MOECC Water Well
- Inferred Groundwater Flow Direction
- UST
- APEC 1
- APEC 2
- APEC3
- APEC 4
- APEC 5
- APEC 6
- Watermain
- Sanitary forcemain

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Client: THE REGION OF PEEL		Project No.: 181-11306-00	Figure No.: 2
Drawn: LWS	Aproved: MB	Discipline: ENVIRONMENTAL	
Date: October 2018	Scale: 1:1500	Title: Areas of Potental Environmental Concern	
Orginal Size: Tabloid	Rev: N/A	Project: Phase One Environmental Site Assessment 958 – 960 East Avenue, Mississauga, Ontario	

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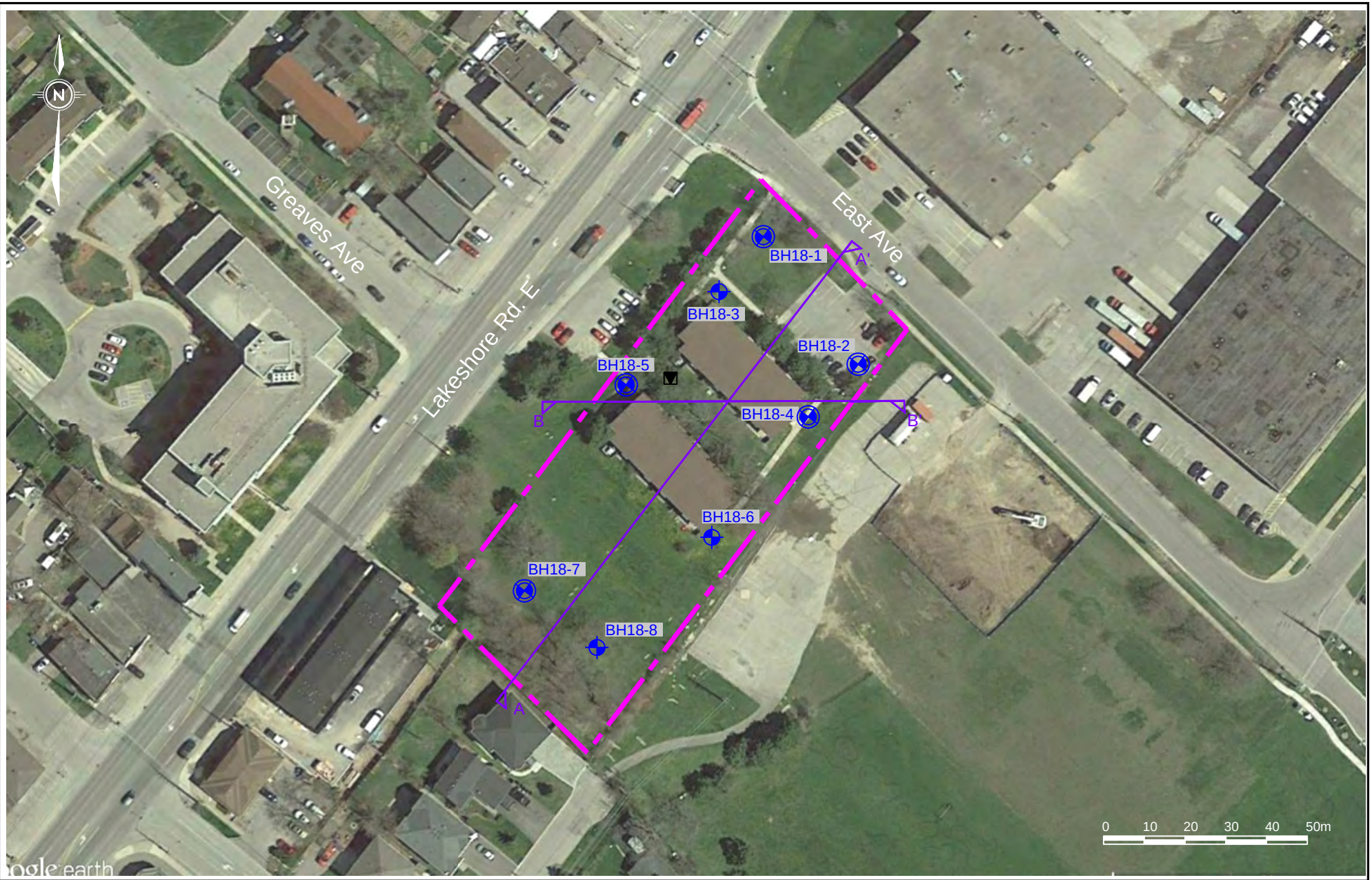

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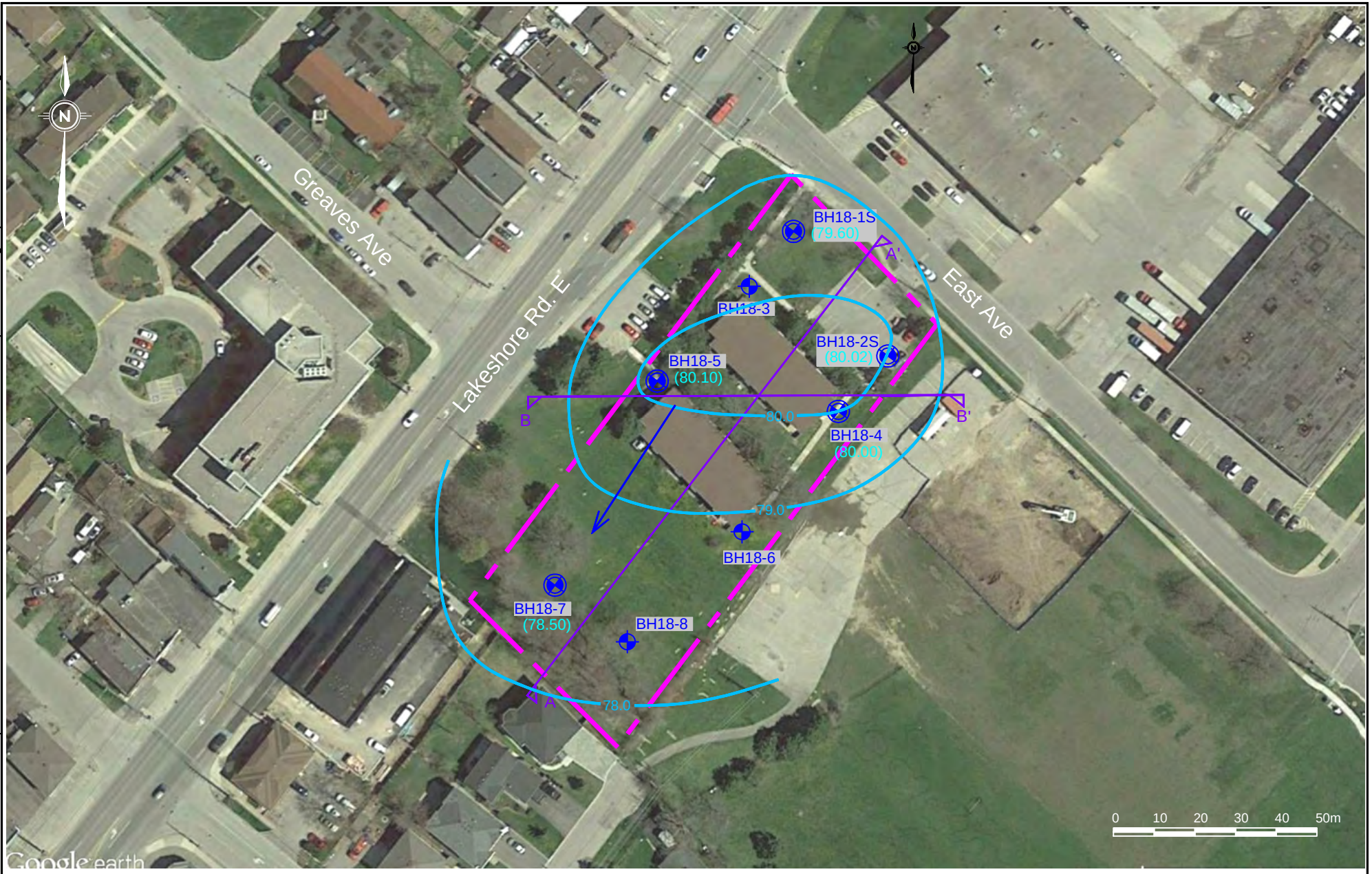
LEGEND:

- Site boundary
- Borehole
- Monitoring Well
- Transformer

CLIENT: REGION OF PEEL		PROJECT NO: 181-11306-00	DRAWING NO: 3
TITLE: BOREHOLE/ MONITORING WELL LOCATION PLAN		DRAWN BY: OB	CHECKED BY: MW
PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 958-960 EAST AVENUE, MISSISSAUGA, ON		DATE: DEC. 2018	SCALE: AS SHOWN
		ORIGINAL SIZE: LETTER	REV. # N/A



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LEGEND:

- Site boundary
- Borehole
- Monitoring Well
- Inferred Groundwater Flow Direction
- (78.50) Groundwater Level, masl (Dec.12, 2018)
- 79.0 1m Deep Groundwater Contour Line

CLIENT: REGION OF PEEL		PROJECT NO: 181-11306-00	DRAWING NO: 4
TITLE: GROUNDWATER CONTOURS		DRAWN BY: OB	CHECKED BY: MW
PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 958-960 EAST AVENUE, MISSISSAUGA, ON		DATE: DEC. 2018	SCALE: AS SHOWN
		ORIGINAL SIZE: LETTER	REV. # N/A

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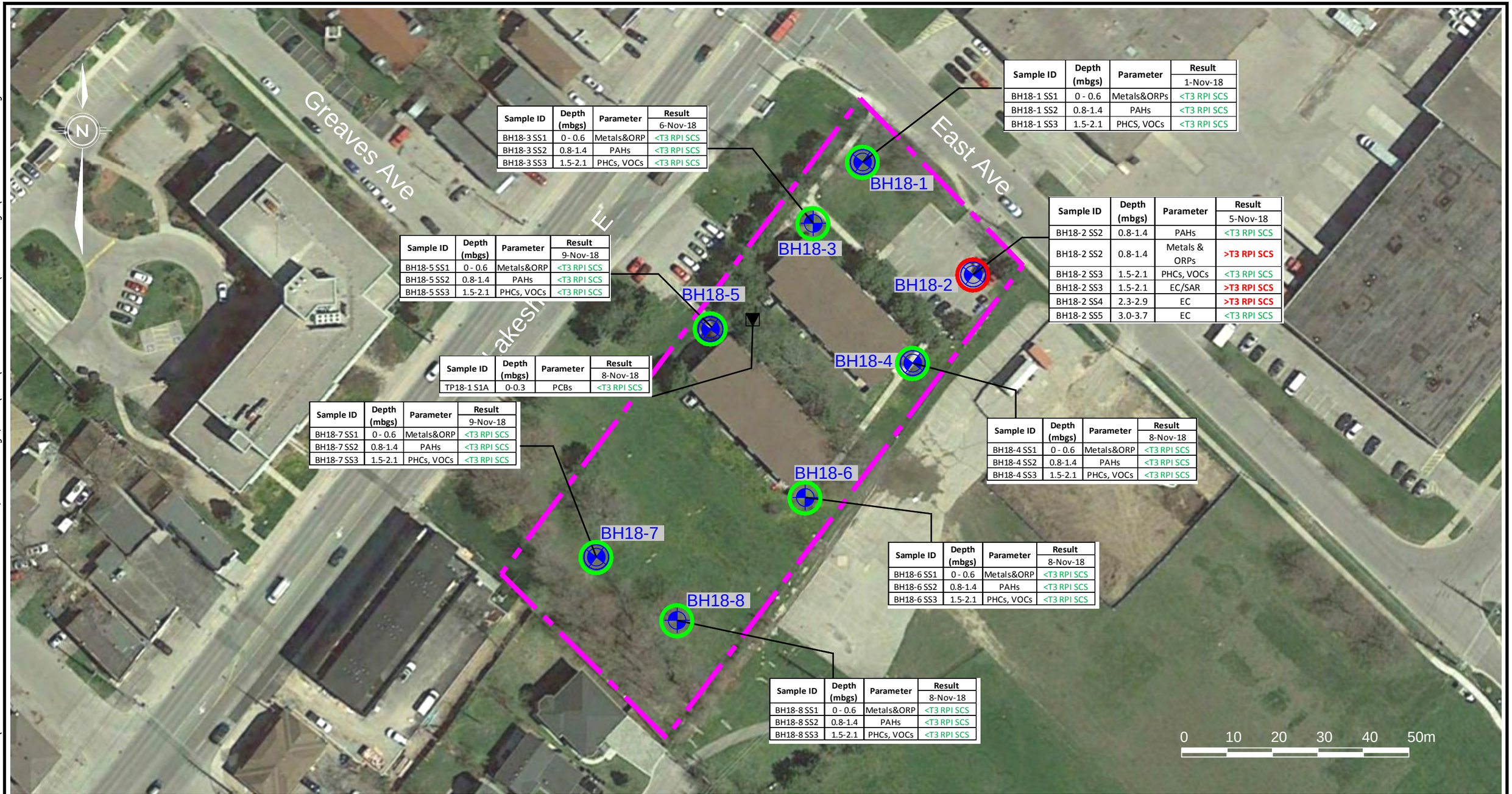

Sample ID	Depth (mbgs)	Parameter	Result
			1-Nov-18
BH18-1 SS1	0 - 0.6	Metals&ORPs	<T3 RPI SCS
BH18-1 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-1 SS3	1.5-2.1	PHCS, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			6-Nov-18
BH18-3 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-3 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-3 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			5-Nov-18
BH18-2 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-2 SS2	0.8-1.4	Metals & ORPs	>T3 RPI SCS
BH18-2 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS
BH18-2 SS3	1.5-2.1	EC/SAR	>T3 RPI SCS
BH18-2 SS4	2.3-2.9	EC	>T3 RPI SCS
BH18-2 SS5	3.0-3.7	EC	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			9-Nov-18
BH18-5 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-5 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-5 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			8-Nov-18
TP18-1 S1A	0-0.3	PCBs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			9-Nov-18
BH18-7 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-7 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-7 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			8-Nov-18
BH18-4 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-4 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-4 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			8-Nov-18
BH18-6 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-6 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-6 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

Sample ID	Depth (mbgs)	Parameter	Result
			8-Nov-18
BH18-8 SS1	0 - 0.6	Metals&ORP	<T3 RPI SCS
BH18-8 SS2	0.8-1.4	PAHs	<T3 RPI SCS
BH18-8 SS3	1.5-2.1	PHCs, VOCs	<T3 RPI SCS

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LEGEND:

- Site boundary
- Borehole
- Monitoring Well
- Transformer
- Soil sample meets the MECP Table 3 RPI SCS
- Soil sample exceeds the MECP Table 3 RPI SCS

CLIENT: REGION OF PEEL

CLIENT REF. #:

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
958-960 EAST AVENUE, MISSISSAUGA, ON

PROJECT NO: 181-11306-00

DATE: December 2018

DESIGNED BY: SL

DRAWN BY: OB

CHECKED BY: MW

FIGURE NO: 5

SCALE: as shown

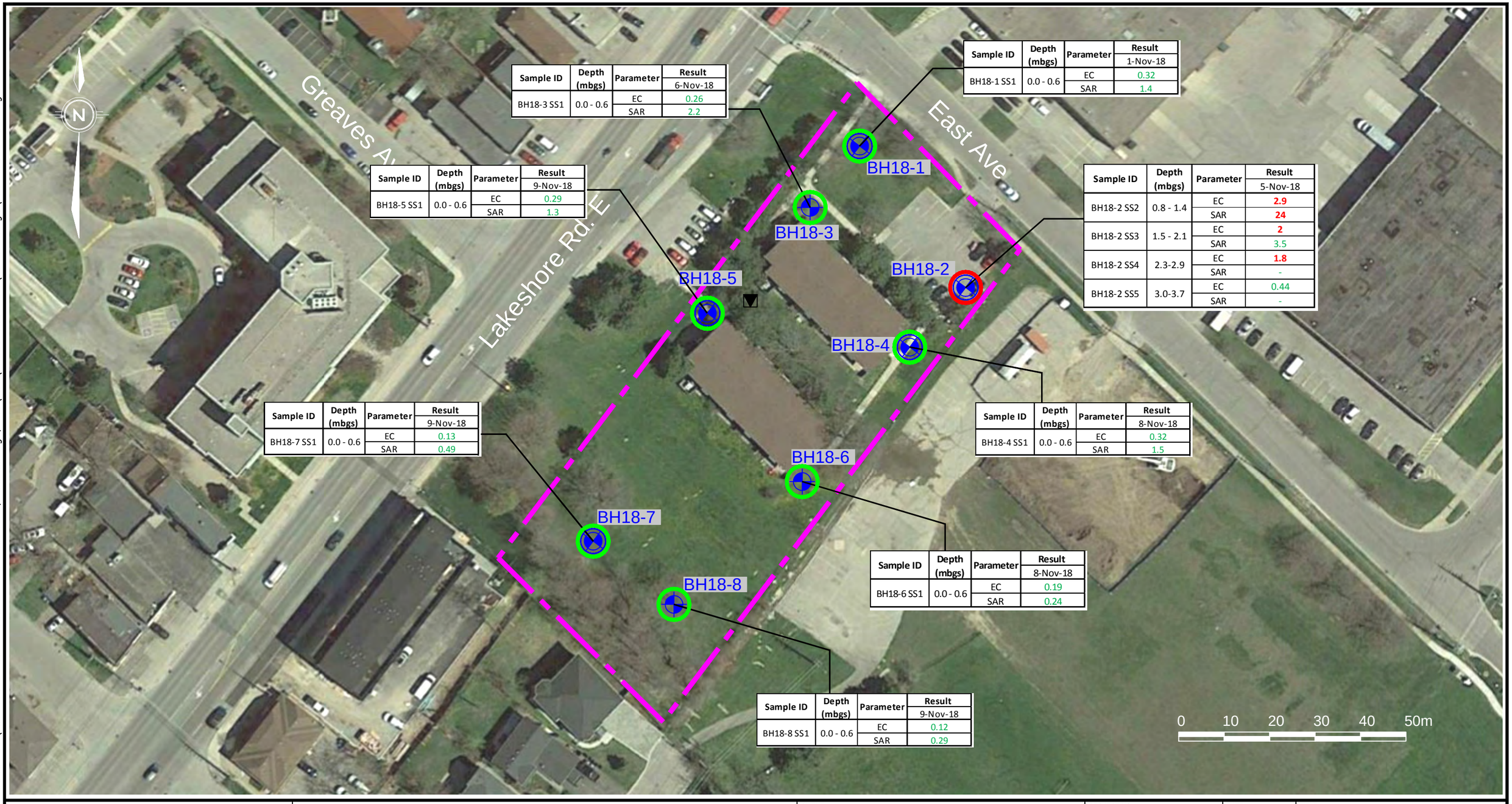
TITLE: SUMMARY OF CHEMICAL ANALYSIS IN SOIL

DISCIPLINE: ENVIRONMENT

ISSUE:

RV. #: 0

DATE OF:



Sample ID	Depth (mbgs)	Parameter	Result 6-Nov-18
BH18-3 SS1	0.0 - 0.6	EC	0.26
		SAR	2.2

Sample ID	Depth (mbgs)	Parameter	Result 1-Nov-18
BH18-1 SS1	0.0 - 0.6	EC	0.32
		SAR	1.4

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-5 SS1	0.0 - 0.6	EC	0.29
		SAR	1.3

Sample ID	Depth (mbgs)	Parameter	Result 5-Nov-18
BH18-2 SS2	0.8 - 1.4	EC	**2.9**
		SAR	**24**
BH18-2 SS3	1.5 - 2.1	EC	**2**
		SAR	3.5
BH18-2 SS4	2.3-2.9	EC	**1.8**
		SAR	-
BH18-2 SS5	3.0-3.7	EC	0.44
		SAR	-

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-7 SS1	0.0 - 0.6	EC	0.13
		SAR	0.49

Sample ID	Depth (mbgs)	Parameter	Result 8-Nov-18
BH18-4 SS1	0.0 - 0.6	EC	0.32
		SAR	1.5

Sample ID	Depth (mbgs)	Parameter	Result 8-Nov-18
BH18-6 SS1	0.0 - 0.6	EC	0.19
		SAR	0.24

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-8 SS1	0.0 - 0.6	EC	0.12
		SAR	0.29

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TORONTO, ONTARIO CANADA M9W 1K4
TEL.: 416-798-0065 | FAX: 416-798-0518 | WWW.WSP.COM

LEGEND:

- Site boundary
- Borehole
- Monitoring Well
- Soil sample meets the MECP Table 3 RPI SCS
- Soil sample exceeds the MECP Table 3 RPI SCS

Parameter	MECP Table 3 RPI SCS
Electrical Conductivity (EC)	0.7
Sodium Adsorption Ratio (SAR)	5

CLIENT: REGION OF PEEL

CLIENT REF. #:

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
958-960 EAST AVENUE, MISSISSAUGA, ON

PROJECT NO: 181-11306-00

DATE: December 2018

DESIGNED BY: SL

DRAWN BY: OB

CHECKED BY: MW

FIGURE NO: 6

SCALE: as shown

TITLE: CHEMICAL EXCEEDANCES IN SOIL ORPs

DISCIPLINE: ENVIRONMENT

ISSUE:

RV. #: 0

DATE OF:

T:\Environmental\000 181-00000-00\181-11306-00 - 958 & 960 East Ave., Mississauga, ON\Env\Phase Two ESA\03 Drawings\181-11306-00.dwg

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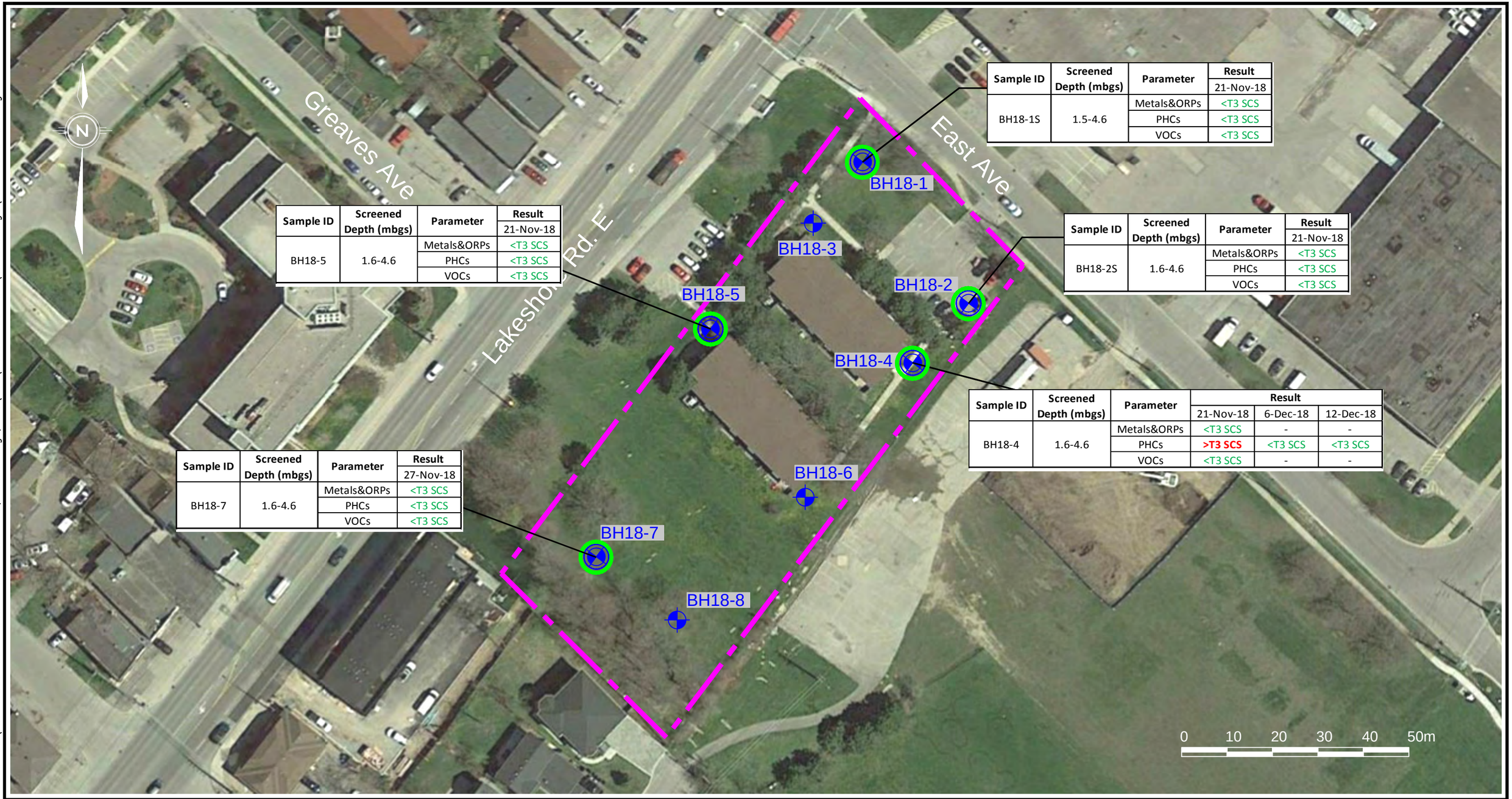

Sample ID	Screened Depth (mbgs)	Parameter	Result
			21-Nov-18
BH18-1S	1.5-4.6	Metals&ORPs	<T3 SCS
		PHCs	<T3 SCS
		VOCs	<T3 SCS

Sample ID	Screened Depth (mbgs)	Parameter	Result
			21-Nov-18
BH18-2S	1.6-4.6	Metals&ORPs	<T3 SCS
		PHCs	<T3 SCS
		VOCs	<T3 SCS

Sample ID	Screened Depth (mbgs)	Parameter	Result		
			21-Nov-18	6-Dec-18	12-Dec-18
BH18-4	1.6-4.6	Metals&ORPs	<T3 SCS	-	-
		PHCs	**>T3 SCS**	<T3 SCS	<T3 SCS
		VOCs	<T3 SCS	-	-

Sample ID	Screened Depth (mbgs)	Parameter	Result
			21-Nov-18
BH18-5	1.6-4.6	Metals&ORPs	<T3 SCS
		PHCs	<T3 SCS
		VOCs	<T3 SCS

Sample ID	Screened Depth (mbgs)	Parameter	Result
			27-Nov-18
BH18-7	1.6-4.6	Metals&ORPs	<T3 SCS
		PHCs	<T3 SCS
		VOCs	<T3 SCS

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TEL.: 416-798-0065 | FAX: 416-798-0518 | WWW.WSP.COM

LEGEND:

- Site boundary
- Borehole
- Monitoring Well
- Soil sample meets the MECP Table 3 RPI SCS
- Soil sample exceeds the MECP Table 3 RPI SCS

CLIENT: REGION OF PEEL

CLIENT REF. #:

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
958-960 EAST AVENUE, MISSISSAUGA, ON

PROJECT NO: 181-11306-00

DATE: December 2018

DESIGNED BY: SL

DRAWN BY: OB

CHECKED BY: MW

FIGURE NO: 7

SCALE: as shown

TITLE: SUMMARY OF CHEMICAL ANALYSIS IN GROUNDWATER

DISCIPLINE: ENVIRONMENT

ISSUE:

DATE OF:

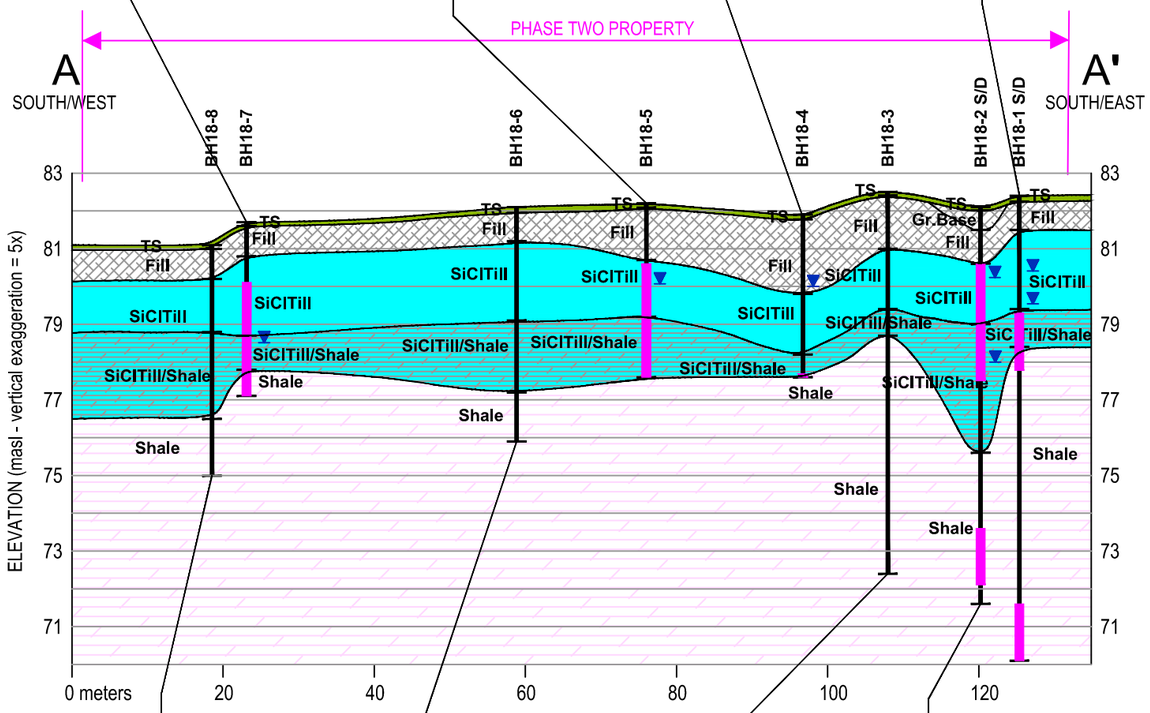
RV. #: 0

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-7 SS1	0.0 - 0.6	EC	0.13
		SAR	0.49

Sample ID	Depth (mbgs)	Parameter	Result 8-Nov-18
BH18-4 SS1	0.0 - 0.6	EC	0.32
		SAR	1.5

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-5 SS1	0.0 - 0.6	EC	0.29
		SAR	1.3

Sample ID	Depth (mbgs)	Parameter	Result 1-Nov-18
BH18-1 SS1	0.0 - 0.6	EC	0.32
		SAR	1.4



Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-8 SS1	0.0 - 0.6	EC	0.12
		SAR	0.29

Sample ID	Depth (mbgs)	Parameter	Result 8-Nov-18
BH18-6 SS1	0.0 - 0.6	EC	0.19
		SAR	0.24

Sample ID	Depth (mbgs)	Parameter	Result 6-Nov-18
BH18-3 SS1	0.0 - 0.6	EC	0.26
		SAR	2.2

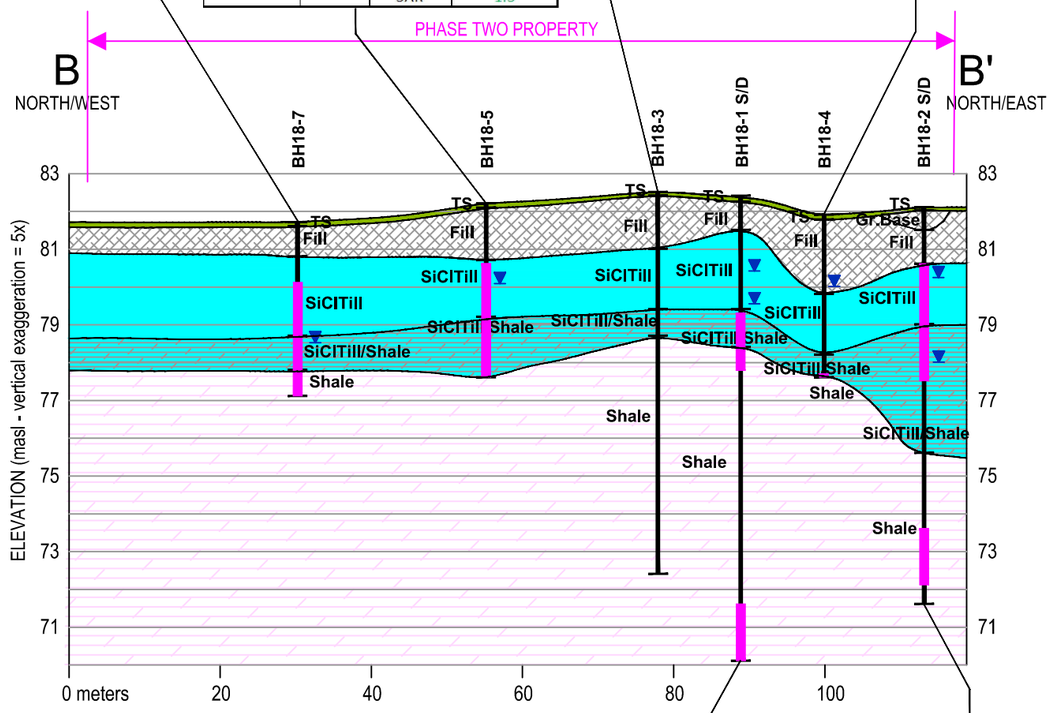
Sample ID	Depth (mbgs)	Parameter	Result 5-Nov-18
BH18-2 SS2	0.8 - 1.4	EC	2.9
		SAR	24
BH18-2 SS3	1.5 - 2.1	EC	2
		SAR	3.5
BH18-2 SS4	2.3-2.9	EC	1.8
		SAR	-
BH18-2 SS5	3.0-3.7	EC	0.44
		SAR	-

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-7 SS1	0.0 - 0.6	EC	0.13
		SAR	0.49

Sample ID	Depth (mbgs)	Parameter	Result 6-Nov-18
BH18-3 SS1	0.0 - 0.6	EC	0.26
		SAR	2.2

Sample ID	Depth (mbgs)	Parameter	Result 9-Nov-18
BH18-5 SS1	0.0 - 0.6	EC	0.29
		SAR	1.3

Sample ID	Depth (mbgs)	Parameter	Result 8-Nov-18
BH18-4 SS1	0.0 - 0.6	EC	0.32
		SAR	1.5



Sample ID	Depth (mbgs)	Parameter	Result 1-Nov-18
BH18-1 SS1	0.0 - 0.6	EC	0.32
		SAR	1.4

Sample ID	Depth (mbgs)	Parameter	Result 5-Nov-18
BH18-2 SS2	0.8 - 1.4	EC	2.9
		SAR	24
BH18-2 SS3	1.5 - 2.1	EC	2
		SAR	3.5
BH18-2 SS4	2.3-2.9	EC	1.8
		SAR	-
BH18-2 SS5	3.0-3.7	EC	0.44
		SAR	-

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LEGEND:

BH18-1 — Well No

Well

Water Level (Taken Dec.12, 2018)

- Top Soil
- Fill
- Silty Clay Till
- Silty Clay Till/ Shale
- Gravelly Silt/ Gravelly Clayey Silt

Parameter	MECP Table 3 RPI SCS
Electrical Conductivity (EC)	0.7
Sodium Adsorption Ratio (SAR)	5

CLIENT: REGION OF PEEL

CLIENT REF. #:

PROJECT: PHASE TWO ENVIRONMENTAL SITE ASSESSMENT
958-960 EAST AVENUE, MISSISSAUGA, ON

PROJECT NO: 181-11306-00

DATE: December 2018

DESIGNED BY: SL

DRAWN BY: OB

CHECKED BY: MW

FIGURE NO: 8

SCALE: as shown

TITLE: CROSS SECTIONS A-A' AND B-B'
WITH CHEMICAL EXCEEDANCES IN SOIL
- ORPs

DISCIPLINE: ENVIRONMENT

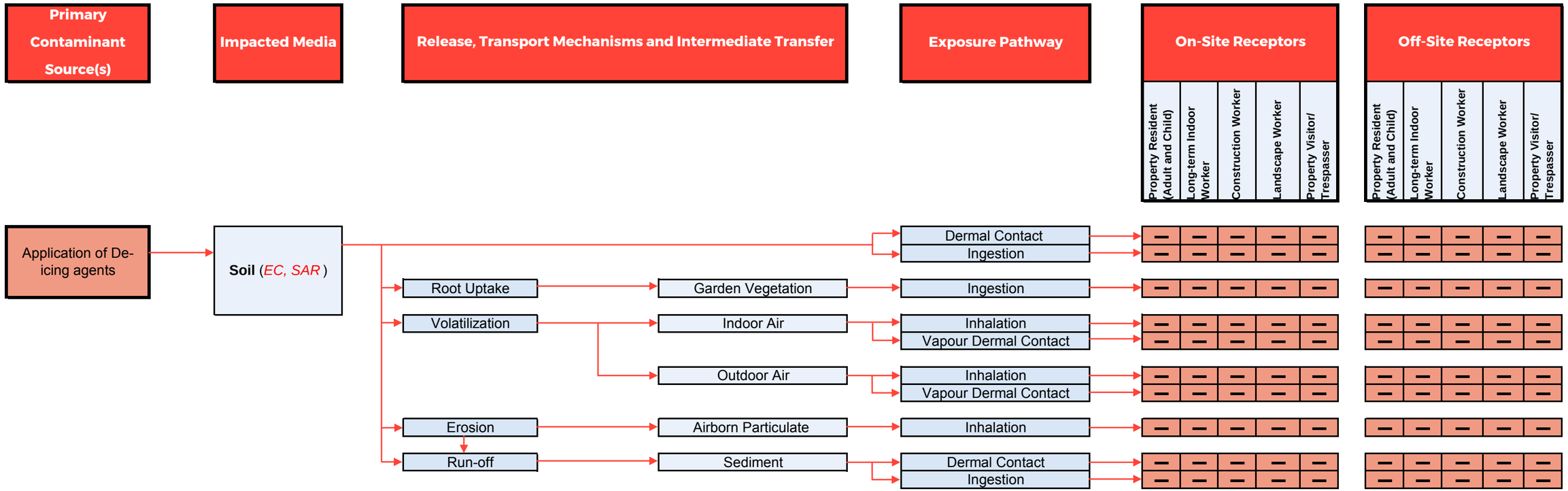
ISSUE:

RV. #: 0

DATE OF:

T:\Environmental\000 181-00000-00\181-11306-00 - 958 & 960 East Ave., Mississauga, ON\Env\Phase Two ESA\03 Drawings\181-11306-00.dwg

CONTAMINANT TRANSPORT DIAGRAM - HUMAN HEALTH EXPOSURE

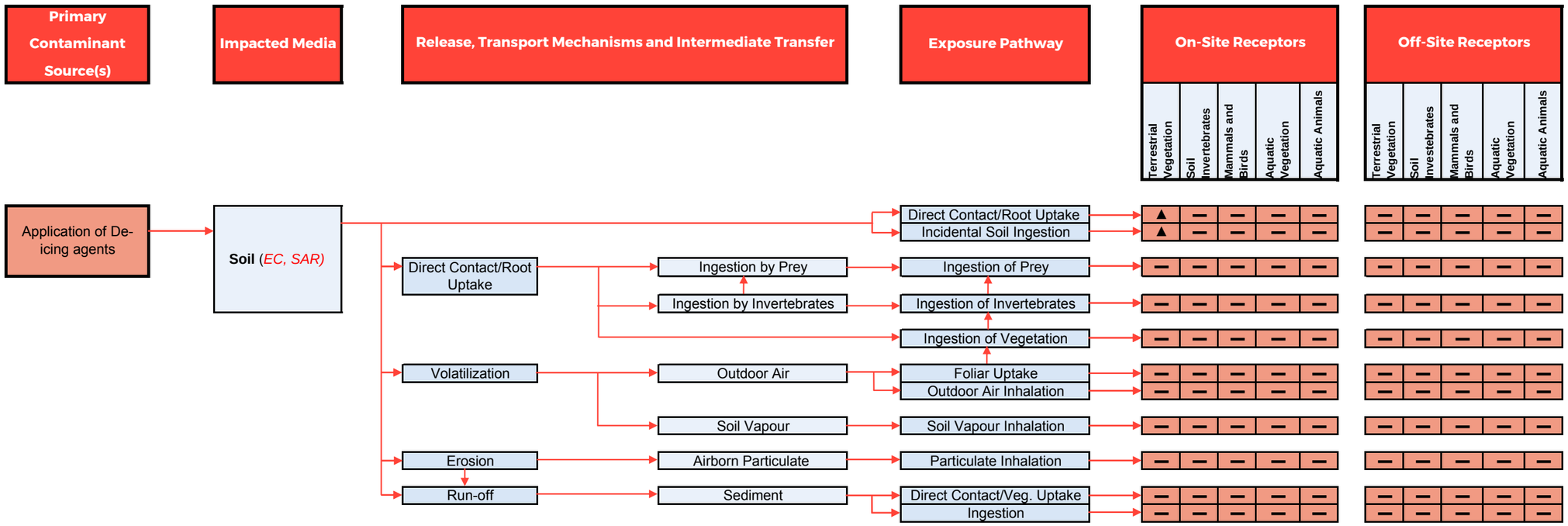


LEGEND:

[—] - NO Receptor considered to be present and/or Pathway Incomplete
[▲] - Receptor is considered to be present and Pathway Complete
X - Exposure Pathway considered blocked (*indicate* Risk Management *and/or* Remediation) *(To be Shown after completion of Remediation/Risk Assessment)*

Project No.: *181-11306-00*		**Figure No.:** *9*
Project: *958-960 East Avenue, Mississauga, ON*		
Date: *December 2018*	**Drawn:** *MW*	**Approved:** *MB*

CONTAMINANT TRANSPORT DIAGRAM - ECOLOGICAL EXPOSURE



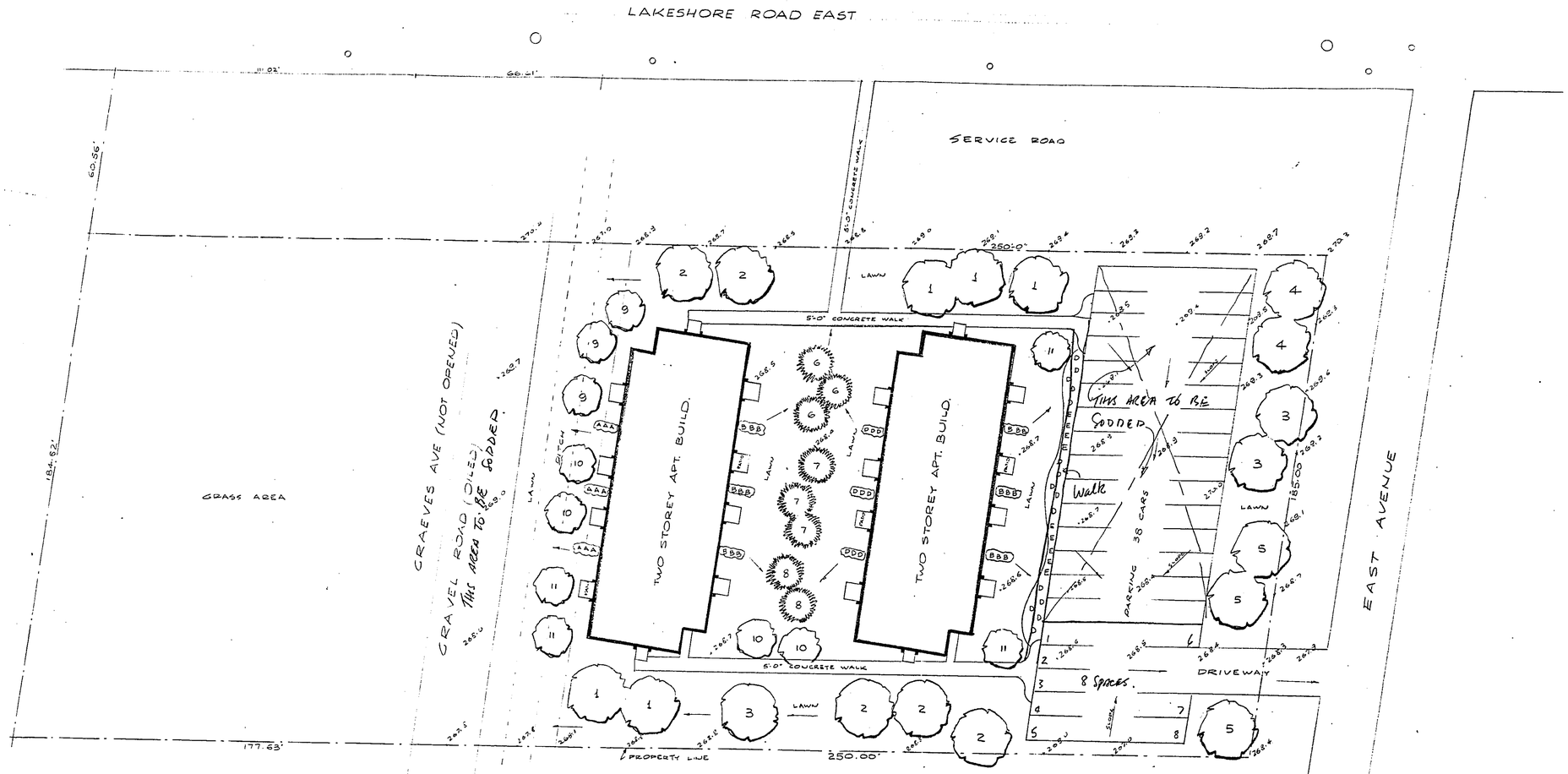
LEGEND:

[▬] - NO Receptor considered to be present and/or Pathway Incomplete
[▲] - Receptor is considered to be present and Pathway Complete
X - Exposure Pathway considered blocked (*indicate* Risk Management *and/or* Remediation) *(To be Shown after completion of Remediation/Risk Assessment)*

Project No.: ***181-11306-00***	**Figure No.:** ***10***	
Project: ***958-960 East Avenue, Mississauga, ON***		
Date: ***December 2018***	**Drawn:** ***MW***	**Approved:** ***MB***

APPENDIX

A LEGAL SURVEY



SITE PLAN SCALE 1"=20'
LOTS 9 AND 10 CONCESSION 3 S.D.S.
TOWNSHIP OF TORONTO

LIST OF PLANTING MATERIAL

NO. ON DWG.	BOTANICAL NAME	SIZE WHEN PLANTED	QUNT. REQ'D.
	LARGE TREES		
1	TILIA CORDATA	8' - 10'	5
2	SORBUS AUCUPARIA	8' - 10'	5
3	GLEDITSIA TRIACAUTHOS SCHADEMASTER	10' - 12'	3
4	ACER SACCHARUM	10' - 12'	3
5	ACER RUBRUM SACCHARINUM	10' - 12'	3
	LARGE EVERGREEN TREES		
6	PICEA GLAUCA	4' - 5'	9
7	PINUS STROBUS	4' - 5'	9
8	ABIES CONCOLOR	4' - 5'	9
	FLOWERING FORMAL TREES		
9	CRATAEGUS OXYACANTHA PAUL'S SCARLET	6' STEM	3
10	MALUS ALMEY	6' STEM	4
11	PRUNUS PISSARDI	6' STEM	4
	FLOWERING SHRUBS		
A	FORSYTHIA OVATA	4' - 5'	9
B	LONICERA TATARICA ROSEA	4' - 5'	18
C	SYRINGA VULGARIS	4' - 5'	15
D	KOLKWITZIA AMABILIS	2' - 3'	9
E	PHILADELPUS CORONARIUS DEUTZIAEFLORUS	4' - 5'	9

PLANTING SPECIFICATIONS
ALL TREES SHALL BE BALLED AND BURLAPED AS WELL AS STAKED OR GUY WIRED WITH PROPER STAKES OR WIRE IN ACCORDANCE WITH GOOD LOCAL PRACTICE.

ALL PLANTING MATERIAL SHALL COUFIRM TO THE STANDARDS OF THE CAUADIAN ASSOCIATION OF NURSERYMEN. DRIED OUT PLANTS SHALL NOT BE USED.

PITS FOR TREE PLANTING SHALL BE AT LEAST 24" DEEP AND HAVE A DIAMETER OF AT LEAST 6" BEYOND THE ROOT SPREAD.

PITS FOR SHRUB PLANTING BEDS SHALL BE REFILLED WITH SANDY LOAM AND 4 OZ. OF BONE MEAL AND 4 OZ. OF ACTIVATED SLUGE SHALL BE THOROUGHLY MIXED WITH EACH BUSHEL OF SANDY LOAM.

EACH PLANT SHALL BE THOROUGHLY WATERED WHEN THE HOLE IS TWO THIRDS FILLED WITH SOIL. AFTER FINAL BACKFILLING AND WATERING THE SOIL SHALL BE LEFT AT LEAST 1" LOWER THAN THE SURROUNDING GROUND LEVEL FORMING A SHALLOW DEPRESSION TO COLLECT RAINWATER.

PRUNING OF PLANTING MATERIAL SHALL BE DONE IN ACCORDANCE WITH GOOD LOCAL PRACTICE.

SODDING AND SEEDING SPECIFICATIONS
ALL AREAS MARKED LAWN SHALL BE SODDED WITH GOOD QUALITY NURSERY SOD LAID OVER 4" OF TOP SOIL. SODS SHALL BE LAID EVENLY TO PROPER GRADE, WATERED AND ROLLED.

ALL AREAS MARKED GRASS SHALL BE SEEDED WITH PERMANENT LAWN GRASS SPECIES AT THE RATE OF 4 TO 5 LBS. OF SEED PER 1000 SQ FEET.

GRADING SPECIFICATIONS
THE SITE SHALL BE GRADED SO AS TO DIRECT SURFACE WATER AWAY FROM BUILDINGS. THE FINISHED GRADE SURFACE SHALL SLOPE AWAY FROM THE FOUNDATIONS NOT LESS THAN 3" IN 10'-0" NOR MORE THAN 7" IN 10'-0" FOR A MINIMUM DISTANCE OF 10'-0"

PATIOS
ALL PATIOS SHALL BE 24"x24" PRECAST CONCRETE SLABS LAID OVER 4" SAND BED.

NORTH

AMERICAN INSTITUTE OF LANDSCAPE ARCHITECTS
ALEXANDER BUDREVICS
MEMBER
260

GENERAL NOTES
ALL INFORMATION HEREON TO BE CHECKED AND VERIFIED ON THE JOB AND ANY DISCREPANCIES TO BE REPORTED TO THE LANDSCAPE ARCHITECT BEFORE COMMENCING WORK.

ALL DRAWINGS, SPECIFICATIONS DETAILS, ETC. PREPARED BY THE LANDSCAPE ARCHITECT ARE INSTRUMENTS OF SERVICE AND AS SUCH ARE HIS PROPERTY AND MUST BE RETURNED AT HIS REQUEST.

M3925-L01
L01 A

PROPOSED LANDSCAPING FOR SENIOR CITIZENS O.H.C. PROJECT
TORONTO TOWNSHIP ONTARIO.
LA SCALA CONSTRUCTION LTD.

ALEXANDER BUDREVICS A.I.L.A.
LANDSCAPE ARCHITECT
123 OVERLAND DRIVE, DON MILLS, ONT.

DATE	JOB No.	SHEET No.
15 NOV 66	66-177	1
DRAWN BY	CHECKED BY	
SCALE: AS SHOWN		OF 1 SHEETS

APPENDIX

B SAMPLING AND ANALYSIS PLAN

SAMPLING AND ANALYSIS PLAN

WSP was retained by the Region of Peel to conduct a Phase Two ESA for the land municipally identified as 958-960 East Avenue, Mississauga, Ontario (the Site).The purpose of the proposed Phase Two ESA program is to assess the current subsurface environmental conditions to support redevelopment of the property and filing a RSC.

The Phase Two ESA will involve intrusive investigation in the areas determined in the Site visit to be APECs, and will be completed in general accordance with O.Reg 153/04. Based on the findings of the field and laboratory analyses, a Phase Two ESA report will be prepared.

The Site Investigation Program will be completed as follows:

Public and private underground utilities and services will be cleared prior to commencement of intrusive investigation activities

A Health and Safety Plan will be prepared and all work will be executed safely

Eight (8) boreholes will be advanced on the Phase Two Property, to an approximate maximum depth of 12.8 mbgs using a track-mounted drill rig. The soil profile from each borehole will be logged in the field and samples will be screened for TOV with a PID. The location of the boreholes will be selected to investigate any APECs identified during the Site visit, as well as to delineate the horizontal and vertical extents of relevant parameters of concern.

Based on field screening and visual/olfactory observations, worst-case/representative soil samples from the boreholes will be submitted for laboratory testing of relevant parameters of concern.

Five (5) groundwater monitoring wells will be installed within the boreholes to assess groundwater quality below the Site and determine the direction of groundwater flow;

The groundwater levels in the wells will be measured at least 24 hours after well development has been completed, to determine the groundwater table elevation. The wells will be surveyed to a geodetic benchmark to determine groundwater flow direction.

The groundwater wells will be purged to remove stagnant water and sampled for laboratory testing of relevant parameters of concern.

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

The proposed analytical program is outlined below (proposed program subject to change as a result of site observations/findings). All soil and groundwater sampling will be carried out in accordance with WSP's Standard Operating Procedures (SOPs).

<u>Soils:</u>

Eight (8) soil samples for Metals and ORPs

Eight (8) soil samples for PAHs

Eight (8) soil samples for VOCs

Eight (8) soil samples for PHCs

One (1) soil sample for PCBs

Four (4) soil sample for QA/QC purposes (duplicates)

Groundwater:

Five (5) groundwater samples for Metals and ORPs

Five (5) groundwater samples for VOCs

Five (5) groundwater samples for PHCs

Two (2) groundwater samples for QA/QC purposes (one duplicate and one trip blank)

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

It is noted that if the Phase Two ESA reveals parameter concentrations greater than the applicable standards set out in *Ontario Regulation 153/04,* then additional work (i.e., supplemental delineation, additional drilling, sampling, analysis, and/or site remediation activities) will be deemed necessary prior to RSC filing, should an RSC be required. The costs for any additional work, if necessary, are beyond the current scope of work.

Finalized Sampling & Analysis Plan

The finalized SAP was created based on the request to complete a Phase Two ESA for due diligence purposes. The SAP was compiled to collect data to provide information on soil and/or groundwater quality in each APEC.

Figure 3 outlines the borehole/monitoring well investigation locations. Table 4-1 provides the proposed and implemented SAP, which includes the specific requirements for sampling and analysis for the areas to be investigated.

Additional delineation may be required following the implementation of this SAP to meet the requirements of O.Reg. 153/04 which requires delineation of all areas where concentrations are above the applicable SCS such as in the following conditions:

Unexpected contamination not previously discovered, or not related to identified APECs, will need to be further delineated to identify source(s); and

Requirement for a minimum of three monitoring wells per stratigraphic unit would have to extend to underlying units if there is evidence of contamination extending into it; the SAP assumes contamination is limited to the upper stratigraphic unit (confirmed with clean sample) then the underlying units do not necessarily have to be characterized. The SAP has been developed using the available data, and may require additional delineation if sampling results come out suggesting impacts are deeper than initially expected.

APPENDIX

C BOREHOLE LOGS

LOG OF BOREHOLE BH18-1 (Deep)

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825338.2 E 616012.4

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/01/2018 to Nov/02/2018

REF. NO.: 181-11306-00
ENCL NO.: 1

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS "N" 0.3 m	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.4	Ground Surface				
82.0	**TOPSOIL:** 150mm				
0.2	**FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, wood fragment, brown to dark brown, moist, stiff.	1	SS	14	
81.5					
0.9	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard	2	SS	26	
		3	SS	50/ 75mm	augure grinding
					spoon/hammer bouncing
		4	SS	100/ 180mm	augure grinding
79.4					
3.0	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard	5	SS	50/ 100mm	spoon/hammer bouncing
					augure grinding
78.4		6	SS	50/ 0mm	spoon/hammer bouncing
4.0	**SHALE:** grey weathered shale interbedded with siltstone /limestone.	1	CORE		
		2	CORE		
		3	CORE		
		4	CORE		

Rising Up Casing (0.89 m)
Sand
W. L. 80.3 m
Nov 14, 2018
Holeplug

Head Space Combustible Vapor Reading (ppm)

WATER CONTENT (%)
PLASTIC LIMIT w_P — NATURAL MOISTURE CONTENT w — LIQUID LIMIT w_L

Continued Next Page

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-1 (Deep)

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825338.2 E 616012.4

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/01/2018 to Nov/02/2018

REF. NO.: 181-11306-00
ENCL NO.: 1

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	TYPE	BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT (w_P w w_L) WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued							2 4 6 8 10	10 20 30			
11	**SHALE:** grey weathered shale interbedded with siltstone /limestone.(Continued)		5	CORE			Sand					
			6	CORE			71 Screen					
12 70.1												
12.3	**END OF BOREHOLE** Notes: 1) Borehole was open and dry upon completion. 2) 50mm dia. monitoring well was installed upon completion. Water Level Readings: Date W.L.Depth (m) Nov. 14, 2018 2.08											

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-1 (Shallow)

PROJECT: 958-960 East Avenue

CLIENT: Region of Peel

PROJECT LOCATION: 958-96 Lake Avenue, Mississauga

DATUM: Geodetic

BH LOCATION: N 4825340.2 E 616014.4

Method: Hollow Stem Augers

Diameter: 216mm

Date: Nov/01/2018 to Nov/02/2018

REF. NO.: 181-11306-00

ENCL NO.: 1a

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT; WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.4	Ground Surface							2 4 6 8 10	10 20 30			
82.0 0.0	Direct Drilling to Depth of 4.6 m Without Sampling. Lithology inferred from BH18-1 (Deep)						Rising Up Casing (0.89 m)					
0.2							Sand					
							82					
81.5												
1 0.9												augure grinding
												augure grinding
							81					
							Holeplug					augure grinding
												augure grinding
2												
							80					augure grinding
3 79.4							W. L. 79.6 m					augure grinding
3.0							Nov 14, 2018					
							79					augure grinding
4 78.4							Screen					augure grinding
4.0												
							78					
77.8												
4.6	**END OF BOREHOLE**											augure grinding

Notes:
1) Borehole was open and dry upon completion.
2) 50mm dia. monitoring well was installed upon completion.

Water Level Readings:

Date	W.L.Depth (m)
Nov. 14, 2018	2.84

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ ε=3% Strain at Failure

LOG OF BOREHOLE BH18-2 (Deep)

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825304 E 616036

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/05/2018 to Nov/06/2018

REF. NO.: 181-11306-00
ENCL NO.: 2

ELEV / DEPTH (m)	DESCRIPTION	NUMBER	TYPE	BLOWS "N" 0.3 m	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.1	Ground Surface				
82.0	**ASPHALT:** 100mm				
0.1 / 81.5	**GRANULAR BASE /SUBBASE:** 500mm (gravelly sand)	1	SS	7	
0.6 / 80.6	**FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, wood fragment, trace organic, brown to dark brown, moist, stiff.	2	SS	8	
1.5 / 79.0	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard	3	SS	16	augure grinding
		4	SS	27	augure grinding
3.1	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard	5	SS	50/ 0mm	spoon/hammer bouncing
		6	SS	50/ 0mm	augure grinding spoon/hammer bouncing
		7	SS	50/ 125mm	augure grinding augure grinding spoon/hammer bouncing
		8	SS	50/ 0mm	augure grinding augure grinding spoon/hammer bouncing
		9	SS	50/ 125mm	augure grinding augure grinding spoon/hammer bouncing
75.6		10	SS	50/ 0mm	spoon/hammer bouncing
6.5	**SHALE:** grey weathered shale interbedded with siltstone /limestone.	1	CORE		
		2	CORE		
		3	CORE		

GROUND WATER CONDITIONS: Flush Mounted Cover; Sand; Holeplug; W. L. 76.9 m Nov 14, 2018; Sand; Screen

ELEVATION: 82, 81, 80, 79, 78, 77, 76, 75, 74, 73

Head Space Combustible Vapor Reading (ppm): 2, 4, 6, 8, 10

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%): 10, 20, 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

Continued Next Page

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

LOG OF BOREHOLE BH18-2 (Deep)

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825304 E 616036

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/05/2018 to Nov/06/2018

REF. NO.: 181-11306-00
ENCL NO.: 2

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT; WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued							2 4 6 8 10	10 20 30			
71.6	**SHALE:** grey weathered shale interbedded with siltstone /limestone.(Continued)		4	CORE			Sand / Bentonite					
10.5	**END OF BOREHOLE** Notes: 1) Borehole was open and dry upon completion. 2) 50mm dia. monitoring well was installed upon completion. Water Level Readings: Date W.L.Depth (m) Nov. 14, 2018 5.22											

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-2 (Shallow)

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825306 E 616038

Method: Hollow Stem Augers/Coring
Diameter: 216mm
Date: Nov/05/2018 to Nov/05/2018

REF. NO.: 181-11306-00
ENCL NO.: 2a

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.1	Ground Surface							2 4 6 8 10	10 20 30			
82.0 0.1	Direct Drilling to Depth of 4.6 m Without Sampling. Lithology inferred from BH18-2 (Deep)						Flush Mounted Cover					
							Sand					
81.5 0.6							Holeplug					
1							81					
80.6 1.5							Sand					
2							80					
							W. L. 80.0 m Nov 14, 2018					augure grinding
												augure grinding
												augure grinding
3 79.0 3.1							Screen					augure grinding
												augure grinding
												augure grinding
4							78					augure grinding
												augure grinding
77.5												augure grinding
4.6	**END OF BOREHOLE**											grinding

Notes:
1) Borehole was open and dry upon completion.
2) 50mm dia. monitoring well was installed upon completion.

Water Level Readings:

Date	W.L.Depth (m)
Nov. 14, 2018	2.12

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-3

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825322.5 E 616002.4

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/06/2018 to Nov/07/2018

REF. NO.: 181-11306-00
ENCL NO.: 3

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.5 / 0.0	Ground Surface				
82.4 / 0.1	**TOPSOIL:** 75mm				
	FILL: silty clay, trace sand, trace gravel, shale fragment, rootlets, brown to dark brown, moist, firm to stiff.	1	SS	5	
		2	SS	9	
81.0 / 1.5	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard	3	SS	20	
		4	SS	31	
79.4 / 3.1	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard	5	SS	50/ 25mm	
78.7 / 3.8	**SHALE:** grey weathered shale interbedded with siltstone /limestone.	6	SS	50/ 25mm	spoon/hammer bouncing
		1	CORE		augure grinding
		2	CORE		spoon/hammer bouncing
		3	CORE		
		4	CORE		

GROUND WATER CONDITIONS

ELEVATION: 82, 81, 80, 79, 78, 77, 76, 75, 74, 73

Head Space Combustible Vapor Reading (ppm)
2 4 6 8 10

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L
WATER CONTENT (%)
10 20 30

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

Continued Next Page

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-3

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825322.5 E 616002.4

Method: Hollow Stem Augers
Diameter: 216/63.5mm
Date: Nov/06/2018 to Nov/07/2018

REF. NO.: 181-11306-00
ENCL NO.: 3

SOIL PROFILE (m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm) 2 4 6 8 10	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L WATER CONTENT (%) 10 20 30	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
	Continued											
72.4 10.1	**END OF BOREHOLE** Notes: 1) Borehole was open and dry upon completion.		5	CORE								

GROUNDWATER ELEVATIONS
Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-4

PROJECT: 958-960 East Avenue
CLIENT: Region of Peel
PROJECT LOCATION: 958-96 Lake Avenue, Mississauga
DATUM: Geodetic
BH LOCATION: N 4825283.4 E 616023.4

Method: Hollow Stem Augers
Diameter: 216mm
Date: Nov/08/2018 to Nov/08/2018

REF. NO.: 181-11306-00
ENCL NO.: 4

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT (w_P / w / w_L) WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
81.9	Ground Surface							2 4 6 8 10	10 20 30			
80.0 / 0.1	**TOPSOIL:** 120mm **FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, trace organic, brown to dark brown, moist, firm to stiff.		1	SS	9		Rising Up Casing (0.89 m) Sand					
1			2	SS	5		Holeplug					
2 / 79.8			3	SS	3	▽	80					
2.1	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard		4	SS	50/ 125mm		W. L. 80.0 m Nov 14, 2018					spoon/hammer bouncing augure grinding
3			5	SS	50/ 75mm		Sand					augure grinding augure grinding spoon/hammer bouncing
78.2												augure grinding
3.7	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard		6	SS	50/ 100mm		78					
4 / 77.6	inferred bedrock											
4.3	**END OF BOREHOLE** Notes: 1) Borehole was open and dry upon completion. 2) 50mm dia. monitoring well was installed upon completion. Water Level Readings: Date W.L.Depth (m) Nov. 14, 2018 1.9		7	SS	50/ 0mm		Screen					spoon/hammer bouncing spoon/hammer bouncing

GROUNDWATER ELEVATIONS
Measurement 1st ▽ 2nd ▼ 3rd ▼ 4th ▼

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

LOG OF BOREHOLE BH18-5

PROJECT: 958-960 East Avenue

CLIENT: Region of Peel

PROJECT LOCATION: 958-96 Lake Avenue, Mississauga

DATUM: Geodetic

BH LOCATION: N 4825300 E 615972.5

Method: Solid Stem Augers

Diameter: 102mm

Date: Nov/09/2018 to Nov/09/2018

REF. NO.: 181-11306-00

ENCL NO.: 5

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT / NATURAL MOISTURE CONTENT / LIQUID LIMIT; WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.2	Ground Surface											
82.0	**TOPSOIL:** 100mm						Rising Up Casing (0.89 m)					
0.1	**FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, trace organic, brown to dark brown, moist, soft to stiff.		1	SS	12		Sand					
1			2	SS	3		Holeplug					
80.7							81					
1.5	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, stiff to very stiff		3	SS	8		Sand					
2							W. L. 80.3 m Nov 14, 2018					
			4	SS	27		80					
79.2							Screen					
3.0	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard		5	SS	50/ 125mm		79					augure grinding spoon/hammer bouncing augure grinding augure grinding
4							78					
77.6	inferred bedrock											
4.6	**END OF BOREHOLE**		6	SS	50/ 0mm							spoon/hammer bouncing augure grinding spoon/hammer bouncing

Notes:
1) Borehole was open and dry upon completion.
2) 50mm dia. monitoring well was installed upon completion.

Water Level Readings:

Date	W.L.Depth (m)
Nov. 14, 2018	1.9

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

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

LOG OF BOREHOLE BH18-6

PROJECT: 958-960 East Avenue

CLIENT: Region of Peel

PROJECT LOCATION: 958-96 Lake Avenue, Mississauga

DATUM: Geodetic

BH LOCATION: N 4825258 E 616003.1

Method: Solid Stem Augers

Diameter: 102mm

Date: Nov/08/2018 to Nov/08/2018

REF. NO.: 181-11306-00

ENCL NO.: 6

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
82.1	Ground Surface				
82.0	**TOPSOIL:** 150mm				
0.2	**FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, trace organic, brown to dark brown, moist, stiff.	1	SS	9	
81.2					
1 0.9	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard	2	SS	24	augure grinding
2		3	SS	33	augure grinding
3 79.1		4	SS	64	
3.0	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard	5	SS	50/ 125mm	spoon/hammer bouncing
4		6	SS	50/ 50mm	augure grinding
		7	SS	50/ 75mm	spoon/hammer bouncing
77.2					augure grinding
5 4.9	**SHALE:** grey weathered shale interbedded with siltstone /limestone.	8	AS		spoon/hammer bouncing
6 75.9		9	SS	50/ 0mm	augure grinding
6.2	**END OF BOREHOLE** Notes: 1) Borehole was open and dry upon completion.				augure grinding spoon/hammer bouncing

Head Space Combustible Vapor Reading (ppm)

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L

WATER CONTENT (%)

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES

+ 3, × 3: Numbers refer to Sensitivity

○ ε=3% Strain at Failure

LOG OF BOREHOLE BH18-7

PROJECT: 958-960 East Avenue

CLIENT: Region of Peel

PROJECT LOCATION: 958-96 Lake Avenue, Mississauga

DATUM: Geodetic

BH LOCATION: N 4825247.2 E 615945.6

Method: Solid Stem Augers

Diameter: 102mm

Date: Nov/09/2018 to Nov/09/2018

REF. NO.: 181-11306-00

ENCL NO.: 7

(m) ELEV / DEPTH	DESCRIPTION	NUMBER	TYPE	BLOWS 0.3 m "N"	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	WATER CONTENT (%)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
81.7	Ground Surface								
81.6	**TOPSOIL:** 100mm								
0.1	**FILL:** silty clay, trace sand, trace gravel, shale fragment, rootlets, trace organic, brown to dark brown, moist, stiff.	1	SS	6		Rising Up Casing (0.89 m) Sand			
80.8						81 Holeplug			
1 0.9	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard	2	SS	40		Sand			
		3	SS	28		80			augure grinding
		4	SS	50/ 200mm					spoon/hammer bouncing
3 78.7						79			augure grinding
3.0	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard	5	SS	50/ 125mm		Screen			spoon/hammer bouncing
77.8						78			
4 3.9	**SHALE:** grey weathered shale interbedded with siltstone /limestone.	6	SS	50/ 75mm					spoon/hammer bouncing
77.1									augure grinding
4.6	**END OF BOREHOLE**	7	SS	50/ 0mm					spoon/hammer bouncing

Notes:
1) Borehole was open and dry upon completion.
2) 50mm dia. monitoring well was installed upon completion.

Water Level Readings:

Date	W.L.Depth (m)
Nov. 14, 2018	Dry

PLASTIC LIMIT w_P | NATURAL MOISTURE CONTENT w | LIQUID LIMIT w_L

POCKET PEN. (Cu) (kPa)

NATURAL UNIT WT (kN/m³)

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES: $+^3$, $\times^3$: Numbers refer to Sensitivity; $\circ^6$ ε=3% Strain at Failure

LOG OF BOREHOLE BH18-8

PROJECT: 958-960 East Avenue

CLIENT: Region of Peel

PROJECT LOCATION: 958-96 Lake Avenue, Mississauga

DATUM: Geodetic

BH LOCATION: N 4825227.7 E 615973.4

Method: Solid Stem Augers

Diameter: 102mm

Date: Nov/08/2018 to Nov/08/2018

REF. NO.: 181-11306-00

ENCL NO.: 8

(m) ELEV / DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	BLOWS "N" 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustible Vapor Reading (ppm)	PLASTIC LIMIT w_P / NATURAL MOISTURE CONTENT w / LIQUID LIMIT w_L — WATER CONTENT (%)	POCKET PEN. (Cu) (kPa)	NATURAL UNIT WT (kN/m³)	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
81.1	Ground Surface											
80.9 / 0.1	**TOPSOIL:** 100mm						81					
	FILL: silty clay, trace sand, trace gravel, shale fragment, rootlets, trace organic, brown to dark brown, moist, stiff.		1	SS	9							
80.2												
1 0.9	**SILTY CLAY TILL:** trace sand, trace gravel, shale fragment, brownish grey, moist, very stiff to hard		2	SS	32		80					
			3	SS	82							augure grinding
2 78.8							79					augure grinding
2.3	**SILTY CLAY TILL/SHALE COMPLEX:** shale and limestone fragment, grey, dry, hard		4	SS	50/ 250mm							spoon/hammer bouncing
3			5	SS	50/ 125mm		78					augure grinding
			6	AS								spoon/hammer bouncing augure grinding
4 76.5							77					augure grinding augure grinding
4.6	**SHALE:** grey weathered shale interbedded with siltstone /limestone.		7	SS	50/ 75mm							spoon/hammer bouncing
5			8	AS			76					augure grinding augure grinding augure grinding
6 75.0												
6.1	**END OF BOREHOLE**		9	SS	50/ 0mm		75					spoon/hammer bouncing

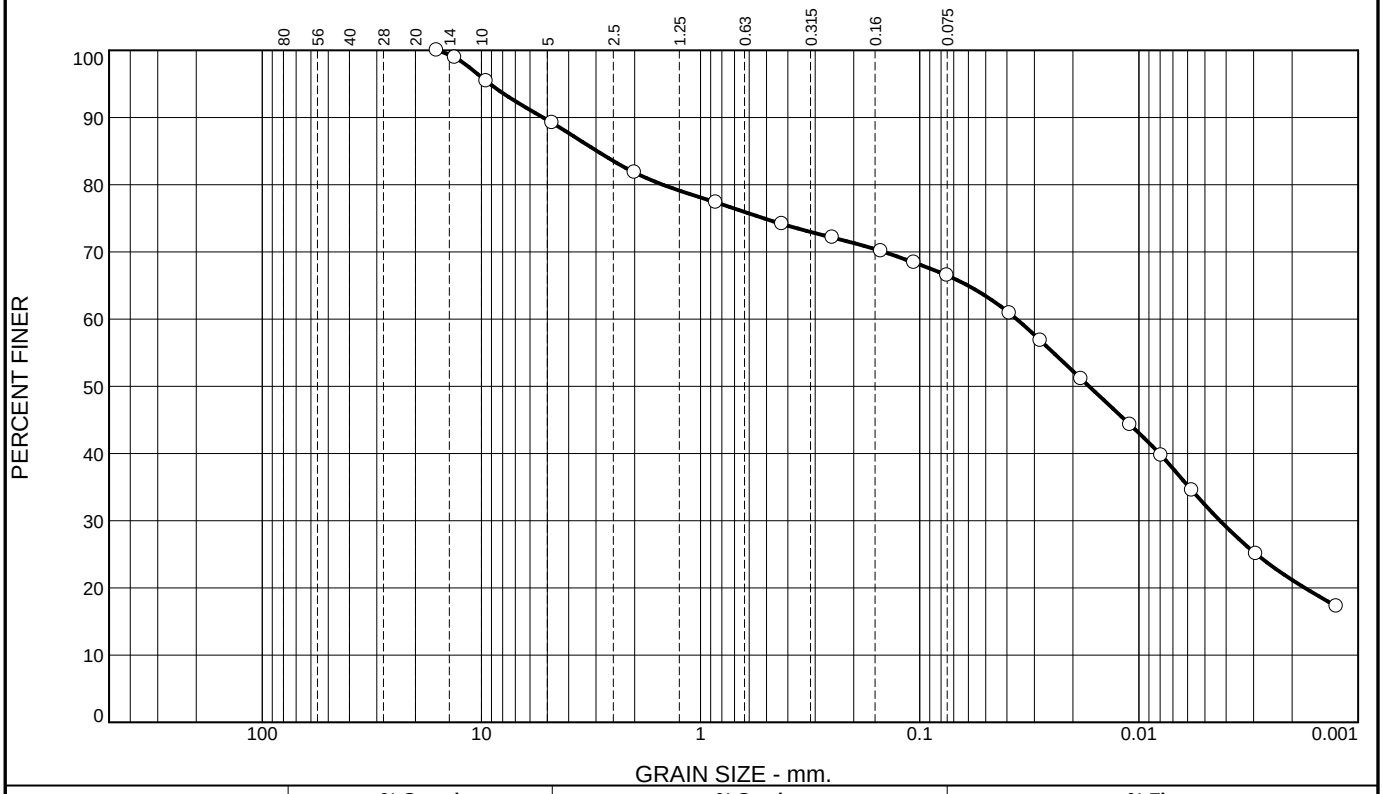
Notes:
1) Borehole was open and dry upon completion.

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH NOTES $+^{3}$, $\times^{3}$: Numbers refer to Sensitivity ○ ε=3% Strain at Failure

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	11	7	8	8	45	21

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
16.00	100		
13.20	99		
9.50	95		
4.75	89		
2.00	82		
0.85	77		
0.425	74		
0.250	72		
0.150	70		
0.106	68		
0.075	66		
0.0389 mm.	61		
0.0281 mm.	57		
0.0183 mm.	51		
0.0110 mm.	44		
0.0079 mm.	40		
0.0057 mm.	35		
0.0029 mm.	25		
0.0013 mm.	17		

* (no specification provided)

Soil Description

Atterberg Limits

PL= LL= PI=

Coefficients

D_{90}= 5.2364 D_{85}= 2.9679 D_{60}= 0.0361
D_{50}= 0.0169 D_{30}= 0.0043 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= AASHTO=

Remarks

Source of Sample: Site Drilling
Sample Number: BH18-1_SS4

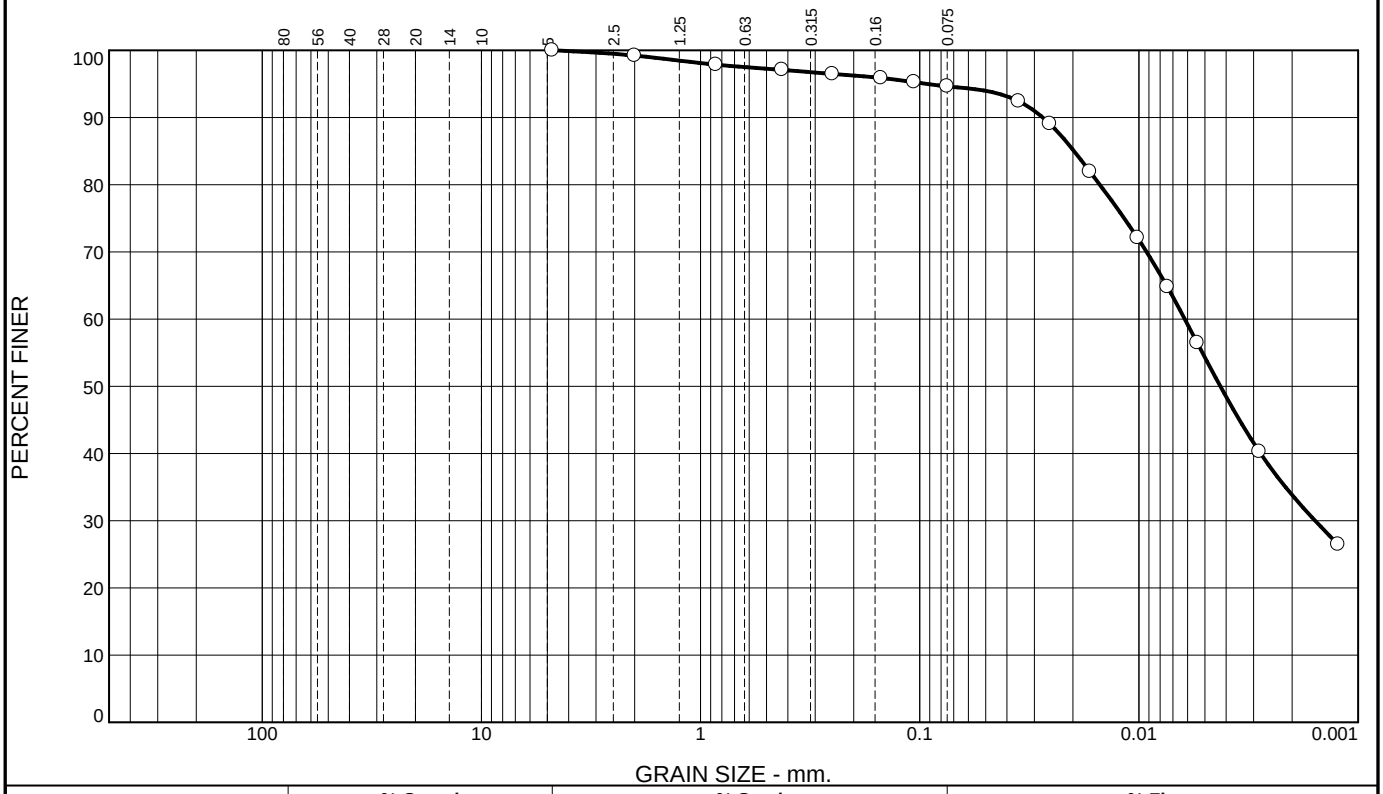
Date: Nov. 28, 2018

Client: Region of Peel
Project: 958-960 East Avenue

Project No: 181-11306-00 **Figure** 1

Tested By: LXQ

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	0	1	2	2	61	34

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
4.75	100		
2.00	99		
0.85	98		
0.425	97		
0.250	96		
0.150	96		
0.106	95		
0.075	95		
0.0354 mm.	92		
0.0255 mm.	89		
0.0167 mm.	82		
0.0101 mm.	72		
0.0074 mm.	65		
0.0054 mm.	56		
0.0028 mm.	40		
0.0012 mm.	26		

* (no specification provided)

Soil Description

Silty Clay

Atterberg Limits

PL= 21 LL= 39 PI= 18

Coefficients

D_{90}= 0.0274 D_{85}= 0.0198 D_{60}= 0.0062
D_{50}= 0.0043 D_{30}= 0.0016 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(18)

Remarks

Source of Sample: Site Drilling
Sample Number: BH18-2_SS3

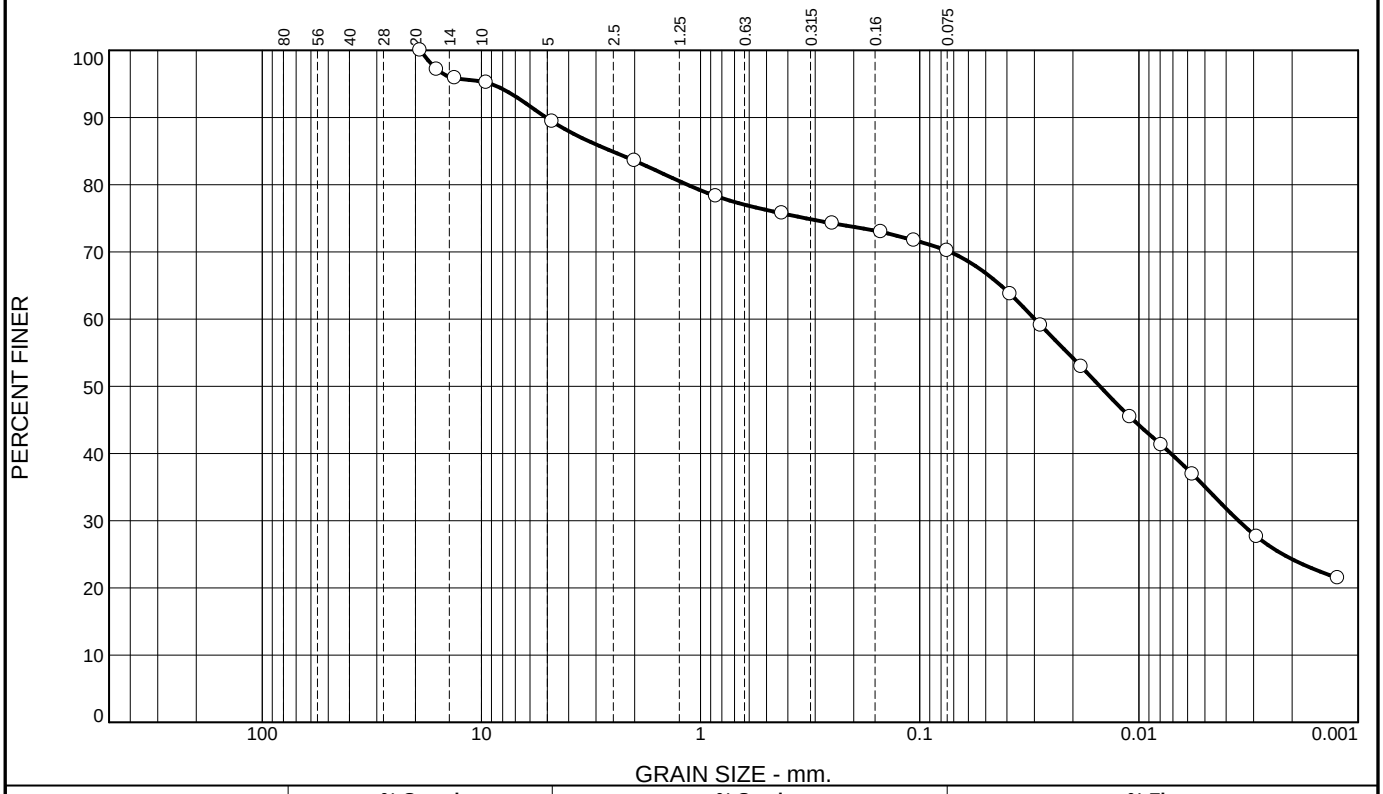
Date: Nov. 28, 2018

Client: Region of Peel
Project: 958-960 East Avenue

Project No: 181-11306-00 **Figure** 2

Tested By: LXQ

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0	0	11	5	8	6	46	24

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
19.00	100		
16.00	97		
13.20	96		
9.50	95		
4.75	89		
2.00	84		
0.85	78		
0.425	76		
0.250	74		
0.150	73		
0.106	72		
0.075	70		
0.0386 mm.	64		
0.0280 mm.	59		
0.0183 mm.	53		
0.0110 mm.	45		
0.0079 mm.	41		
0.0057 mm.	37		
0.0029 mm.	28		
0.0012 mm.	21		

* (no specification provided)

Soil Description

Sandy Silty Clay

Atterberg Limits

PL= 19 LL= 33 PI= 14

Coefficients

D_{90}= 5.0696 D_{85}= 2.5468 D_{60}= 0.0299
D_{50}= 0.0151 D_{30}= 0.0035 D_{15}=
D_{10}= C_u= C_c=

Classification

USCS= CL AASHTO= A-6(8)

Remarks

Source of Sample: Site Drilling
Sample Number: BH18-5_SS5

Date: Nov. 28, 2018

Client: Region of Peel
Project: 958-960 East Avenue

Project No: 181-11306-00 **Figure** 3

Tested By: LXQ

APPENDIX

D CERTIFICATES OF ANALYSIS

APPENDIX

D-1 SOIL

Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Your C.O.C. #: n/a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/29
Report #: R5504846
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U7372
Received: 2018/11/16, 16:16

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Conductivity	2	2018/11/27	2018/11/27	CAM SOP-00414	OMOE E3530 v1 m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

Encryption Key

Ashton Gibson
Project Manager
29 Nov 2018 16:51:16

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8U7372
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

RESULTS OF ANALYSES OF SOIL

Maxxam ID			IHZ422	IHZ423		
Sampling Date			2018/11/05	2018/11/05		
COC Number			n/a	n/a		
	UNITS	Criteria	BH18-2 SS4	BH18-2 SS5	RDL	QC Batch
Inorganics						
Conductivity	mS/cm	0.7	**1.8**	0.44	0.002	5856892

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8U7372
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IHZ422
Sample ID: BH18-2 SS4
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	5856892	2018/11/27	2018/11/27	Kazzandra Adeva

Maxxam ID: IHZ423
Sample ID: BH18-2 SS5
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/16

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	5856892	2018/11/27	2018/11/27	Kazzandra Adeva

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U7372
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

GENERAL COMMENTS

Results relate only to the items tested.

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Maxxam Job #: B8U7372
Report Date: 2018/11/29

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

			SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5856892	Conductivity	2018/11/27	103	90 - 110	<0.002	mS/cm	1.4	10

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

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

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

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Maxxam Job #: B8U7372
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Brad Newman, Scientific Service Specialist

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Maxxam
A Bureau Veritas Group Company

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP	Company Name: WSP	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name:	Contact Name: Michael Wilson	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court, Toronto, ON	Address: 51 Constellation Court, Toronto, ON	Project #: 181-11306-00 PH 220	Rush TAT (Surcharges will be applied) [ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Phone: 416-798-0065 Fax: 416-798-0518	Phone: 416-798-0065 Fax: 416-798-0518	Site Location:	
Email: payables.ontario@wsp.com	Email: michael.wilson@wsp.com	Site #: 758-760 East Av	Date Required:
		Sampled By: BS	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table ___
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region ___
[ ] Other (Specify) ___
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	EC/SAR							HOLD- DO NOT ANALYZE	COMMENTS
					Analysis Requested (REFER TO BACK OF COC)																
1	BH18-2 SS4	2018/11/05	PM	So	1								X							X	Hold -
2	BH18-2 SS5	"	PM	"	1								X							X	Hold -
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

LABORATORY USE ONLY

CUSTODY SEAL (Y / N) Present	Intact	COOLER TEMPERATURES
		2 | 3 | 3

COOLING MEDIA PRESENT: (Y) / N

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
[signature]	2018/11/16	07:30	[signature]	2018/11/16	16:16

16-Nov-18 16:16
Ashton Gibson
B8U7372
URE ENV-1156

Maxxam driver

Maxxam Job #: B8U7372
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00 PL 220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
BH18-2 SS4	IHZ422-01	Conductivity	0.7	1.8	0.002	mS/cm

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE
Your C.O.C. #: N/A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/21
Report #: R5493681
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8T6953
Received: 2018/11/07, 14:13

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	2	N/A	2018/11/13	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2018/11/10	2018/11/12	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2018/11/12	2018/11/12	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2018/11/09		EPA 8260C m
1,3-Dichloropropene Sum	1	N/A	2018/11/13		EPA 8260C m
Free (WAD) Cyanide	1	2018/11/09	2018/11/12	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	2018/11/12	2018/11/13	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2018/11/12	2018/11/12	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	1	2018/11/13	2018/11/13	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	1	2018/11/20	2018/11/20	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2018/11/09	2018/11/13	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2018/11/12	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	3	2018/11/09	2018/11/13	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	2	2018/11/10	2018/11/12	CAM SOP-00447	EPA 6020B m
Moisture	6	N/A	2018/11/08	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture	1	N/A	2018/11/12	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	2	2018/11/09	2018/11/10	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	2	2018/11/12	2018/11/12	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/13	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/14	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/21	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2018/11/08	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs	1	N/A	2018/11/09	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Soil	1	N/A	2018/11/12	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam in writing). All

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Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE
Your C.O.C. #: N/A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/21
Report #: R5493681
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B8T6953
Received: 2018/11/07, 14:13

data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

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Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.

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

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

(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following “Alberta Environment’s Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003”. Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ashton Gibson
Project Manager
21 Nov 2018 16:51:58

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IFR992			IFR995		
Sampling Date			2018/11/05			2018/11/06		
COC Number			N/A			N/A		
	UNITS	Criteria	BH18-2 SS2	RDL	QC Batch	BH18-3 SS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	**24**		5824976	2.2		5824976
Inorganics								
Conductivity	mS/cm	0.7	**2.9**	0.002	5832611	0.26	0.002	5832165
Moisture	%	-				16	1.0	5832697
Available (CaCl2) pH	pH	-	7.76		5832266	7.66		5832266
WAD Cyanide (Free)	ug/g	0.051	0.01	0.01	5829714	<0.01	0.01	5832898
Chromium (VI)	ug/g	8	<0.2	0.2	5829630	<0.2	0.2	5829630
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.27	0.050	5832167	0.10	0.050	5831223
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	5831295	0.21	0.20	5831295
Acid Extractable Arsenic (As)	ug/g	18	4.9	1.0	5831295	5.0	1.0	5831295
Acid Extractable Barium (Ba)	ug/g	390	140	0.50	5831295	69	0.50	5831295
Acid Extractable Beryllium (Be)	ug/g	4	1.2	0.20	5831295	0.75	0.20	5831295
Acid Extractable Boron (B)	ug/g	120	10	5.0	5831295	7.3	5.0	5831295
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.15	0.10	5831295	0.21	0.10	5831295
Acid Extractable Chromium (Cr)	ug/g	160	35	1.0	5831295	21	1.0	5831295
Acid Extractable Cobalt (Co)	ug/g	22	16	0.10	5831295	10	0.10	5831295
Acid Extractable Copper (Cu)	ug/g	140	31	0.50	5831295	24	0.50	5831295
Acid Extractable Lead (Pb)	ug/g	120	13	1.0	5831295	23	1.0	5831295
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	5831295	<0.50	0.50	5831295
Acid Extractable Nickel (Ni)	ug/g	100	36	0.50	5831295	21	0.50	5831295
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	5831295	<0.50	0.50	5831295
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	5831295	<0.20	0.20	5831295
Acid Extractable Thallium (Tl)	ug/g	1	0.20	0.050	5831295	0.14	0.050	5831295
Acid Extractable Uranium (U)	ug/g	23	0.63	0.050	5831295	0.61	0.050	5831295
Acid Extractable Vanadium (V)	ug/g	86	47	5.0	5831295	31	5.0	5831295
Acid Extractable Zinc (Zn)	ug/g	340	79	5.0	5831295	76	5.0	5831295
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	5831295	<0.050	0.050	5831295

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 PAHS (SOIL)

Maxxam ID			IFR992		IFR996		
Sampling Date			2018/11/05		2018/11/06		
COC Number			N/A		N/A		
	UNITS	Criteria	BH18-2 SS2	QC Batch	BH18-3 SS2	RDL	QC Batch
Inorganics							
Moisture	%	-	23	5828728	22	1.0	5828411
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	0.99	<0.0071	5824630	<0.0071	0.0071	5824630
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	7.9	<0.0050	5829805	<0.0050	0.0050	5829805
Acenaphthylene	ug/g	0.15	<0.0050	5829805	<0.0050	0.0050	5829805
Anthracene	ug/g	0.67	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(a)anthracene	ug/g	0.5	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(a)pyrene	ug/g	0.3	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(b/j)fluoranthene	ug/g	0.78	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(g,h,i)perylene	ug/g	6.6	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	5829805	<0.0050	0.0050	5829805
Chrysene	ug/g	7	<0.0050	5829805	<0.0050	0.0050	5829805
Dibenz(a,h)anthracene	ug/g	0.1	<0.0050	5829805	<0.0050	0.0050	5829805
Fluoranthene	ug/g	0.69	<0.0050	5829805	<0.0050	0.0050	5829805
Fluorene	ug/g	62	<0.0050	5829805	<0.0050	0.0050	5829805
Indeno(1,2,3-cd)pyrene	ug/g	0.38	<0.0050	5829805	<0.0050	0.0050	5829805
1-Methylnaphthalene	ug/g	0.99	<0.0050	5829805	<0.0050	0.0050	5829805
2-Methylnaphthalene	ug/g	0.99	<0.0050	5829805	<0.0050	0.0050	5829805
Naphthalene	ug/g	0.6	<0.0050	5829805	<0.0050	0.0050	5829805
Phenanthrene	ug/g	6.2	<0.0050	5829805	<0.0050	0.0050	5829805
Pyrene	ug/g	78	<0.0050	5829805	<0.0050	0.0050	5829805
Surrogate Recovery (%)							
D10-Anthracene	%	-	96	5829805	93		5829805
D14-Terphenyl (FS)	%	-	84	5829805	91		5829805
D8-Acenaphthylene	%	-	84	5829805	86		5829805

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID			IFR998		
Sampling Date			2018/11/06		
COC Number			N/A		
	UNITS	Criteria	QAQC3	RDL	QC Batch
Inorganics					
Moisture	%	-	14	1.0	5828260
BTEX & F1 Hydrocarbons					
Benzene	ug/g	0.21	<0.020	0.020	5832366
Toluene	ug/g	2.3	<0.020	0.020	5832366
Ethylbenzene	ug/g	2	<0.020	0.020	5832366
o-Xylene	ug/g	-	<0.020	0.020	5832366
p+m-Xylene	ug/g	-	<0.040	0.040	5832366
Total Xylenes	ug/g	3.1	<0.040	0.040	5832366
F1 (C6-C10)	ug/g	55	<10	10	5832366
F1 (C6-C10) - BTEX	ug/g	55	<10	10	5832366
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	5830668
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	5830668
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	5830668
Reached Baseline at C50	ug/g	-	Yes		5830668
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	-	99		5832366
4-Bromofluorobenzene	%	-	101		5832366
D10-Ethylbenzene	%	-	95		5832366
D4-1,2-Dichloroethane	%	-	101		5832366
o-Terphenyl	%	-	95		5830668

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IFR993	IFR997		
Sampling Date			2018/11/05	2018/11/06		
COC Number			N/A	N/A		
	UNITS	Criteria	BH18-2 SS3	BH18-3 SS3	RDL	QC Batch
Inorganics						
Moisture	%	-	15	16	1.0	5828260
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	5824975
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.50	<0.50	0.50	5827005
Benzene	ug/g	0.21	<0.020	<0.020	0.020	5827005
Bromodichloromethane	ug/g	13	<0.050	<0.050	0.050	5827005
Bromoform	ug/g	0.27	<0.050	<0.050	0.050	5827005
Bromomethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Carbon Tetrachloride	ug/g	0.05	<0.050	<0.050	0.050	5827005
Chlorobenzene	ug/g	2.4	<0.050	<0.050	0.050	5827005
Chloroform	ug/g	0.05	<0.050	<0.050	0.050	5827005
Dibromochloromethane	ug/g	9.4	<0.050	<0.050	0.050	5827005
1,2-Dichlorobenzene	ug/g	3.4	<0.050	<0.050	0.050	5827005
1,3-Dichlorobenzene	ug/g	4.8	<0.050	<0.050	0.050	5827005
1,4-Dichlorobenzene	ug/g	0.083	<0.050	<0.050	0.050	5827005
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	<0.050	0.050	5827005
1,1-Dichloroethane	ug/g	3.5	<0.050	<0.050	0.050	5827005
1,2-Dichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
1,1-Dichloroethylene	ug/g	0.05	<0.050	<0.050	0.050	5827005
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	<0.050	0.050	5827005
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	<0.050	0.050	5827005
1,2-Dichloropropane	ug/g	0.05	<0.050	<0.050	0.050	5827005
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	5827005
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	5827005
Ethylbenzene	ug/g	2	<0.020	<0.020	0.020	5827005
Ethylene Dibromide	ug/g	0.05	<0.050	<0.050	0.050	5827005
Hexane	ug/g	2.8	<0.050	<0.050	0.050	5827005
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	<0.050	0.050	5827005

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IFR993	IFR997		
Sampling Date			2018/11/05	2018/11/06		
COC Number			N/A	N/A		
	UNITS	Criteria	BH18-2 SS3	BH18-3 SS3	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	<0.50	0.50	5827005
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	<0.50	0.50	5827005
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	<0.050	0.050	5827005
Styrene	ug/g	0.7	<0.050	<0.050	0.050	5827005
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	<0.050	0.050	5827005
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Tetrachloroethylene	ug/g	0.28	<0.050	<0.050	0.050	5827005
Toluene	ug/g	2.3	<0.020	<0.020	0.020	5827005
1,1,1-Trichloroethane	ug/g	0.38	<0.050	<0.050	0.050	5827005
1,1,2-Trichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Trichloroethylene	ug/g	0.061	<0.050	<0.050	0.050	5827005
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	<0.050	0.050	5827005
Vinyl Chloride	ug/g	0.02	<0.020	<0.020	0.020	5827005
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	5827005
o-Xylene	ug/g	-	<0.020	<0.020	0.020	5827005
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	5827005
F1 (C6-C10)	ug/g	55	<10	<10	10	5827005
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	5827005
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	5830668
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	5830668
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	5830668
Reached Baseline at C50	ug/g	-	Yes	Yes		5830668
Surrogate Recovery (%)						
o-Terphenyl	%	-	101	89		5830668
4-Bromofluorobenzene	%	-	97	98		5827005
D10-o-Xylene	%	-	102	104		5827005
D4-1,2-Dichloroethane	%	-	101	103		5827005
D8-Toluene	%	-	99	99		5827005

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS (SOIL)

Maxxam ID			IFR994		
Sampling Date			2018/11/05		
COC Number			N/A		
	UNITS	Criteria	QAQC2	RDL	QC Batch
Inorganics					
Moisture	%	-	15	1.0	5827432
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	5824975
Volatile Organics					
Acetone (2-Propanone)	ug/g	16	<0.50	0.50	5829333
Benzene	ug/g	0.21	<0.020	0.020	5829333
Bromodichloromethane	ug/g	13	<0.050	0.050	5829333
Bromoform	ug/g	0.27	<0.050	0.050	5829333
Bromomethane	ug/g	0.05	<0.050	0.050	5829333
Carbon Tetrachloride	ug/g	0.05	<0.050	0.050	5829333
Chlorobenzene	ug/g	2.4	<0.050	0.050	5829333
Chloroform	ug/g	0.05	<0.050	0.050	5829333
Dibromochloromethane	ug/g	9.4	<0.050	0.050	5829333
1,2-Dichlorobenzene	ug/g	3.4	<0.050	0.050	5829333
1,3-Dichlorobenzene	ug/g	4.8	<0.050	0.050	5829333
1,4-Dichlorobenzene	ug/g	0.083	<0.050	0.050	5829333
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	0.050	5829333
1,1-Dichloroethane	ug/g	3.5	<0.050	0.050	5829333
1,2-Dichloroethane	ug/g	0.05	<0.050	0.050	5829333
1,1-Dichloroethylene	ug/g	0.05	<0.050	0.050	5829333
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	0.050	5829333
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	0.050	5829333
1,2-Dichloropropane	ug/g	0.05	<0.050	0.050	5829333
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	5829333
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	5829333
Ethylbenzene	ug/g	2	<0.020	0.020	5829333
Ethylene Dibromide	ug/g	0.05	<0.050	0.050	5829333
Hexane	ug/g	2.8	<0.050	0.050	5829333
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	0.050	5829333

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS (SOIL)

Maxxam ID			IFR994		
Sampling Date			2018/11/05		
COC Number			N/A		
	UNITS	Criteria	QAQC2	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	0.50	5829333
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	0.50	5829333
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	0.050	5829333
Styrene	ug/g	0.7	<0.050	0.050	5829333
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	0.050	5829333
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	0.050	5829333
Tetrachloroethylene	ug/g	0.28	<0.050	0.050	5829333
Toluene	ug/g	2.3	<0.020	0.020	5829333
1,1,1-Trichloroethane	ug/g	0.38	<0.050	0.050	5829333
1,1,2-Trichloroethane	ug/g	0.05	<0.050	0.050	5829333
Trichloroethylene	ug/g	0.061	<0.050	0.050	5829333
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	0.050	5829333
Vinyl Chloride	ug/g	0.02	<0.020	0.020	5829333
p+m-Xylene	ug/g	-	<0.020	0.020	5829333
o-Xylene	ug/g	-	<0.020	0.020	5829333
Total Xylenes	ug/g	3.1	<0.020	0.020	5829333
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	-	94		5829333
D10-o-Xylene	%	-	112		5829333
D4-1,2-Dichloroethane	%	-	100		5829333
D8-Toluene	%	-	98		5829333

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

RESULTS OF ANALYSES OF SOIL

Maxxam ID			IFR993		
Sampling Date			2018/11/05		
COC Number			N/A		
	UNITS	Criteria	BH18-2 SS3	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0	3.5		5838733
Inorganics					
Conductivity	mS/cm	0.7	**2.0**	0.002	5846829

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
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Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
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Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

TEST SUMMARY

Maxxam ID: IFR992
Sample ID: BH18-2 SS2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5824630	N/A	2018/11/13	Automated Statchk
Hot Water Extractable Boron	ICP	5832167	2018/11/12	2018/11/12	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5829714	2018/11/09	2018/11/12	Xuanhong Qiu
Conductivity	AT	5832611	2018/11/13	2018/11/13	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5829630	2018/11/09	2018/11/13	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5831295	2018/11/10	2018/11/12	Daniel Teclu
Moisture	BAL	5828728	N/A	2018/11/08	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5829805	2018/11/09	2018/11/10	Jett Wu
pH CaCl2 EXTRACT	AT	5832266	2018/11/12	2018/11/12	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5824976	N/A	2018/11/14	Automated Statchk

Maxxam ID: IFR993
Sample ID: BH18-2 SS3
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/09	Automated Statchk
Conductivity	AT	5846829	2018/11/20	2018/11/20	Barbara Kalbasi Esfahani
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang
Sodium Adsorption Ratio (SAR)	CALC/MET	5838733	N/A	2018/11/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5827005	N/A	2018/11/08	Manpreet Sarao

Maxxam ID: IFR993 Dup
Sample ID: BH18-2 SS3
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Conductivity	AT	5846829	2018/11/20	2018/11/20	Barbara Kalbasi Esfahani

Maxxam ID: IFR994
Sample ID: QAQC2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/13	Automated Statchk
Moisture	BAL	5827432	N/A	2018/11/08	Min Yang
Volatile Organic Compounds in Soil	GC/MS	5829333	N/A	2018/11/12	Karen Hughes

Maxxam ID: IFR994 Dup
Sample ID: QAQC2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Soil	GC/MS	5829333	N/A	2018/11/12	Karen Hughes

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Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

TEST SUMMARY

Maxxam ID: IFR995 **Collected:** 2018/11/06
Sample ID: BH18-3 SS1 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5831223	2018/11/10	2018/11/12	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5832898	2018/11/12	2018/11/13	Louise Harding
Conductivity	AT	5832165	2018/11/12	2018/11/12	Surinder Rai
Hexavalent Chromium in Soil by IC	IC/SPEC	5829630	2018/11/09	2018/11/13	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5831295	2018/11/10	2018/11/12	Daniel Teclu
Moisture	BAL	5832697	N/A	2018/11/12	Min Yang
pH CaCl2 EXTRACT	AT	5832266	2018/11/12	2018/11/12	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5824976	N/A	2018/11/13	Automated Statchk

Maxxam ID: IFR996 **Collected:** 2018/11/06
Sample ID: BH18-3 SS2 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5824630	N/A	2018/11/13	Automated Statchk
Moisture	BAL	5828411	N/A	2018/11/08	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5829805	2018/11/09	2018/11/10	Jett Wu

Maxxam ID: IFR997 **Collected:** 2018/11/06
Sample ID: BH18-3 SS3 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5827005	N/A	2018/11/09	Manpreet Sarao

Maxxam ID: IFR998 **Collected:** 2018/11/06
Sample ID: QAQC3 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	5832366	N/A	2018/11/12	Abdi Mohamud
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang

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GENERAL COMMENTS

Revised[2018/11/21]: EC and SAR added to sample BH18-2 SS3.

Custody seal was present but not intact

Results relate only to the items tested.

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Maxxam Job #: B8T6953
Report Date: 2018/11/21

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5827005	4-Bromofluorobenzene	2018/11/08	101	60 - 140	101	60 - 140	100	%		
5827005	D10-o-Xylene	2018/11/08	100	60 - 130	105	60 - 130	95	%		
5827005	D4-1,2-Dichloroethane	2018/11/08	99	60 - 140	98	60 - 140	98	%		
5827005	D8-Toluene	2018/11/08	102	60 - 140	102	60 - 140	99	%		
5829333	4-Bromofluorobenzene	2018/11/12	99	60 - 140	98	60 - 140	95	%		
5829333	D10-o-Xylene	2018/11/12	120	60 - 130	114	60 - 130	107	%		
5829333	D4-1,2-Dichloroethane	2018/11/12	97	60 - 140	101	60 - 140	105	%		
5829333	D8-Toluene	2018/11/12	128	60 - 140	105	60 - 140	96	%		
5829805	D10-Anthracene	2018/11/09	98	50 - 130	94	50 - 130	100	%		
5829805	D14-Terphenyl (FS)	2018/11/09	103	50 - 130	100	50 - 130	101	%		
5829805	D8-Acenaphthylene	2018/11/09	88	50 - 130	89	50 - 130	87	%		
5830668	o-Terphenyl	2018/11/13	128	60 - 130	112	60 - 130	120	%		
5832366	1,4-Difluorobenzene	2018/11/12	101	60 - 140	99	60 - 140	102	%		
5832366	4-Bromofluorobenzene	2018/11/12	100	60 - 140	102	60 - 140	103	%		
5832366	D10-Ethylbenzene	2018/11/12	93	60 - 140	104	60 - 140	90	%		
5832366	D4-1,2-Dichloroethane	2018/11/12	101	60 - 140	99	60 - 140	101	%		
5827005	1,1,1,2-Tetrachloroethane	2018/11/08	97	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,1-Trichloroethane	2018/11/08	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,2,2-Tetrachloroethane	2018/11/08	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,2-Trichloroethane	2018/11/08	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,1-Dichloroethane	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	1,1-Dichloroethylene	2018/11/08	91	60 - 140	90	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichlorobenzene	2018/11/08	93	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichloroethane	2018/11/08	96	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichloropropane	2018/11/08	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	1,3-Dichlorobenzene	2018/11/08	93	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,4-Dichlorobenzene	2018/11/08	92	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Acetone (2-Propanone)	2018/11/08	98	60 - 140	94	60 - 140	<0.50	ug/g	NC	50
5827005	Benzene	2018/11/08	92	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
5827005	Bromodichloromethane	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Bromoform	2018/11/08	98	60 - 140	98	60 - 130	<0.050	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5827005	Bromomethane	2018/11/08	98	60 - 140	96	60 - 140	<0.050	ug/g	NC	50
5827005	Carbon Tetrachloride	2018/11/08	93	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5827005	Chlorobenzene	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Chloroform	2018/11/08	93	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5827005	cis-1,2-Dichloroethylene	2018/11/08	89	60 - 140	88	60 - 130	<0.050	ug/g	NC	50
5827005	cis-1,3-Dichloropropene	2018/11/08	89	60 - 140	88	60 - 130	<0.030	ug/g	NC	50
5827005	Dibromochloromethane	2018/11/08	102	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5827005	Dichlorodifluoromethane (FREON 12)	2018/11/08	99	60 - 140	99	60 - 140	<0.050	ug/g	NC	50
5827005	Ethylbenzene	2018/11/08	94	60 - 140	94	60 - 130	<0.020	ug/g	NC	50
5827005	Ethylene Dibromide	2018/11/08	100	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5827005	F1 (C6-C10) - BTEX	2018/11/08					<10	ug/g	NC	30
5827005	F1 (C6-C10)	2018/11/08	89	60 - 140	87	80 - 120	<10	ug/g	NC	30
5827005	Hexane	2018/11/08	89	60 - 140	88	60 - 130	<0.050	ug/g	NC	50
5827005	Methyl Ethyl Ketone (2-Butanone)	2018/11/08	99	60 - 140	96	60 - 140	<0.50	ug/g	NC	50
5827005	Methyl Isobutyl Ketone	2018/11/08	94	60 - 140	93	60 - 130	<0.50	ug/g	NC	50
5827005	Methyl t-butyl ether (MTBE)	2018/11/08	96	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5827005	Methylene Chloride(Dichloromethane)	2018/11/08	99	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5827005	o-Xylene	2018/11/08	92	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5827005	p+m-Xylene	2018/11/08	90	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
5827005	Styrene	2018/11/08	93	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	Tetrachloroethylene	2018/11/08	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	Toluene	2018/11/08	90	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
5827005	Total Xylenes	2018/11/08					<0.020	ug/g	NC	50
5827005	trans-1,2-Dichloroethylene	2018/11/08	91	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5827005	trans-1,3-Dichloropropene	2018/11/08	95	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
5827005	Trichloroethylene	2018/11/08	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	Trichlorofluoromethane (FREON 11)	2018/11/08	99	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5827005	Vinyl Chloride	2018/11/08	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5827432	Moisture	2018/11/08							0	20
5828260	Moisture	2018/11/08							0.97	20
5828411	Moisture	2018/11/08							1.5	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5828728	Moisture	2018/11/08							0.67	20
5829333	1,1,1,2-Tetrachloroethane	2018/11/12	100	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,1-Trichloroethane	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,2,2-Tetrachloroethane	2018/11/12	92	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,2-Trichloroethane	2018/11/12	95	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	1,1-Dichloroethane	2018/11/12	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,1-Dichloroethylene	2018/11/12	99	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichlorobenzene	2018/11/12	100	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichloroethane	2018/11/12	93	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichloropropane	2018/11/12	94	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,3-Dichlorobenzene	2018/11/12	104	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5829333	1,4-Dichlorobenzene	2018/11/12	103	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5829333	Acetone (2-Propanone)	2018/11/12	88	60 - 140	96	60 - 140	<0.50	ug/g	NC	50
5829333	Benzene	2018/11/12	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5829333	Bromodichloromethane	2018/11/12	93	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Bromoform	2018/11/12	92	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	Bromomethane	2018/11/12	105	60 - 140	100	60 - 140	<0.050	ug/g	NC	50
5829333	Carbon Tetrachloride	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Chlorobenzene	2018/11/12	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Chloroform	2018/11/12	97	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5829333	cis-1,2-Dichloroethylene	2018/11/12	95	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	cis-1,3-Dichloropropene	2018/11/12	98	60 - 140	95	60 - 130	<0.030	ug/g	NC	50
5829333	Dibromochloromethane	2018/11/12	95	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Dichlorodifluoromethane (FREON 12)	2018/11/12	106	60 - 140	103	60 - 140	<0.050	ug/g	NC	50
5829333	Ethylbenzene	2018/11/12	100	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
5829333	Ethylene Dibromide	2018/11/12	94	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	Hexane	2018/11/12	104	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Methyl Ethyl Ketone (2-Butanone)	2018/11/12	86	60 - 140	98	60 - 140	<0.50	ug/g	NC	50
5829333	Methyl Isobutyl Ketone	2018/11/12	89	60 - 140	102	60 - 130	<0.50	ug/g	NC	50
5829333	Methyl t-butyl ether (MTBE)	2018/11/12	91	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5829333	Methylene Chloride(Dichloromethane)	2018/11/12	90	60 - 140	91	60 - 130	<0.050	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5829333	o-Xylene	2018/11/12	100	60 - 140	98	60 - 130	<0.020	ug/g	NC	50
5829333	p+m-Xylene	2018/11/12	101	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
5829333	Styrene	2018/11/12	102	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5829333	Tetrachloroethylene	2018/11/12	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Toluene	2018/11/12	98	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
5829333	Total Xylenes	2018/11/12					<0.020	ug/g	NC	50
5829333	trans-1,2-Dichloroethylene	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	trans-1,3-Dichloropropene	2018/11/12	106	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
5829333	Trichloroethylene	2018/11/12	97	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	Trichlorofluoromethane (FREON 11)	2018/11/12	104	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5829333	Vinyl Chloride	2018/11/12	102	60 - 140	99	60 - 130	<0.020	ug/g	NC	50
5829630	Chromium (VI)	2018/11/13	52 (1)	70 - 130	91	80 - 120	<0.2	ug/g	NC	35
5829714	WAD Cyanide (Free)	2018/11/12	100	75 - 125	105	80 - 120	<0.01	ug/g	NC	35
5829805	1-Methylnaphthalene	2018/11/09	106	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5829805	2-Methylnaphthalene	2018/11/09	94	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
5829805	Acenaphthene	2018/11/09	100	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
5829805	Acenaphthylene	2018/11/09	92	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Anthracene	2018/11/09	107	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(a)anthracene	2018/11/09	102	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(a)pyrene	2018/11/09	94	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(b/j)fluoranthene	2018/11/09	103	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(g,h,i)perylene	2018/11/09	92	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(k)fluoranthene	2018/11/09	95	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
5829805	Chrysene	2018/11/09	103	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5829805	Dibenz(a,h)anthracene	2018/11/09	95	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Fluoranthene	2018/11/09	110	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
5829805	Fluorene	2018/11/09	98	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5829805	Indeno(1,2,3-cd)pyrene	2018/11/09	98	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Naphthalene	2018/11/09	96	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5829805	Phenanthrene	2018/11/09	103	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5829805	Pyrene	2018/11/09	114	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5830668	F2 (C10-C16 Hydrocarbons)	2018/11/13	NC	50 - 130	110	80 - 120	<10	ug/g	40 (2)	30
5830668	F3 (C16-C34 Hydrocarbons)	2018/11/13	NC	50 - 130	113	80 - 120	<50	ug/g	42 (2)	30
5830668	F4 (C34-C50 Hydrocarbons)	2018/11/13	112	50 - 130	110	80 - 120	<50	ug/g	NC	30
5831223	Hot Water Ext. Boron (B)	2018/11/12	97	75 - 125	95	75 - 125	<0.050	ug/g	13	40
5831295	Acid Extractable Antimony (Sb)	2018/11/12	96	75 - 125	102	80 - 120	<0.20	ug/g	24	30
5831295	Acid Extractable Arsenic (As)	2018/11/12	104	75 - 125	100	80 - 120	<1.0	ug/g	5.5	30
5831295	Acid Extractable Barium (Ba)	2018/11/12	NC	75 - 125	99	80 - 120	<0.50	ug/g	8.6	30
5831295	Acid Extractable Beryllium (Be)	2018/11/12	102	75 - 125	97	80 - 120	<0.20	ug/g	5.7	30
5831295	Acid Extractable Boron (B)	2018/11/12	99	75 - 125	95	80 - 120	<5.0	ug/g	3.3	30
5831295	Acid Extractable Cadmium (Cd)	2018/11/12	104	75 - 125	100	80 - 120	<0.10	ug/g	14	30
5831295	Acid Extractable Chromium (Cr)	2018/11/12	108	75 - 125	100	80 - 120	<1.0	ug/g	1.9	30
5831295	Acid Extractable Cobalt (Co)	2018/11/12	102	75 - 125	100	80 - 120	<0.10	ug/g	0.47	30
5831295	Acid Extractable Copper (Cu)	2018/11/12	NC	75 - 125	98	80 - 120	<0.50	ug/g	0.12	30
5831295	Acid Extractable Lead (Pb)	2018/11/12	NC	75 - 125	102	80 - 120	<1.0	ug/g	3.9	30
5831295	Acid Extractable Mercury (Hg)	2018/11/12	99	75 - 125	98	80 - 120	<0.050	ug/g	7.3	30
5831295	Acid Extractable Molybdenum (Mo)	2018/11/12	104	75 - 125	99	80 - 120	<0.50	ug/g	0.97	30
5831295	Acid Extractable Nickel (Ni)	2018/11/12	106	75 - 125	100	80 - 120	<0.50	ug/g	0.83	30
5831295	Acid Extractable Selenium (Se)	2018/11/12	104	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5831295	Acid Extractable Silver (Ag)	2018/11/12	101	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
5831295	Acid Extractable Thallium (Tl)	2018/11/12	101	75 - 125	102	80 - 120	<0.050	ug/g	6.2	30
5831295	Acid Extractable Uranium (U)	2018/11/12	100	75 - 125	99	80 - 120	<0.050	ug/g	5.9	30
5831295	Acid Extractable Vanadium (V)	2018/11/12	NC	75 - 125	97	80 - 120	<5.0	ug/g	0.60	30
5831295	Acid Extractable Zinc (Zn)	2018/11/12	NC	75 - 125	104	80 - 120	<5.0	ug/g	0.95	30
5832165	Conductivity	2018/11/12			104	90 - 110	<0.002	mS/cm	0.40	10
5832167	Hot Water Ext. Boron (B)	2018/11/12	97	75 - 125	101	75 - 125	<0.050	ug/g	NC	40
5832266	Available (CaCl2) pH	2018/11/12			100	97 - 103			1.6	N/A
5832366	Benzene	2018/11/12	84	60 - 140	104	60 - 140	<0.020	ug/g	NC	50
5832366	Ethylbenzene	2018/11/12	93	60 - 140	109	60 - 140	<0.020	ug/g	NC	50
5832366	F1 (C6-C10) - BTEX	2018/11/12					<10	ug/g	NC	30
5832366	F1 (C6-C10)	2018/11/12	85	60 - 140	92	80 - 120	<10	ug/g	NC	30
5832366	o-Xylene	2018/11/12	92	60 - 140	106	60 - 140	<0.020	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5832366	p+m-Xylene	2018/11/12	93	60 - 140	110	60 - 140	<0.040	ug/g	NC	50
5832366	Toluene	2018/11/12	90	60 - 140	107	60 - 140	<0.020	ug/g	11	50
5832366	Total Xylenes	2018/11/12					<0.040	ug/g	NC	50
5832611	Conductivity	2018/11/13			104	90 - 110	<0.002	mS/cm	2.7	10
5832697	Moisture	2018/11/12							6.9	20
5832898	WAD Cyanide (Free)	2018/11/13	99	75 - 125	96	80 - 120	<0.01	ug/g	NC	35
5846829	Conductivity	2018/11/20			105	90 - 110	<0.002	mS/cm	0.49	10

N/A = Not Applicable

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP	Company Name: WSP	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name:	Contact Name: Michael Wilson	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court, Toronto, ON	Address: 51 Constellation Court, Toronto, ON	Project #: 181-11306-00 PH 220	Rush TAT (Surcharges will be applied)
Phone: 416-798-0065 Fax: 416-798-0518	Phone: 416-798-0065 Fax: 416-798-0518	Site Location: 958-960 East Ave	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: payables.ontario@wsp.com	Email: michael.wilson@wsp.com	Site #:	Date Required:
		Sampled By: B.S	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region ____
[ ] Other (Specify) *
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

LABORATORY USE ONLY

CUSTODY SEAL Y / N: Present: Y; Intact: N
COOLER TEMPERATURES: 5/8/8
COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE): Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Reg 153 PAH	HOLD- DO NOT ANALYZE	COMMENTS
1	BH18-2 SS2	2018/11/05	AM	So	1					X			X		
2	BH18-2 SS3	"	AM		3		X	X	X						
3	QAQC2	"	—		3				X						
4	BH18-3 SS1	2018/11/06	AM		1					X					
5	BH18-3 SS2		AM		1								X		
6	BH18-3 SS3		PM		3		X	X	X						
7	QAQC3	"	—	"	3		X	X							
8															
9															
10															

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Gavin	2018/11/07	14:13	KAITLIN VANCLEUSEN	2018/11/07	14:15

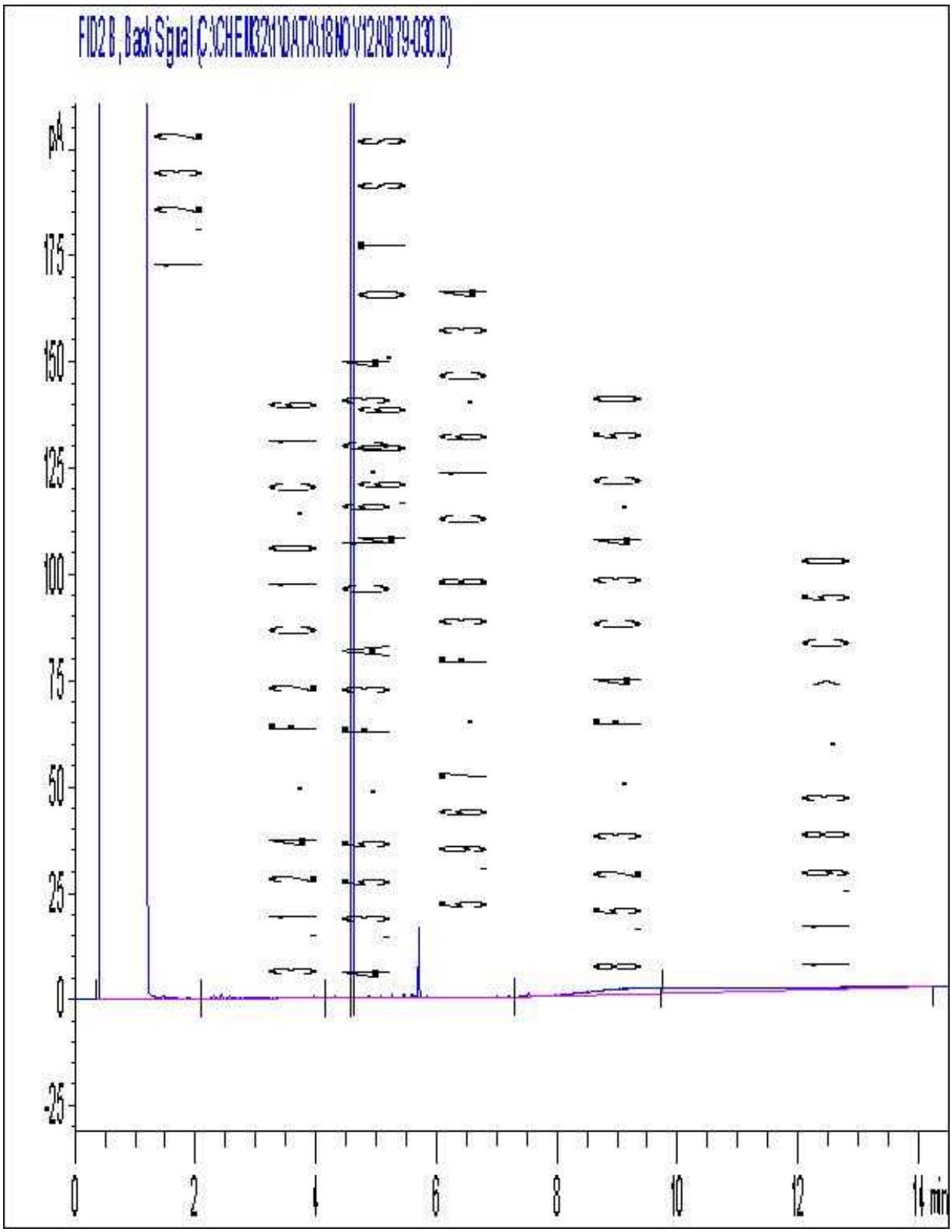
07-Nov-18 14:13
Ashton Gibson
B8T6953

KVG ENV-414

Maxxam Job #: B8T6953
Report Date: 2018/11/21
Maxxam Sample: IFR993

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: BH18-2 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

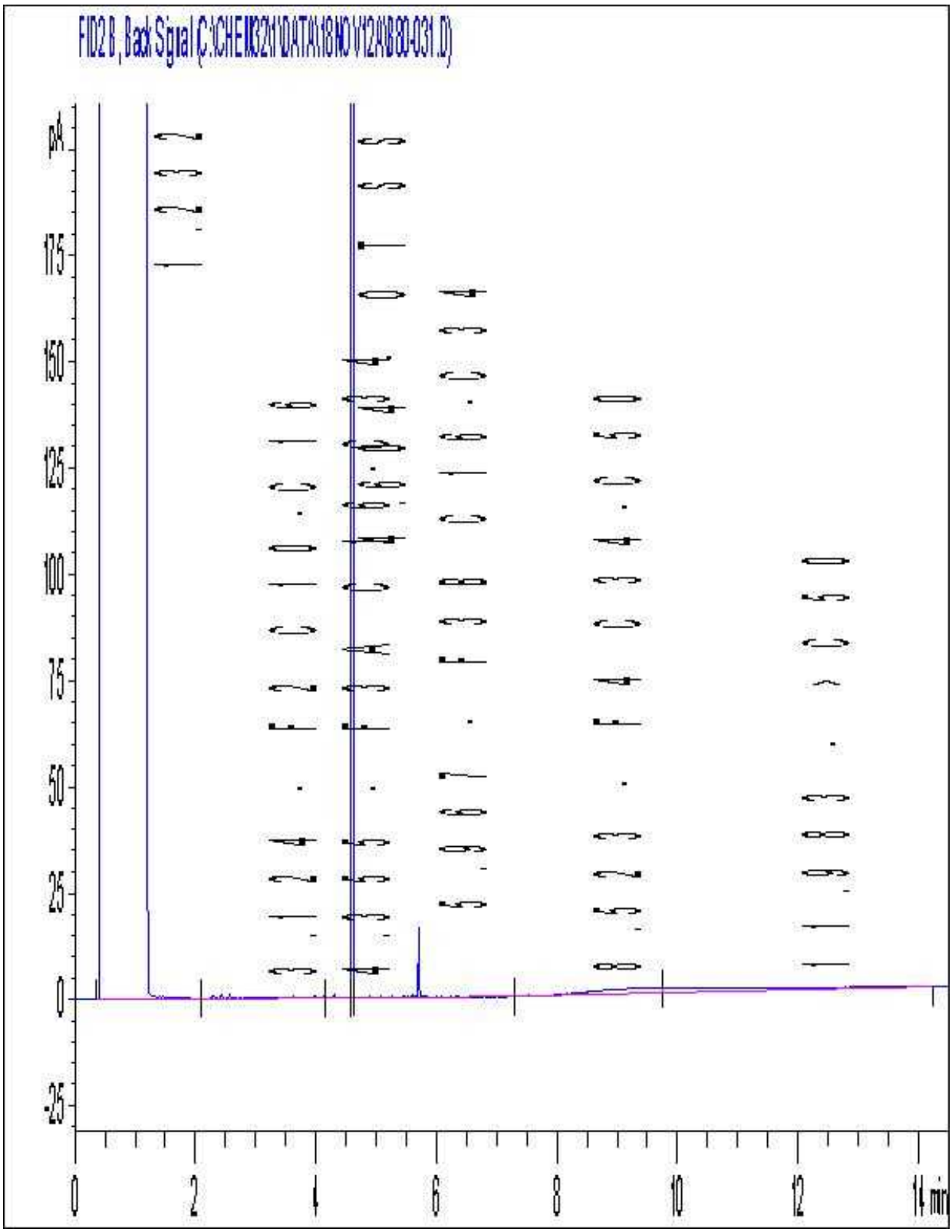


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8T6953
Report Date: 2018/11/21
Maxxam Sample: IFR997

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: BH18-3 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

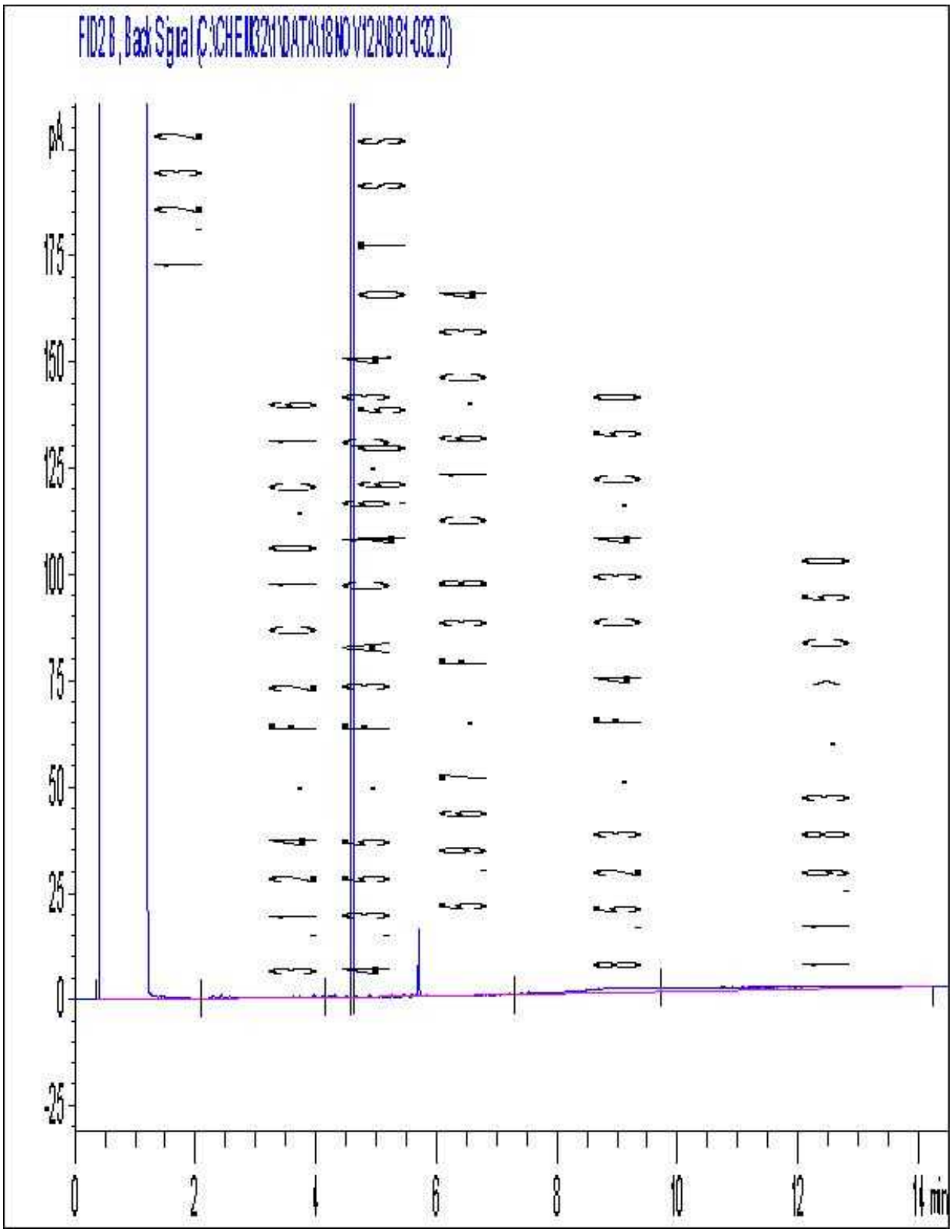


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8T6953
Report Date: 2018/11/21
Maxxam Sample: IFR998

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: QAQC3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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

Maxxam Job #: B8T6953
Report Date: 2018/11/21

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
BH18-2 SS2	IFR992-01	Conductivity	0.7	2.9	0.002	mS/cm
BH18-2 SS2	IFR992-01	Sodium Adsorption Ratio	5.0	24		N/A
BH18-2 SS3	IFR993-01	Conductivity	0.7	2.0	0.002	mS/cm
BH18-2 SS3	IFR993-01-Lab Dup	Conductivity	0.7	2.0	0.002	mS/cm

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: na

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5490455
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U2612
Received: 2018/11/13, 14:33

Sample Matrix: Soil
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Cyanide (WAD) in Leachates	1	N/A	2018/11/15	CAM SOP-00457	OMOE 3015 m
Fluoride by ISE in Leachates	1	2018/11/15	2018/11/15	CAM SOP-00449	SM 23 4500-F- C m
Mercury (TCLP Leachable) (mg/L)	1	N/A	2018/11/15	CAM SOP-00453	EPA 7470A m
Total Metals in TCLP Leachate by ICPMS	1	2018/11/15	2018/11/15	CAM SOP-00447	EPA 6020B m
Nitrate(NO3) + Nitrite(NO2) in Leachate	1	N/A	2018/11/15	CAM SOP-00440	SM 23 4500-NO3I/NO2B
Polychlorinated Biphenyl in Leachate	1	2018/11/16	2018/11/17	CAM SOP-00309	EPA 8082A m
TCLP - % Solids	1	2018/11/14	2018/11/15	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	1	N/A	2018/11/15	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	1	N/A	2018/11/15	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction	1	2018/11/14	2018/11/15	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates	1	2018/11/15	2018/11/15	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.

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

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Maxxam
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Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: na

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5490455
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U2612
Received: 2018/11/13, 14:33

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

Encryption Key

Ashton Gibson
Project Manager
19 Nov 2018 17:49:25

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

O.REG 558 TCLP INORGANICS PACKAGE (SOIL)

Maxxam ID			IGY695		
Sampling Date			2018/11/01		
COC Number			na		
	UNITS	Criteria	COMP-1	RDL	QC Batch
Inorganics					
Leachable Fluoride (F-)	mg/L	150	0.29	0.10	5838922
Leachable WAD Cyanide (Free)	mg/L	20	<0.010	0.010	5838929
Leachable Nitrite (N)	mg/L	-	<0.10	0.10	5838928
Leachable Nitrate (N)	mg/L	-	<1.0	1.0	5838928
Leachable Nitrate + Nitrite (N)	mg/L	1000	<1.0	1.0	5838928
Metals					
Leachable Mercury (Hg)	mg/L	0.1	<0.0010	0.0010	5838795
Leachable Arsenic (As)	mg/L	2.5	<0.2	0.2	5838798
Leachable Barium (Ba)	mg/L	100	0.4	0.2	5838798
Leachable Boron (B)	mg/L	500	0.3	0.1	5838798
Leachable Cadmium (Cd)	mg/L	0.5	<0.05	0.05	5838798
Leachable Chromium (Cr)	mg/L	5	<0.1	0.1	5838798
Leachable Lead (Pb)	mg/L	5	<0.1	0.1	5838798
Leachable Selenium (Se)	mg/L	1	<0.1	0.1	5838798
Leachable Silver (Ag)	mg/L	5	<0.01	0.01	5838798
Leachable Uranium (U)	mg/L	10	<0.01	0.01	5838798

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)

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Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

O.REG 558 TCLP LEACHATE PREPARATION (SOIL)

Maxxam ID		IGY695		
Sampling Date		2018/11/01		
COC Number		na		
	UNITS	**COMP-1**	**RDL**	**QC Batch**
Inorganics				
Final pH	pH	6.18		5837194
Initial pH	pH	8.84		5837194
TCLP - % Solids	%	100	0.2	5837190
TCLP Extraction Fluid	N/A	FLUID 1		5837193

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

O.REG 558 TCLP PCBS (SOIL)

Maxxam ID			IGY695		
Sampling Date			2018/11/01		
COC Number			na		
	UNITS	Criteria	COMP-1	RDL	QC Batch
PCBs					
Leachable Total PCB	ug/L	300	<3.0	3.0	5841386
Surrogate Recovery (%)					
Leachable Decachlorobiphenyl	%	-	70		5841386

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)

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Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

O.REG 558 TCLP VOLATILE ORGANICS HS (SOIL)

Maxxam ID			IGY695		
Sampling Date			2018/11/01		
COC Number			na		
	UNITS	Criteria	COMP-1	RDL	QC Batch
Charge/Prep Analysis					
Amount Extracted (Wet Weight) (g)	N/A	-	23	N/A	5836329
Volatile Organics					
Leachable Benzene	mg/L	0.5	<0.020	0.020	5838479
Leachable Carbon Tetrachloride	mg/L	0.5	<0.020	0.020	5838479
Leachable Chlorobenzene	mg/L	8	<0.020	0.020	5838479
Leachable Chloroform	mg/L	10	<0.020	0.020	5838479
Leachable 1,2-Dichlorobenzene	mg/L	20	<0.050	0.050	5838479
Leachable 1,4-Dichlorobenzene	mg/L	0.5	<0.050	0.050	5838479
Leachable 1,2-Dichloroethane	mg/L	0.5	<0.050	0.050	5838479
Leachable 1,1-Dichloroethylene	mg/L	1.4	<0.020	0.020	5838479
Leachable Methylene Chloride(Dichloromethane)	mg/L	5	<0.20	0.20	5838479
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	200	<1.0	1.0	5838479
Leachable Tetrachloroethylene	mg/L	3	<0.020	0.020	5838479
Leachable Trichloroethylene	mg/L	5	<0.020	0.020	5838479
Leachable Vinyl Chloride	mg/L	0.2	<0.020	0.020	5838479
Surrogate Recovery (%)					
Leachable 4-Bromofluorobenzene	%	-	99		5838479
Leachable D4-1,2-Dichloroethane	%	-	104		5838479
Leachable D8-Toluene	%	-	91		5838479

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)
N/A = Not Applicable

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Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

TEST SUMMARY

Maxxam ID: IGY695
Sample ID: COMP-1
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Cyanide (WAD) in Leachates	SKAL/CN	5838929	N/A	2018/11/15	Christine Pham
Fluoride by ISE in Leachates	ISE	5838922	2018/11/15	2018/11/15	Surinder Rai
Mercury (TCLP Leachable) (mg/L)	CV/AA	5838795	N/A	2018/11/15	Ron Morrison
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	5838798	2018/11/15	2018/11/15	Arefa Dabhad
Nitrate(NO3) + Nitrite(NO2) in Leachate	LACH	5838928	N/A	2018/11/15	Chandra Nandlal
Polychlorinated Biphenyl in Leachate	GC/ECD	5841386	2018/11/16	2018/11/17	Svitlana Shaula
TCLP - % Solids	BAL	5837190	2018/11/14	2018/11/15	Jian (Ken) Wang
TCLP - Extraction Fluid		5837193	N/A	2018/11/15	Jian (Ken) Wang
TCLP - Initial and final pH	PH	5837194	N/A	2018/11/15	Jian (Ken) Wang
TCLP Zero Headspace Extraction		5836329	2018/11/14	2018/11/15	Walt Wang
VOCs in ZHE Leachates	GC/MS	5838479	2018/11/15	2018/11/15	Rebecca McClean

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GENERAL COMMENTS

Results relate only to the items tested.

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B8U2612
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5838479	Leachable 4-Bromofluorobenzene	2018/11/15	104	70 - 130	104	70 - 130	98	%				
5838479	Leachable D4-1,2-Dichloroethane	2018/11/15	100	70 - 130	99	70 - 130	102	%				
5838479	Leachable D8-Toluene	2018/11/15	103	70 - 130	104	70 - 130	92	%				
5841386	Leachable Decachlorobiphenyl	2018/11/16	86	30 - 130	84	30 - 130	83	%				
5838479	Leachable 1,1-Dichloroethylene	2018/11/15	89	70 - 130	89	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable 1,2-Dichlorobenzene	2018/11/15	95	70 - 130	95	70 - 130	<0.050	mg/L	NC	30		
5838479	Leachable 1,2-Dichloroethane	2018/11/15	95	70 - 130	94	70 - 130	<0.050	mg/L	NC	30		
5838479	Leachable 1,4-Dichlorobenzene	2018/11/15	95	70 - 130	96	70 - 130	<0.050	mg/L	NC	30		
5838479	Leachable Benzene	2018/11/15	95	70 - 130	95	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Carbon Tetrachloride	2018/11/15	99	70 - 130	97	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Chlorobenzene	2018/11/15	94	70 - 130	94	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Chloroform	2018/11/15	97	70 - 130	97	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Methyl Ethyl Ketone (2-Butanone)	2018/11/15	102	60 - 140	104	60 - 140	<1.0	mg/L	NC	30		
5838479	Leachable Methylene Chloride(Dichloromethane)	2018/11/15	95	70 - 130	94	70 - 130	<0.20	mg/L	NC	30		
5838479	Leachable Tetrachloroethylene	2018/11/15	96	70 - 130	96	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Trichloroethylene	2018/11/15	95	70 - 130	96	70 - 130	<0.020	mg/L	NC	30		
5838479	Leachable Vinyl Chloride	2018/11/15	91	70 - 130	92	70 - 130	<0.020	mg/L	NC	30		
5838795	Leachable Mercury (Hg)	2018/11/15	96	75 - 125	96	80 - 120	<0.0010	mg/L	NC	25	<0.0010	mg/L
5838798	Leachable Arsenic (As)	2018/11/15	102	80 - 120	98	80 - 120	<0.2	mg/L	NC	35	<0.2	mg/L
5838798	Leachable Barium (Ba)	2018/11/15	103	80 - 120	102	80 - 120	<0.2	mg/L	5.9	35	<0.2	mg/L
5838798	Leachable Boron (B)	2018/11/15	109	80 - 120	103	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
5838798	Leachable Cadmium (Cd)	2018/11/15	100	80 - 120	97	80 - 120	<0.05	mg/L	NC	35	<0.05	mg/L
5838798	Leachable Chromium (Cr)	2018/11/15	94	80 - 120	92	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
5838798	Leachable Lead (Pb)	2018/11/15	95	80 - 120	96	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
5838798	Leachable Selenium (Se)	2018/11/15	100	80 - 120	96	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
5838798	Leachable Silver (Ag)	2018/11/15	95	80 - 120	94	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
5838798	Leachable Uranium (U)	2018/11/15	95	80 - 120	95	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
5838922	Leachable Fluoride (F-)	2018/11/15	105	80 - 120	101	80 - 120	<0.10	mg/L	20	25	<0.10	mg/L
5838928	Leachable Nitrate (N)	2018/11/15	98	80 - 120	99	80 - 120	<1.0	mg/L	NC	25	<1.0	mg/L
5838928	Leachable Nitrate + Nitrite (N)	2018/11/15	100	80 - 120	100	80 - 120	<1.0	mg/L	NC	25	<1.0	mg/L

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U2612
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

			Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
5838928	Leachable Nitrite (N)	2018/11/15	108	80 - 120	102	80 - 120	<0.10	mg/L	NC	25	<0.10	mg/L
5838929	Leachable WAD Cyanide (Free)	2018/11/17	94	80 - 120	103	80 - 120	<0.0020	mg/L	NC	20	<0.0020	mg/L
5841386	Leachable Total PCB	2018/11/16	106	30 - 130	102	30 - 130	<3.0	ug/L	NC	40		

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.

Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.

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

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

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

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

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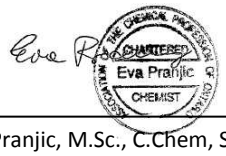
Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Maxxam
A Bureau Veritas Group Company

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP	Company Name: WSP	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name:	Contact Name: Michael Wilson	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court, Toronto, ON	Address: 51 Constellation Court, Toronto, ON	Project #: 181-11306-00 ph 22D	Rush TAT (Surcharges will be applied)
Phone: 416-798-0065 Fax: 416-798-0518	Phone: 416-798-0065 Fax: 416-798-0518	Site Location: 958-960 East Av	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: payables.ontario@wsp.com	Email: michael.wilson@wsp.com	Site #:	Date Required:
		Sampled By: B.S	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [ ] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [ ] Coarse
[ ] Table 3 [ ] Agri/ Other
[ ] Table _____
FOR RSC (PLEASE CIRCLE) (Y)/ N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region
[ ] Other (Specify)
[X] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y)/ N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REFER TO BACK OF COC: REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	TCLP - M+I	TCLP - VOC	TCLP - PCBs					HOLD- DO NOT ANALYZE
1	Comp-1	2018/11/01	-	SO	2								X	X	X					
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

LABORATORY USE ONLY

CUSTODY SEAL (Y)/ N		COOLER TEMPERATURES
Present	Intact	
		0.1 / 2

COOLING MEDIA PRESENT: (Y)/ N

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Gaudon	2018/11/13	2:32PM		2018/11/13	14:33

13-Nov-18 14:33
Ashton Gibson
B8U2612
J_L ENV-937

Maxxam Job #: B8U2612
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

Exceedence Summary Table – Ontario Regulation 558/00

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Your C.O.C. #: na

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5489964
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U1483
Received: 2018/11/12, 13:10

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	3	N/A	2018/11/16	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	2	2018/11/14	2018/11/14	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2018/11/15		EPA 8260C m
Free (WAD) Cyanide	2	2018/11/14	2018/11/15	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2018/11/15	2018/11/15	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2018/11/13	2018/11/16	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2018/11/13	2018/11/14	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	2	2018/11/13	2018/11/13	CAM SOP-00447	EPA 6020B m
Moisture	7	N/A	2018/11/13	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	3	2018/11/15	2018/11/16	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	2	2018/11/15	2018/11/15	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2018/11/19	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2018/11/14	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.

Your Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Your C.O.C. #: na

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5489964
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U1483

Received: 2018/11/12, 13:10

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

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

(1) Soils are reported on a dry weight basis unless otherwise specified.

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

Encryption Key

Ashton Gibson
Project Manager
19 Nov 2018 17:28:39

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IGS370		IGS373		
Sampling Date			2018/11/09		2018/11/09		
COC Number			na		na		
	UNITS	Criteria	BH18-5 SS1	QC Batch	BH18-7 SS1	RDL	QC Batch
Calculated Parameters							
Sodium Adsorption Ratio	N/A	5.0	1.3	5832437	0.49		5832437
Inorganics							
Conductivity	mS/cm	0.7	0.29	5836808	0.13	0.002	5836808
Moisture	%	-	14	5834710	17	1.0	5835373
Available (CaCl2) pH	pH	-	7.55	5838796	6.66		5838796
WAD Cyanide (Free)	ug/g	0.051	<0.01	5836848	<0.01	0.01	5836848
Chromium (VI)	ug/g	8	<0.2	5834106	<0.2	0.2	5834106
Metals							
Hot Water Ext. Boron (B)	ug/g	1.5	0.23	5836059	0.34	0.050	5836059
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	5834504	<0.20	0.20	5834504
Acid Extractable Arsenic (As)	ug/g	18	5.1	5834504	2.7	1.0	5834504
Acid Extractable Barium (Ba)	ug/g	390	56	5834504	54	0.50	5834504
Acid Extractable Beryllium (Be)	ug/g	4	0.74	5834504	0.48	0.20	5834504
Acid Extractable Boron (B)	ug/g	120	9.4	5834504	<5.0	5.0	5834504
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.14	5834504	0.12	0.10	5834504
Acid Extractable Chromium (Cr)	ug/g	160	23	5834504	18	1.0	5834504
Acid Extractable Cobalt (Co)	ug/g	22	14	5834504	7.1	0.10	5834504
Acid Extractable Copper (Cu)	ug/g	140	30	5834504	13	0.50	5834504
Acid Extractable Lead (Pb)	ug/g	120	14	5834504	18	1.0	5834504
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	5834504	<0.50	0.50	5834504
Acid Extractable Nickel (Ni)	ug/g	100	30	5834504	15	0.50	5834504
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	5834504	<0.50	0.50	5834504
Acid Extractable Silver (Ag)	ug/g	20	<0.20	5834504	<0.20	0.20	5834504
Acid Extractable Thallium (Tl)	ug/g	1	0.13	5834504	0.13	0.050	5834504
Acid Extractable Uranium (U)	ug/g	23	0.67	5834504	0.41	0.050	5834504
Acid Extractable Vanadium (V)	ug/g	86	30	5834504	27	5.0	5834504
Acid Extractable Zinc (Zn)	ug/g	340	76	5834504	56	5.0	5834504
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	5834504	<0.050	0.050	5834504

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

O.REG 153 PAHS (SOIL)

Maxxam ID			IGS371	IGS374	IGS376		
Sampling Date			2018/11/09	2018/11/09	2018/11/09		
COC Number			na	na	na		
	UNITS	Criteria	BH18-5 SS2	BH18-7 SS2	QAQC-4	RDL	QC Batch
Inorganics							
Moisture	%	-	28	13	17	1.0	5833888
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	0.99	0.018	<0.0071	0.029	0.0071	5832317
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	7.9	<0.0050	<0.0050	0.0059	0.0050	5839351
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	0.0058	0.0050	5839351
Anthracene	ug/g	0.67	0.013	<0.0050	0.020	0.0050	5839351
Benzo(a)anthracene	ug/g	0.5	0.035	<0.0050	0.063	0.0050	5839351
Benzo(a)pyrene	ug/g	0.3	0.035	<0.0050	0.069	0.0050	5839351
Benzo(b/j)fluoranthene	ug/g	0.78	0.049	<0.0050	0.092	0.0050	5839351
Benzo(g,h,i)perylene	ug/g	6.6	0.025	<0.0050	0.055	0.0050	5839351
Benzo(k)fluoranthene	ug/g	0.78	0.016	<0.0050	0.032	0.0050	5839351
Chrysene	ug/g	7	0.033	<0.0050	0.064	0.0050	5839351
Dibenz(a,h)anthracene	ug/g	0.1	0.0053	<0.0050	0.010	0.0050	5839351
Fluoranthene	ug/g	0.69	0.081	<0.0050	0.14	0.0050	5839351
Fluorene	ug/g	62	0.0060	<0.0050	0.0064	0.0050	5839351
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.026	<0.0050	0.053	0.0050	5839351
1-Methylnaphthalene	ug/g	0.99	0.0091	<0.0050	0.015	0.0050	5839351
2-Methylnaphthalene	ug/g	0.99	0.0085	<0.0050	0.014	0.0050	5839351
Naphthalene	ug/g	0.6	0.0057	<0.0050	0.0089	0.0050	5839351
Phenanthrene	ug/g	6.2	0.056	<0.0050	0.078	0.0050	5839351
Pyrene	ug/g	78	0.066	<0.0050	0.12	0.0050	5839351
Surrogate Recovery (%)							
D10-Anthracene	%	-	94	95	92		5839351
D14-Terphenyl (FS)	%	-	99	97	99		5839351
D8-Acenaphthylene	%	-	93	91	90		5839351

No Fill	No Exceedance
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Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IGS372	IGS375		
Sampling Date			2018/11/09	2018/11/09		
COC Number			na	na		
	UNITS	Criteria	BH18-5 SS3	BH18-7 SS3	RDL	QC Batch
Inorganics						
Moisture	%	-	24	12	1.0	5833888
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	5832254
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.50	<0.50	0.50	5834164
Benzene	ug/g	0.21	<0.020	<0.020	0.020	5834164
Bromodichloromethane	ug/g	13	<0.050	<0.050	0.050	5834164
Bromoform	ug/g	0.27	<0.050	<0.050	0.050	5834164
Bromomethane	ug/g	0.05	<0.050	<0.050	0.050	5834164
Carbon Tetrachloride	ug/g	0.05	<0.050	<0.050	0.050	5834164
Chlorobenzene	ug/g	2.4	<0.050	<0.050	0.050	5834164
Chloroform	ug/g	0.05	<0.050	<0.050	0.050	5834164
Dibromochloromethane	ug/g	9.4	<0.050	<0.050	0.050	5834164
1,2-Dichlorobenzene	ug/g	3.4	<0.050	<0.050	0.050	5834164
1,3-Dichlorobenzene	ug/g	4.8	<0.050	<0.050	0.050	5834164
1,4-Dichlorobenzene	ug/g	0.083	<0.050	<0.050	0.050	5834164
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	<0.050	0.050	5834164
1,1-Dichloroethane	ug/g	3.5	<0.050	<0.050	0.050	5834164
1,2-Dichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5834164
1,1-Dichloroethylene	ug/g	0.05	<0.050	<0.050	0.050	5834164
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	<0.050	0.050	5834164
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	<0.050	0.050	5834164
1,2-Dichloropropane	ug/g	0.05	<0.050	<0.050	0.050	5834164
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	5834164
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	5834164
Ethylbenzene	ug/g	2	<0.020	<0.020	0.020	5834164
Ethylene Dibromide	ug/g	0.05	<0.050	<0.050	0.050	5834164
Hexane	ug/g	2.8	<0.050	<0.050	0.050	5834164

No Fill	No Exceedance
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RDL = Reportable Detection Limit
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Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IGS372	IGS375		
Sampling Date			2018/11/09	2018/11/09		
COC Number			na	na		
	UNITS	Criteria	BH18-5 SS3	BH18-7 SS3	RDL	QC Batch
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	<0.050	0.050	5834164
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	<0.50	0.50	5834164
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	<0.50	0.50	5834164
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	<0.050	0.050	5834164
Styrene	ug/g	0.7	<0.050	<0.050	0.050	5834164
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	<0.050	0.050	5834164
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	<0.050	0.050	5834164
Tetrachloroethylene	ug/g	0.28	<0.050	<0.050	0.050	5834164
Toluene	ug/g	2.3	<0.020	<0.020	0.020	5834164
1,1,1-Trichloroethane	ug/g	0.38	<0.050	<0.050	0.050	5834164
1,1,2-Trichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5834164
Trichloroethylene	ug/g	0.061	<0.050	<0.050	0.050	5834164
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	<0.050	0.050	5834164
Vinyl Chloride	ug/g	0.02	<0.020	<0.020	0.020	5834164
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	5834164
o-Xylene	ug/g	-	<0.020	<0.020	0.020	5834164
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	5834164
F1 (C6-C10)	ug/g	55	<10	<10	10	5834164
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	5834164
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	5834581
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	5834581
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	5834581
Reached Baseline at C50	ug/g	-	Yes	Yes		5834581
Surrogate Recovery (%)						
o-Terphenyl	%	-	97	100		5834581
4-Bromofluorobenzene	%	-	87	87		5834164
D10-o-Xylene	%	-	86	81		5834164
D4-1,2-Dichloroethane	%	-	110	112		5834164

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IGS372	IGS375		
Sampling Date			2018/11/09	2018/11/09		
COC Number			na	na		
	UNITS	**Criteria**	**BH18-5 SS3**	**BH18-7 SS3**	**RDL**	**QC Batch**
D8-Toluene	%	-	93	93		5834164

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IGS370
Sample ID: BH18-5 SS1
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5836059	2018/11/14	2018/11/14	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5836848	2018/11/14	2018/11/15	Louise Harding
Conductivity	AT	5836808	2018/11/15	2018/11/15	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5834504	2018/11/13	2018/11/13	Daniel Teclu
Moisture	BAL	5834710	N/A	2018/11/13	Min Yang
pH CaCl2 EXTRACT	AT	5838796	2018/11/15	2018/11/15	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5832437	N/A	2018/11/19	Automated Statchk

Maxxam ID: IGS371
Sample ID: BH18-5 SS2
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5832317	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5833888	N/A	2018/11/13	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839351	2018/11/15	2018/11/16	Mitesh Raj

Maxxam ID: IGS372
Sample ID: BH18-5 SS3
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5832254	N/A	2018/11/15	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5834581	2018/11/13	2018/11/14	Zhiyue (Frank) Zhu
Moisture	BAL	5833888	N/A	2018/11/13	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5834164	N/A	2018/11/14	Xueming Jiang

Maxxam ID: IGS373
Sample ID: BH18-7 SS1
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5836059	2018/11/14	2018/11/14	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5836848	2018/11/14	2018/11/15	Louise Harding
Conductivity	AT	5836808	2018/11/15	2018/11/15	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5834504	2018/11/13	2018/11/13	Daniel Teclu
Moisture	BAL	5835373	N/A	2018/11/13	Min Yang
pH CaCl2 EXTRACT	AT	5838796	2018/11/15	2018/11/15	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5832437	N/A	2018/11/19	Automated Statchk

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IGS374
Sample ID: BH18-7 SS2
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5832317	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5833888	N/A	2018/11/13	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839351	2018/11/15	2018/11/16	Mitesh Raj

Maxxam ID: IGS375
Sample ID: BH18-7 SS3
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5832254	N/A	2018/11/15	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5834581	2018/11/13	2018/11/14	Zhiyue (Frank) Zhu
Moisture	BAL	5833888	N/A	2018/11/13	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5834164	N/A	2018/11/14	Xueming Jiang

Maxxam ID: IGS376
Sample ID: QAQC-4
Matrix: Soil

Collected: 2018/11/09
Shipped:
Received: 2018/11/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5832317	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5833888	N/A	2018/11/13	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839351	2018/11/15	2018/11/16	Mitesh Raj

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

GENERAL COMMENTS

Custody seal was present and intact

Results relate only to the items tested.

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5834164	4-Bromofluorobenzene	2018/11/14	96	60 - 140	97	60 - 140	89	%		
5834164	D10-o-Xylene	2018/11/14	94	60 - 130	98	60 - 130	81	%		
5834164	D4-1,2-Dichloroethane	2018/11/14	102	60 - 140	105	60 - 140	109	%		
5834164	D8-Toluene	2018/11/14	106	60 - 140	107	60 - 140	95	%		
5834581	o-Terphenyl	2018/11/14	96	60 - 130	97	60 - 130	95	%		
5839351	D10-Anthracene	2018/11/16	90	50 - 130	94	50 - 130	94	%		
5839351	D14-Terphenyl (FS)	2018/11/16	92	50 - 130	97	50 - 130	95	%		
5839351	D8-Acenaphthylene	2018/11/16	84	50 - 130	93	50 - 130	90	%		
5833888	Moisture	2018/11/13							4.2	20
5834106	Chromium (VI)	2018/11/16	43 (1)	70 - 130	90	80 - 120	<0.2	ug/g	NC	35
5834164	1,1,1,2-Tetrachloroethane	2018/11/14	101	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5834164	1,1,1-Trichloroethane	2018/11/14	107	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5834164	1,1,2,2-Tetrachloroethane	2018/11/14	95	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5834164	1,1,2-Trichloroethane	2018/11/14	99	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5834164	1,1-Dichloroethane	2018/11/14	106	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5834164	1,1-Dichloroethylene	2018/11/14	105	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5834164	1,2-Dichlorobenzene	2018/11/14	96	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5834164	1,2-Dichloroethane	2018/11/14	101	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5834164	1,2-Dichloropropane	2018/11/14	101	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5834164	1,3-Dichlorobenzene	2018/11/14	97	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5834164	1,4-Dichlorobenzene	2018/11/14	95	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5834164	Acetone (2-Propanone)	2018/11/14	95	60 - 140	95	60 - 140	<0.50	ug/g	NC	50
5834164	Benzene	2018/11/14	101	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
5834164	Bromodichloromethane	2018/11/14	101	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5834164	Bromoform	2018/11/14	92	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5834164	Bromomethane	2018/11/14	103	60 - 140	98	60 - 140	<0.050	ug/g	NC	50
5834164	Carbon Tetrachloride	2018/11/14	107	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5834164	Chlorobenzene	2018/11/14	95	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5834164	Chloroform	2018/11/14	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5834164	cis-1,2-Dichloroethylene	2018/11/14	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5834164	cis-1,3-Dichloropropene	2018/11/14	86	60 - 140	84	60 - 130	<0.030	ug/g	NC	50

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5834164	Dibromochloromethane	2018/11/14	96	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5834164	Dichlorodifluoromethane (FREON 12)	2018/11/14	116	60 - 140	110	60 - 140	<0.050	ug/g	NC	50
5834164	Ethylbenzene	2018/11/14	93	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
5834164	Ethylene Dibromide	2018/11/14	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5834164	F1 (C6-C10) - BTEX	2018/11/14					<10	ug/g	NC	30
5834164	F1 (C6-C10)	2018/11/14	111	60 - 140	100	80 - 120	<10	ug/g	NC	30
5834164	Hexane	2018/11/14	105	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5834164	Methyl Ethyl Ketone (2-Butanone)	2018/11/14	89	60 - 140	89	60 - 140	<0.50	ug/g	NC	50
5834164	Methyl Isobutyl Ketone	2018/11/14	84	60 - 140	85	60 - 130	<0.50	ug/g	NC	50
5834164	Methyl t-butyl ether (MTBE)	2018/11/14	92	60 - 140	89	60 - 130	<0.050	ug/g	NC	50
5834164	Methylene Chloride(Dichloromethane)	2018/11/14	95	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5834164	o-Xylene	2018/11/14	93	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
5834164	p+m-Xylene	2018/11/14	88	60 - 140	86	60 - 130	<0.020	ug/g	NC	50
5834164	Styrene	2018/11/14	93	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5834164	Tetrachloroethylene	2018/11/14	106	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5834164	Toluene	2018/11/14	100	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
5834164	Total Xylenes	2018/11/14					<0.020	ug/g	NC	50
5834164	trans-1,2-Dichloroethylene	2018/11/14	104	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5834164	trans-1,3-Dichloropropene	2018/11/14	93	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
5834164	Trichloroethylene	2018/11/14	101	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5834164	Trichlorofluoromethane (FREON 11)	2018/11/14	112	60 - 140	105	60 - 130	<0.050	ug/g	NC	50
5834164	Vinyl Chloride	2018/11/14	110	60 - 140	104	60 - 130	<0.020	ug/g	NC	50
5834504	Acid Extractable Antimony (Sb)	2018/11/14	114	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Arsenic (As)	2018/11/14	110	75 - 125	101	80 - 120	<1.0	ug/g	7.6	30
5834504	Acid Extractable Barium (Ba)	2018/11/14	93	75 - 125	99	80 - 120	<0.50	ug/g	6.0	30
5834504	Acid Extractable Beryllium (Be)	2018/11/14	111	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Boron (B)	2018/11/14	110	75 - 125	95	80 - 120	<5.0	ug/g	5.4	30
5834504	Acid Extractable Cadmium (Cd)	2018/11/14	108	75 - 125	97	80 - 120	<0.10	ug/g	4.3	30
5834504	Acid Extractable Chromium (Cr)	2018/11/14	116	75 - 125	99	80 - 120	<1.0	ug/g	8.0	30
5834504	Acid Extractable Cobalt (Co)	2018/11/14	112	75 - 125	101	80 - 120	<0.10	ug/g	5.6	30
5834504	Acid Extractable Copper (Cu)	2018/11/14	108	75 - 125	102	80 - 120	<0.50	ug/g	2.8	30

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QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5834504	Acid Extractable Lead (Pb)	2018/11/14	108	75 - 125	100	80 - 120	<1.0	ug/g	2.8	30
5834504	Acid Extractable Mercury (Hg)	2018/11/14	112	75 - 125	102	80 - 120	<0.050	ug/g	NC	30
5834504	Acid Extractable Molybdenum (Mo)	2018/11/14	113	75 - 125	100	80 - 120	<0.50	ug/g	9.4	30
5834504	Acid Extractable Nickel (Ni)	2018/11/14	115	75 - 125	103	80 - 120	<0.50	ug/g	4.1	30
5834504	Acid Extractable Selenium (Se)	2018/11/14	110	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5834504	Acid Extractable Silver (Ag)	2018/11/14	109	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Thallium (Tl)	2018/11/14	106	75 - 125	99	80 - 120	<0.050	ug/g	9.8	30
5834504	Acid Extractable Uranium (U)	2018/11/14	107	75 - 125	99	80 - 120	<0.050	ug/g	4.3	30
5834504	Acid Extractable Vanadium (V)	2018/11/14	116	75 - 125	102	80 - 120	<5.0	ug/g	0.45	30
5834504	Acid Extractable Zinc (Zn)	2018/11/14	NC	75 - 125	99	80 - 120	<5.0	ug/g	7.3	30
5834581	F2 (C10-C16 Hydrocarbons)	2018/11/14	110	50 - 130	111	80 - 120	<10	ug/g	NC	30
5834581	F3 (C16-C34 Hydrocarbons)	2018/11/14	105	50 - 130	106	80 - 120	<50	ug/g	NC	30
5834581	F4 (C34-C50 Hydrocarbons)	2018/11/14	103	50 - 130	103	80 - 120	<50	ug/g	NC	30
5834710	Moisture	2018/11/13							0	20
5835373	Moisture	2018/11/13							4.0	20
5836059	Hot Water Ext. Boron (B)	2018/11/14	99	75 - 125	95	75 - 125	<0.050	ug/g	NC	40
5836808	Conductivity	2018/11/15			105	90 - 110	<0.002	mS/cm	0.41	10
5836848	WAD Cyanide (Free)	2018/11/15	97	75 - 125	98	80 - 120	<0.01	ug/g	NC	35
5838796	Available (CaCl2) pH	2018/11/15			100	97 - 103			0	N/A
5839351	1-Methylnaphthalene	2018/11/16	119	50 - 130	124	50 - 130	<0.0050	ug/g	NC	40
5839351	2-Methylnaphthalene	2018/11/16	104	50 - 130	108	50 - 130	<0.0050	ug/g	NC	40
5839351	Acenaphthene	2018/11/16	94	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
5839351	Acenaphthylene	2018/11/16	90	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5839351	Anthracene	2018/11/16	99	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
5839351	Benzo(a)anthracene	2018/11/16	99	50 - 130	100	50 - 130	<0.0050	ug/g		
5839351	Benzo(a)pyrene	2018/11/16	108	50 - 130	110	50 - 130	<0.0050	ug/g		
5839351	Benzo(b/j)fluoranthene	2018/11/16	113	50 - 130	116	50 - 130	<0.0050	ug/g		
5839351	Benzo(g,h,i)perylene	2018/11/16	111	50 - 130	113	50 - 130	<0.0050	ug/g		
5839351	Benzo(k)fluoranthene	2018/11/16	98	50 - 130	101	50 - 130	<0.0050	ug/g		
5839351	Chrysene	2018/11/16	109	50 - 130	110	50 - 130	<0.0050	ug/g		
5839351	Dibenz(a,h)anthracene	2018/11/16	100	50 - 130	102	50 - 130	<0.0050	ug/g		

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Maxxam Job #: B8U1483
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5839351	Fluoranthene	2018/11/16	96	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
5839351	Fluorene	2018/11/16	96	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
5839351	Indeno(1,2,3-cd)pyrene	2018/11/16	110	50 - 130	112	50 - 130	<0.0050	ug/g		
5839351	Naphthalene	2018/11/16	92	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5839351	Phenanthrene	2018/11/16	97	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
5839351	Pyrene	2018/11/16	103	50 - 130	103	50 - 130	<0.0050	ug/g		

N/A = Not Applicable

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

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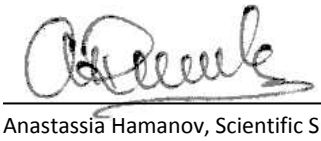
Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP	Company Name: WSP	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name:	Contact Name: Michael Wilson	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court, Toronto, ON	Address: 51 Constellation Court, Toronto, ON	Project #: 181-11306-00 ph220	Rush TAT (Surcharges will be applied)
Phone: 416-798-0065 Fax: 416-798-0518	Phone: 416-798-0065 Fax: 416-798-0518	Site Location: 958-960 East Ave	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: payables.ontario@wsp.com	Email: michael.wilson@wsp.com	Site #:	Date Required:
		Sampled By: BS	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region ____
[ ] Other (Specify) ____
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Rg153 PAH								HOLD- DO NOT ANALYZE
										REFER TO BACK OF COC											
1	BH18-5 SS1	2018/11/09	AM	SO	1					X											
2	BH18-5 SS2		AM		1								X								
3	BH18-5 SS3		AM		3		X	X	X												
4	BH18-7 SS1		PM		1					X											
5	BH18-7 SS2		PM		1								X								
6	BH18-7 SS3		PM		3		X	X	X												
7	QAQC-4		—										X								
8																					
9																					
10																					

LABORATORY USE ONLY

CUSTODY SEAL (Y) N		COOLER TEMPERATURES
Present	Intact	
		3 | 7 | 2

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

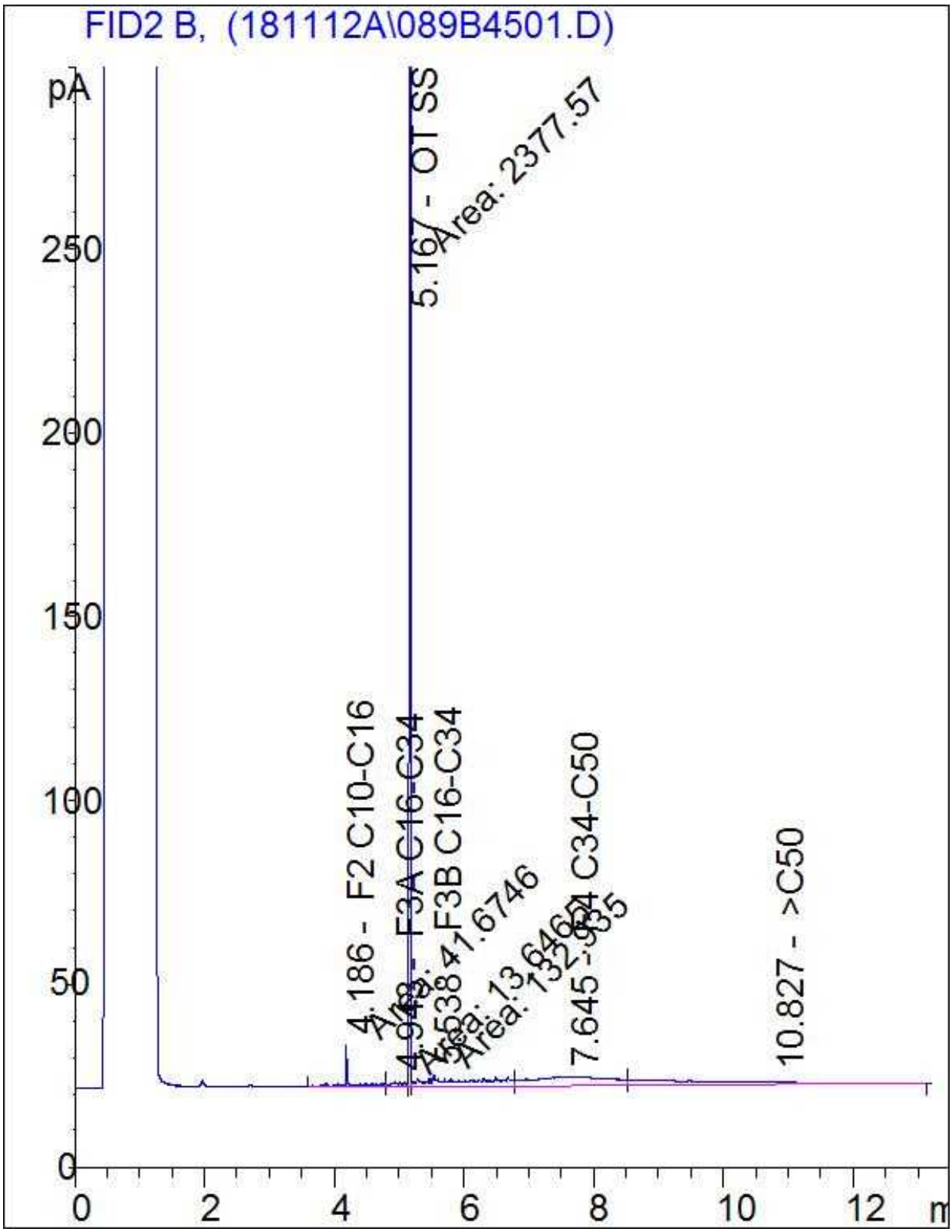
RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Glavin	2018/11/12	1:10PM		2018/11/12	13:10

12-Nov-18 13:10
Ashton Gibson
B8U1483
MAF ENV-705

Maxxam Job #: B8U1483
Report Date: 2018/11/19
Maxxam Sample: IGS372

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Project name: 958- 960 EAST AVE
Client ID: BH18-5 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

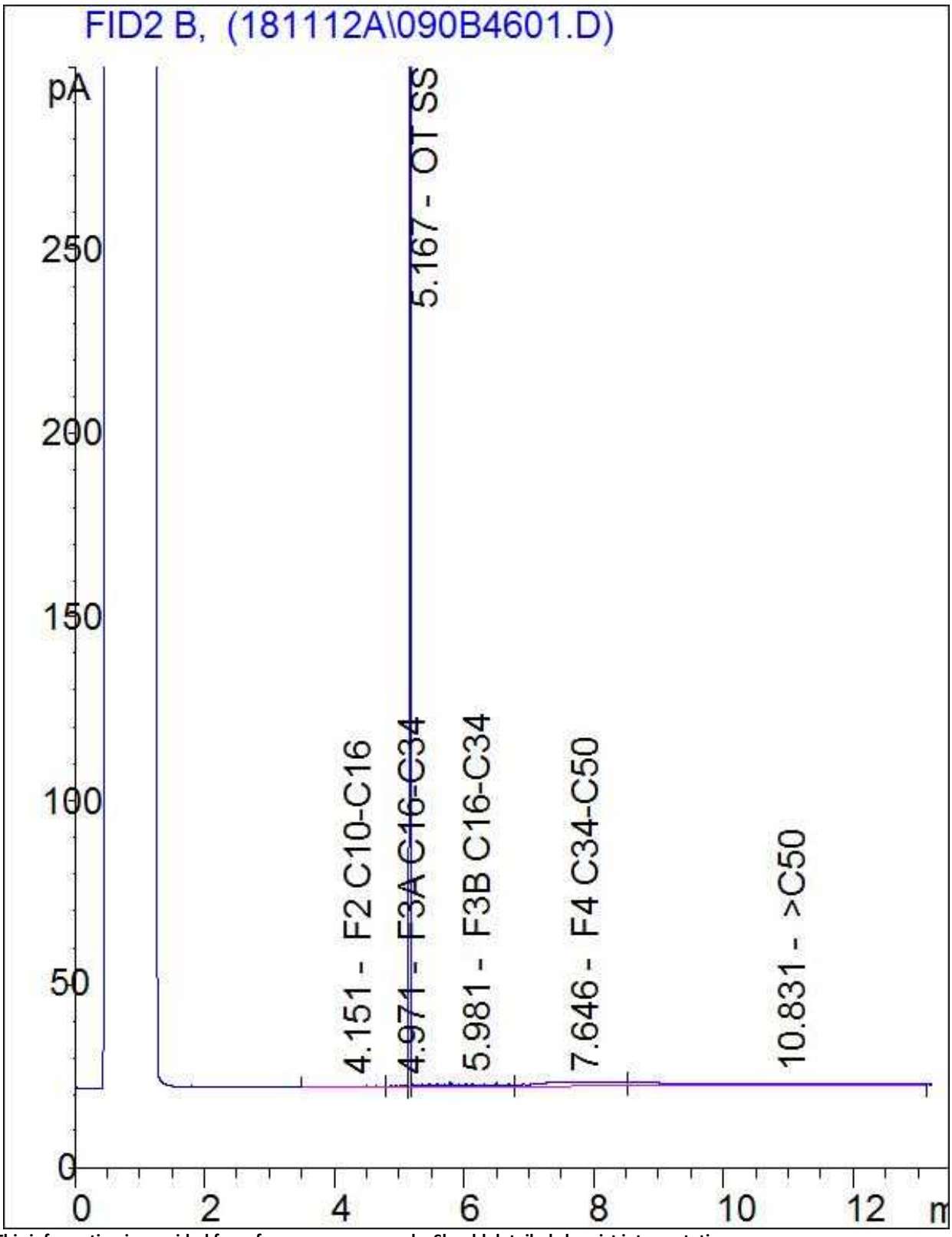


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8U1483
Report Date: 2018/11/19
Maxxam Sample: IGS375

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Project name: 958- 960 EAST AVE
Client ID: BH18-7 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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

Maxxam Job #: B8U1483
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181- 11306- 00 PH 220
Site Location: 958- 960 EAST AVE
Sampler Initials: BS

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Your Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Your C.O.C. #: n\a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5489950
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U0291
Received: 2018/11/09, 15:14

Sample Matrix: Soil
Samples Received: 9

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	3	N/A	2018/11/16	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	2	2018/11/13	2018/11/13	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2018/11/14	2018/11/14	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	3	N/A	2018/11/14		EPA 8260C m
Free (WAD) Cyanide	3	2018/11/14	2018/11/15	CAM SOP-00457	OMOE E3015 m
Conductivity	3	2018/11/15	2018/11/15	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	3	2018/11/13	2018/11/16	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	3	2018/11/12	2018/11/14	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	3	2018/11/13	2018/11/13	CAM SOP-00447	EPA 6020B m
Moisture	8	N/A	2018/11/12	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture	1	N/A	2018/11/13	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	3	2018/11/15	2018/11/15	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	3	2018/11/15	2018/11/15	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	3	N/A	2018/11/19	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	3	N/A	2018/11/13	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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

Maxxam
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Your Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Your C.O.C. #: n\a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/19
Report #: R5489950
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8U0291
Received: 2018/11/09, 15:14

dilution methods.
Results relate to samples tested. When sampling is not conducted by Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

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

Encryption Key

Ashton Gibson
Project Manager
19 Nov 2018 17:26:40

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IGK826		IGK829	IGK832		
Sampling Date			2018/11/08		2018/11/08	2018/11/08		
COC Number			n\a		n\a	n\a		
	UNITS	Criteria	BH18-4 SS1	QC Batch	BH18-6-SS1	BH18-8 SS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	1.5	5831230	0.24	0.29		5831230
Inorganics								
Conductivity	mS/cm	0.7	0.32	5836808	0.19	0.12	0.002	5836808
Moisture	%	-	14	5833195	10	14	1.0	5833195
Available (CaCl2) pH	pH	-	7.55	5838796	7.66	6.69		5838796
WAD Cyanide (Free)	ug/g	0.051	0.01	5836879	<0.01	<0.01	0.01	5836879
Chromium (VI)	ug/g	8	<0.2	5834106	<0.2	0.3	0.2	5834106
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.45	5836059	0.17	0.28	0.050	5834907
Acid Extractable Antimony (Sb)	ug/g	7.5	0.86	5834504	<0.20	0.26	0.20	5834504
Acid Extractable Arsenic (As)	ug/g	18	4.9	5834504	4.2	3.6	1.0	5834504
Acid Extractable Barium (Ba)	ug/g	390	69	5834504	47	80	0.50	5834504
Acid Extractable Beryllium (Be)	ug/g	4	0.50	5834504	0.58	0.70	0.20	5834504
Acid Extractable Boron (B)	ug/g	120	5.3	5834504	6.2	<5.0	5.0	5834504
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.25	5834504	0.17	0.14	0.10	5834504
Acid Extractable Chromium (Cr)	ug/g	160	16	5834504	17	21	1.0	5834504
Acid Extractable Cobalt (Co)	ug/g	22	6.4	5834504	9.9	9.3	0.10	5834504
Acid Extractable Copper (Cu)	ug/g	140	22	5834504	23	20	0.50	5834504
Acid Extractable Lead (Pb)	ug/g	120	35	5834504	17	19	1.0	5834504
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	5834504	<0.50	<0.50	0.50	5834504
Acid Extractable Nickel (Ni)	ug/g	100	13	5834504	21	23	0.50	5834504
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	5834504	<0.50	<0.50	0.50	5834504
Acid Extractable Silver (Ag)	ug/g	20	<0.20	5834504	<0.20	<0.20	0.20	5834504
Acid Extractable Thallium (Tl)	ug/g	1	0.10	5834504	0.11	0.14	0.050	5834504
Acid Extractable Uranium (U)	ug/g	23	0.53	5834504	0.51	0.50	0.050	5834504
Acid Extractable Vanadium (V)	ug/g	86	25	5834504	26	31	5.0	5834504
Acid Extractable Zinc (Zn)	ug/g	340	79	5834504	57	63	5.0	5834504
Acid Extractable Mercury (Hg)	ug/g	0.27	0.058	5834504	<0.050	<0.050	0.050	5834504

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

O.REG 153 PAHS (SOIL)

Maxxam ID			IGK827		IGK830		IGK833		
Sampling Date			2018/11/08		2018/11/08		2018/11/08		
COC Number			n\a		n\a		n\a		
	UNITS	Criteria	BH18-4 SS2	QC Batch	BH18-6 SS2	QC Batch	BH18-8 SS2	RDL	QC Batch
Inorganics									
Moisture	%	-	18	5832454	11	5834574	11	1.0	5832454
Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	0.99	0.016	5831228	<0.0071	5834127	<0.0071	0.0071	5831228
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	7.9	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Acenaphthylene	ug/g	0.15	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Anthracene	ug/g	0.67	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Benzo(a)anthracene	ug/g	0.5	0.011	5839505	0.011	5839505	<0.0050	0.0050	5839505
Benzo(a)pyrene	ug/g	0.3	0.0095	5839505	0.011	5839505	<0.0050	0.0050	5839505
Benzo(b/j)fluoranthene	ug/g	0.78	0.014	5839505	0.017	5839505	<0.0050	0.0050	5839505
Benzo(g,h,i)perylene	ug/g	6.6	0.0071	5839505	0.0081	5839505	<0.0050	0.0050	5839505
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Chrysene	ug/g	7	0.0097	5839505	0.010	5839505	<0.0050	0.0050	5839505
Dibenz(a,h)anthracene	ug/g	0.1	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Fluoranthene	ug/g	0.69	0.021	5839505	0.024	5839505	<0.0050	0.0050	5839505
Fluorene	ug/g	62	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Indeno(1,2,3-cd)pyrene	ug/g	0.38	0.0077	5839505	0.0084	5839505	<0.0050	0.0050	5839505
1-Methylnaphthalene	ug/g	0.99	0.0061	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
2-Methylnaphthalene	ug/g	0.99	0.010	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Naphthalene	ug/g	0.6	<0.0050	5839505	<0.0050	5839505	<0.0050	0.0050	5839505
Phenanthrene	ug/g	6.2	0.012	5839505	0.012	5839505	<0.0050	0.0050	5839505
Pyrene	ug/g	78	0.020	5839505	0.020	5839505	<0.0050	0.0050	5839505
Surrogate Recovery (%)									
D10-Anthracene	%	-	97	5839505	99	5839505	95		5839505
D14-Terphenyl (FS)	%	-	101	5839505	98	5839505	95		5839505
D8-Acenaphthylene	%	-	102	5839505	101	5839505	97		5839505

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IGK828	IGK831	IGK834		
Sampling Date			2018/11/08	2018/11/08	2018/11/08		
COC Number			n\a	n\a	n\a		
	UNITS	Criteria	BH18-4 SS3	BH18-6 SS3	BH18-8 SS3	RDL	QC Batch
Inorganics							
Moisture	%	-	22	13	12	1.0	5832454
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5831229
Volatile Organics							
Acetone (2-Propanone)	ug/g	16	<0.50	<0.50	<0.50	0.50	5832773
Benzene	ug/g	0.21	<0.020	<0.020	<0.020	0.020	5832773
Bromodichloromethane	ug/g	13	<0.050	<0.050	<0.050	0.050	5832773
Bromoform	ug/g	0.27	<0.050	<0.050	<0.050	0.050	5832773
Bromomethane	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Carbon Tetrachloride	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Chlorobenzene	ug/g	2.4	<0.050	<0.050	<0.050	0.050	5832773
Chloroform	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Dibromochloromethane	ug/g	9.4	<0.050	<0.050	<0.050	0.050	5832773
1,2-Dichlorobenzene	ug/g	3.4	<0.050	<0.050	<0.050	0.050	5832773
1,3-Dichlorobenzene	ug/g	4.8	<0.050	<0.050	<0.050	0.050	5832773
1,4-Dichlorobenzene	ug/g	0.083	<0.050	<0.050	<0.050	0.050	5832773
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	<0.050	<0.050	0.050	5832773
1,1-Dichloroethane	ug/g	3.5	<0.050	<0.050	<0.050	0.050	5832773
1,2-Dichloroethane	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
1,1-Dichloroethylene	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	<0.050	<0.050	0.050	5832773
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	<0.050	<0.050	0.050	5832773
1,2-Dichloropropane	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	<0.030	0.030	5832773
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	<0.040	0.040	5832773
Ethylbenzene	ug/g	2	<0.020	<0.020	<0.020	0.020	5832773
Ethylene Dibromide	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Hexane	ug/g	2.8	<0.050	<0.050	<0.050	0.050	5832773
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	<0.050	<0.050	0.050	5832773

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IGK828	IGK831	IGK834		
Sampling Date			2018/11/08	2018/11/08	2018/11/08		
COC Number			n\a	n\a	n\a		
	UNITS	Criteria	BH18-4 SS3	BH18-6 SS3	BH18-8 SS3	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	<0.50	<0.50	0.50	5832773
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	<0.50	<0.50	0.50	5832773
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	<0.050	<0.050	0.050	5832773
Styrene	ug/g	0.7	<0.050	<0.050	<0.050	0.050	5832773
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	<0.050	<0.050	0.050	5832773
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Tetrachloroethylene	ug/g	0.28	<0.050	<0.050	<0.050	0.050	5832773
Toluene	ug/g	2.3	<0.020	<0.020	<0.020	0.020	5832773
1,1,1-Trichloroethane	ug/g	0.38	<0.050	<0.050	<0.050	0.050	5832773
1,1,2-Trichloroethane	ug/g	0.05	<0.050	<0.050	<0.050	0.050	5832773
Trichloroethylene	ug/g	0.061	<0.050	<0.050	<0.050	0.050	5832773
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	<0.050	<0.050	0.050	5832773
Vinyl Chloride	ug/g	0.02	<0.020	<0.020	<0.020	0.020	5832773
p+m-Xylene	ug/g	-	<0.020	<0.020	<0.020	0.020	5832773
o-Xylene	ug/g	-	<0.020	<0.020	<0.020	0.020	5832773
Total Xylenes	ug/g	3.1	<0.020	<0.020	<0.020	0.020	5832773
F1 (C6-C10)	ug/g	55	<10	<10	<10	10	5832773
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	<10	10	5832773
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	98	56	<10	<10	10	5832702
F3 (C16-C34 Hydrocarbons)	ug/g	300	83	<50	<50	50	5832702
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	<50	50	5832702
Reached Baseline at C50	ug/g	-	Yes	Yes	Yes		5832702
Surrogate Recovery (%)							
o-Terphenyl	%	-	103	102	101		5832702
4-Bromofluorobenzene	%	-	90	90	90		5832773
D10-o-Xylene	%	-	100	94	93		5832773
D4-1,2-Dichloroethane	%	-	105	102	103		5832773
D8-Toluene	%	-	95	97	97		5832773

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IGK826 **Collected:** 2018/11/08
Sample ID: BH18-4 SS1 **Shipped:**
Matrix: Soil **Received:** 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5836059	2018/11/14	2018/11/14	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5836879	2018/11/14	2018/11/15	Louise Harding
Conductivity	AT	5836808	2018/11/15	2018/11/15	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5834504	2018/11/13	2018/11/13	Daniel Teclu
Moisture	BAL	5833195	N/A	2018/11/12	Min Yang
pH CaCl2 EXTRACT	AT	5838796	2018/11/15	2018/11/15	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5831230	N/A	2018/11/19	Automated Statchk

Maxxam ID: IGK826 Dup **Collected:** 2018/11/08
Sample ID: BH18-4 SS1 **Shipped:**
Matrix: Soil **Received:** 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz

Maxxam ID: IGK827 **Collected:** 2018/11/08
Sample ID: BH18-4 SS2 **Shipped:**
Matrix: Soil **Received:** 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5831228	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5832454	N/A	2018/11/12	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839505	2018/11/15	2018/11/15	Mitesh Raj

Maxxam ID: IGK828 **Collected:** 2018/11/08
Sample ID: BH18-4 SS3 **Shipped:**
Matrix: Soil **Received:** 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5831229	N/A	2018/11/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5832702	2018/11/12	2018/11/14	Atoosa Keshavarz
Moisture	BAL	5832454	N/A	2018/11/12	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5832773	N/A	2018/11/13	Manpreet Sarao

Maxxam ID: IGK829 **Collected:** 2018/11/08
Sample ID: BH18-6-SS1 **Shipped:**
Matrix: Soil **Received:** 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5834907	2018/11/13	2018/11/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5836879	2018/11/14	2018/11/15	Louise Harding
Conductivity	AT	5836808	2018/11/15	2018/11/15	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5834504	2018/11/13	2018/11/13	Daniel Teclu

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IGK829
Sample ID: BH18-6-SS1
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5833195	N/A	2018/11/12	Min Yang
pH CaCl2 EXTRACT	AT	5838796	2018/11/15	2018/11/15	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5831230	N/A	2018/11/19	Automated Statchk

Maxxam ID: IGK830
Sample ID: BH18-6 SS2
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5834127	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5834574	N/A	2018/11/13	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839505	2018/11/15	2018/11/15	Mitesh Raj

Maxxam ID: IGK831
Sample ID: BH18-6 SS3
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5831229	N/A	2018/11/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5832702	2018/11/12	2018/11/14	Atoosa Keshavarz
Moisture	BAL	5832454	N/A	2018/11/12	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5832773	N/A	2018/11/13	Manpreet Sarao

Maxxam ID: IGK832
Sample ID: BH18-8 SS1
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5834907	2018/11/13	2018/11/13	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5836879	2018/11/14	2018/11/15	Louise Harding
Conductivity	AT	5836808	2018/11/15	2018/11/15	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5834106	2018/11/13	2018/11/16	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5834504	2018/11/13	2018/11/13	Daniel Teclu
Moisture	BAL	5833195	N/A	2018/11/12	Min Yang
pH CaCl2 EXTRACT	AT	5838796	2018/11/15	2018/11/15	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5831230	N/A	2018/11/19	Automated Statchk

Maxxam ID: IGK833
Sample ID: BH18-8 SS2
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5831228	N/A	2018/11/16	Automated Statchk
Moisture	BAL	5832454	N/A	2018/11/12	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5839505	2018/11/15	2018/11/15	Mitesh Raj

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IGK834
Sample ID: BH18-8 SS3
Matrix: Soil

Collected: 2018/11/08
Shipped:
Received: 2018/11/09

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5831229	N/A	2018/11/14	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5832702	2018/11/12	2018/11/14	Atoosa Keshavarz
Moisture	BAL	5832454	N/A	2018/11/12	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5832773	N/A	2018/11/13	Manpreet Sarao

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GENERAL COMMENTS

Sample IGK829 [BH18-6-SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Sample IGK832 [BH18-8 SS1] : SAR Analysis: Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.

Results relate only to the items tested.

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Maxxam Job #: B8U0291
Report Date: 2018/11/19

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5832702	o-Terphenyl	2018/11/13	102	60 - 130	99	60 - 130	107	%		
5832773	4-Bromofluorobenzene	2018/11/13	96	60 - 140	97	60 - 140	91	%		
5832773	D10-o-Xylene	2018/11/13	95	60 - 130	100	60 - 130	86	%		
5832773	D4-1,2-Dichloroethane	2018/11/13	97	60 - 140	98	60 - 140	99	%		
5832773	D8-Toluene	2018/11/13	104	60 - 140	104	60 - 140	97	%		
5839505	D10-Anthracene	2018/11/15	99	50 - 130	96	50 - 130	95	%		
5839505	D14-Terphenyl (FS)	2018/11/15	106	50 - 130	104	50 - 130	97	%		
5839505	D8-Acenaphthylene	2018/11/15	104	50 - 130	96	50 - 130	93	%		
5832454	Moisture	2018/11/12							0	20
5832702	F2 (C10-C16 Hydrocarbons)	2018/11/14	111	50 - 130	107	80 - 120	<10	ug/g	NC	30
5832702	F3 (C16-C34 Hydrocarbons)	2018/11/14	112	50 - 130	105	80 - 120	<50	ug/g	NC	30
5832702	F4 (C34-C50 Hydrocarbons)	2018/11/14	111	50 - 130	104	80 - 120	<50	ug/g	NC	30
5832773	1,1,1,2-Tetrachloroethane	2018/11/13	100	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5832773	1,1,1-Trichloroethane	2018/11/13	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5832773	1,1,2,2-Tetrachloroethane	2018/11/13	95	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5832773	1,1,2-Trichloroethane	2018/11/13	92	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5832773	1,1-Dichloroethane	2018/11/13	96	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5832773	1,1-Dichloroethylene	2018/11/13	91	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5832773	1,2-Dichlorobenzene	2018/11/13	95	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5832773	1,2-Dichloroethane	2018/11/13	91	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5832773	1,2-Dichloropropane	2018/11/13	96	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5832773	1,3-Dichlorobenzene	2018/11/13	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5832773	1,4-Dichlorobenzene	2018/11/13	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5832773	Acetone (2-Propanone)	2018/11/13	86	60 - 140	90	60 - 140	<0.50	ug/g	NC	50
5832773	Benzene	2018/11/13	93	60 - 140	94	60 - 130	<0.020	ug/g	NC	50
5832773	Bromodichloromethane	2018/11/13	95	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5832773	Bromoform	2018/11/13	95	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5832773	Bromomethane	2018/11/13	99	60 - 140	102	60 - 140	<0.050	ug/g	NC	50
5832773	Carbon Tetrachloride	2018/11/13	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5832773	Chlorobenzene	2018/11/13	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5832773	Chloroform	2018/11/13	95	60 - 140	96	60 - 130	<0.050	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5832773	cis-1,2-Dichloroethylene	2018/11/13	91	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5832773	cis-1,3-Dichloropropene	2018/11/13	86	60 - 140	86	60 - 130	<0.030	ug/g	NC	50
5832773	Dibromochloromethane	2018/11/13	100	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5832773	Dichlorodifluoromethane (FREON 12)	2018/11/13	85	60 - 140	95	60 - 140	<0.050	ug/g	NC	50
5832773	Ethylbenzene	2018/11/13	90	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
5832773	Ethylene Dibromide	2018/11/13	95	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5832773	F1 (C6-C10) - BTEX	2018/11/13					<10	ug/g	NC	30
5832773	F1 (C6-C10)	2018/11/13	91	60 - 140	99	80 - 120	<10	ug/g	NC	30
5832773	Hexane	2018/11/13	88	60 - 140	89	60 - 130	<0.050	ug/g	NC	50
5832773	Methyl Ethyl Ketone (2-Butanone)	2018/11/13	86	60 - 140	90	60 - 140	<0.50	ug/g	NC	50
5832773	Methyl Isobutyl Ketone	2018/11/13	80	60 - 140	84	60 - 130	<0.50	ug/g	NC	50
5832773	Methyl t-butyl ether (MTBE)	2018/11/13	85	60 - 140	88	60 - 130	<0.050	ug/g	NC	50
5832773	Methylene Chloride(Dichloromethane)	2018/11/13	101	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5832773	o-Xylene	2018/11/13	89	60 - 140	88	60 - 130	<0.020	ug/g	NC	50
5832773	p+m-Xylene	2018/11/13	86	60 - 140	85	60 - 130	<0.020	ug/g	NC	50
5832773	Styrene	2018/11/13	91	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5832773	Tetrachloroethylene	2018/11/13	104	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5832773	Toluene	2018/11/13	91	60 - 140	90	60 - 130	<0.020	ug/g	NC	50
5832773	Total Xylenes	2018/11/13					<0.020	ug/g	NC	50
5832773	trans-1,2-Dichloroethylene	2018/11/13	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5832773	trans-1,3-Dichloropropene	2018/11/13	91	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
5832773	Trichloroethylene	2018/11/13	98	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5832773	Trichlorofluoromethane (FREON 11)	2018/11/13	99	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5832773	Vinyl Chloride	2018/11/13	95	60 - 140	98	60 - 130	<0.020	ug/g	NC	50
5833195	Moisture	2018/11/12							1.0	20
5834106	Chromium (VI)	2018/11/16	43 (1)	70 - 130	90	80 - 120	<0.2	ug/g	NC	35
5834504	Acid Extractable Antimony (Sb)	2018/11/14	114	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Arsenic (As)	2018/11/14	110	75 - 125	101	80 - 120	<1.0	ug/g	7.6	30
5834504	Acid Extractable Barium (Ba)	2018/11/14	93	75 - 125	99	80 - 120	<0.50	ug/g	6.0	30
5834504	Acid Extractable Beryllium (Be)	2018/11/14	111	75 - 125	99	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Boron (B)	2018/11/14	110	75 - 125	95	80 - 120	<5.0	ug/g	5.4	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5834504	Acid Extractable Cadmium (Cd)	2018/11/14	108	75 - 125	97	80 - 120	<0.10	ug/g	4.3	30
5834504	Acid Extractable Chromium (Cr)	2018/11/14	116	75 - 125	99	80 - 120	<1.0	ug/g	8.0	30
5834504	Acid Extractable Cobalt (Co)	2018/11/14	112	75 - 125	101	80 - 120	<0.10	ug/g	5.6	30
5834504	Acid Extractable Copper (Cu)	2018/11/14	108	75 - 125	102	80 - 120	<0.50	ug/g	2.8	30
5834504	Acid Extractable Lead (Pb)	2018/11/14	108	75 - 125	100	80 - 120	<1.0	ug/g	2.8	30
5834504	Acid Extractable Mercury (Hg)	2018/11/14	112	75 - 125	102	80 - 120	<0.050	ug/g	NC	30
5834504	Acid Extractable Molybdenum (Mo)	2018/11/14	113	75 - 125	100	80 - 120	<0.50	ug/g	9.4	30
5834504	Acid Extractable Nickel (Ni)	2018/11/14	115	75 - 125	103	80 - 120	<0.50	ug/g	4.1	30
5834504	Acid Extractable Selenium (Se)	2018/11/14	110	75 - 125	102	80 - 120	<0.50	ug/g	NC	30
5834504	Acid Extractable Silver (Ag)	2018/11/14	109	75 - 125	101	80 - 120	<0.20	ug/g	NC	30
5834504	Acid Extractable Thallium (Tl)	2018/11/14	106	75 - 125	99	80 - 120	<0.050	ug/g	9.8	30
5834504	Acid Extractable Uranium (U)	2018/11/14	107	75 - 125	99	80 - 120	<0.050	ug/g	4.3	30
5834504	Acid Extractable Vanadium (V)	2018/11/14	116	75 - 125	102	80 - 120	<5.0	ug/g	0.45	30
5834504	Acid Extractable Zinc (Zn)	2018/11/14	NC	75 - 125	99	80 - 120	<5.0	ug/g	7.3	30
5834574	Moisture	2018/11/13							8.7	20
5834907	Hot Water Ext. Boron (B)	2018/11/13	94	75 - 125	95	75 - 125	<0.050	ug/g	1.2	40
5836059	Hot Water Ext. Boron (B)	2018/11/14	99	75 - 125	95	75 - 125	<0.050	ug/g	NC	40
5836808	Conductivity	2018/11/15			105	90 - 110	<0.002	mS/cm	0.41	10
5836879	WAD Cyanide (Free)	2018/11/15	94	75 - 125	97	80 - 120	<0.01	ug/g	NC	35
5838796	Available (CaCl2) pH	2018/11/15			100	97 - 103			0	N/A
5839505	1-Methylnaphthalene	2018/11/15	112	50 - 130	104	50 - 130	<0.0050	ug/g	NC	40
5839505	2-Methylnaphthalene	2018/11/15	102	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
5839505	Acenaphthene	2018/11/15	100	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
5839505	Acenaphthylene	2018/11/15	98	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5839505	Anthracene	2018/11/15	93	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5839505	Benzo(a)anthracene	2018/11/15	99	50 - 130	101	50 - 130	<0.0050	ug/g		
5839505	Benzo(a)pyrene	2018/11/15	92	50 - 130	101	50 - 130	<0.0050	ug/g		
5839505	Benzo(b/j)fluoranthene	2018/11/15	111	50 - 130	108	50 - 130	<0.0050	ug/g		
5839505	Benzo(g,h,i)perylene	2018/11/15	99	50 - 130	101	50 - 130	<0.0050	ug/g		
5839505	Benzo(k)fluoranthene	2018/11/15	109	50 - 130	89	50 - 130	<0.0050	ug/g		
5839505	Chrysene	2018/11/15	100	50 - 130	100	50 - 130	<0.0050	ug/g		

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5839505	Dibenz(a,h)anthracene	2018/11/15	113	50 - 130	95	50 - 130	<0.0050	ug/g		
5839505	Fluoranthene	2018/11/15	102	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
5839505	Fluorene	2018/11/15	98	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5839505	Indeno(1,2,3-cd)pyrene	2018/11/15	102	50 - 130	104	50 - 130	<0.0050	ug/g		
5839505	Naphthalene	2018/11/15	98	50 - 130	90	50 - 130	<0.0050	ug/g	NC	40
5839505	Phenanthrene	2018/11/15	101	50 - 130	97	50 - 130	<0.0050	ug/g	NC	40
5839505	Pyrene	2018/11/15	111	50 - 130	106	50 - 130	<0.0050	ug/g		

N/A = Not Applicable

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

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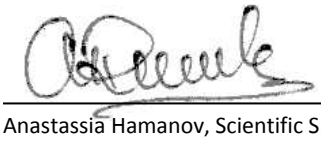
Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Invoice Information

Company Name: WSP
Contact Name:
Address: 51 Constellation Court, Toronto, ON
Phone: 416-798-0065 Fax: 416-798-0518
Email: payables.ontario@wsp.com

Report Information (if differs from invoice)

Company Name: WSP
Contact Name: Michael Wilson
Address: 51 Constellation Court, Toronto, ON
Phone: 416-798-0065 Fax: 416-798-0518
Email: michael.wilson@wsp.com

Project Information (where applicable)

Quotation #:
P.O. #/ AFE#:
Project #: 181-11306-00 Ph 220
Site Location: 958-960 East Ave
Site #:
Sampled By: BS

Turnaround Time (TAT) Required

[X] Regular TAT (5-7 days) Most analyses

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)
[ ] 1 Day [ ] 2 Days [ ] 3-4 Days

Date Required:
Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153

[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table _____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations

[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region
[ ] Other (Specify)
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Reg153 PAHs	HOLD- DO NOT ANALYZE
										REFER TO BACK OF COC				
1	BH18-4 SS1	2018/11/08	AM	SO	1					X				
2	BH18-4 SS2	"	AM	"	1								X	
3	BH 18-4 SS3	"	AM	"	3		X	X	X					
4	BH 18-6 SS1	"	PM	"	1					X				
5	BH 18-6 SS2	"	PM	"	1									
6	BH 18-6 SS3	"	PM	"	3		X	X	X					
7	BH 18-8 SS1	2018/11/08	AM	"	1					X				
8	BH 18-8 SS2	"	AM	"	1								X	
9	BH 18-8 SS3	"	AM	"	3		X	X	X					
10														

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
N	N	4.1 3.5

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

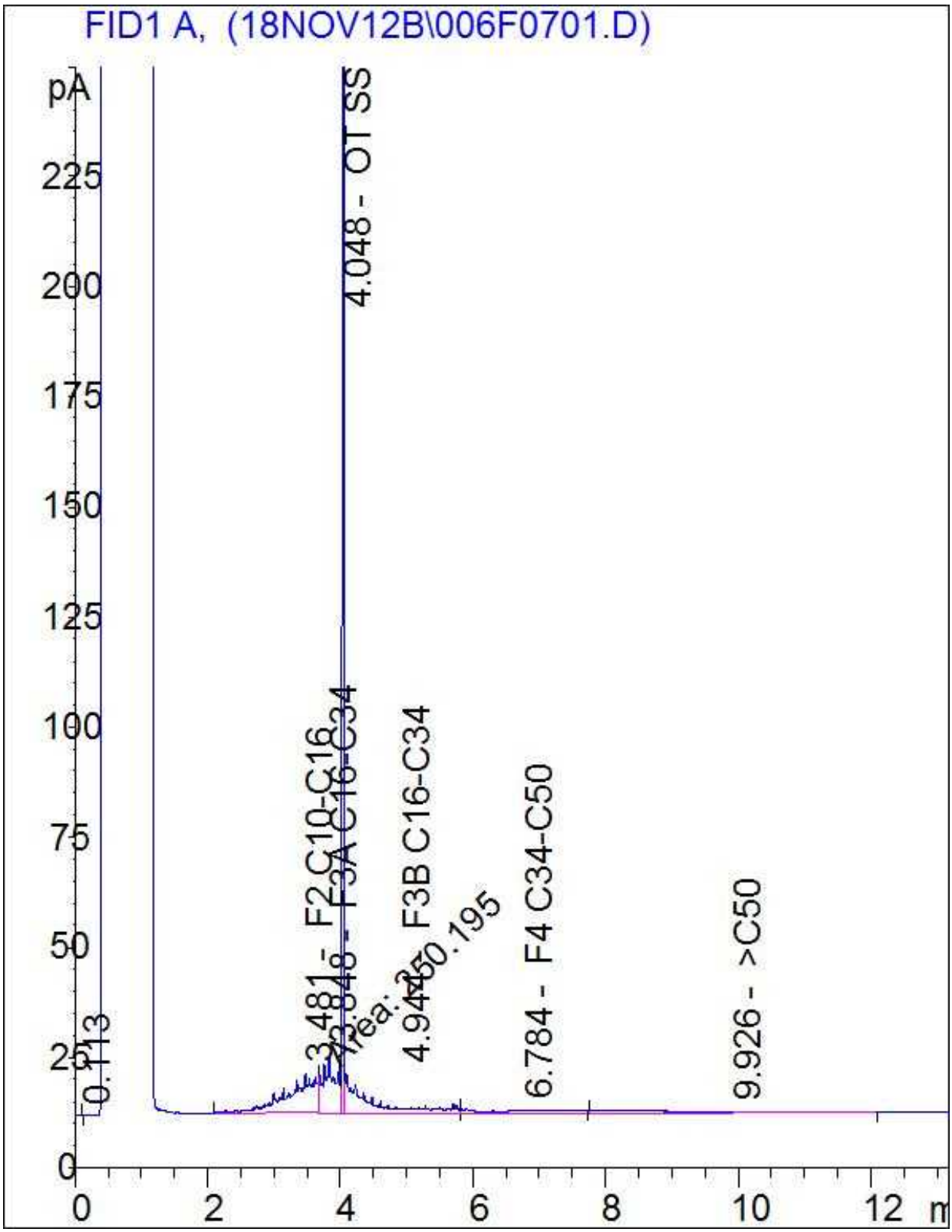
RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Gavin	2018/11/09	3:13PM		2018/11/09	15:14

09-Nov-18 15:14
Ashton Gibson
B8U0291
GUS ENV-1396

Maxxam Job #: B8U0291
Report Date: 2018/11/19
Maxxam Sample: IGK828

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Project name: 958-960 EAST AVE
Client ID: BH18-4 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

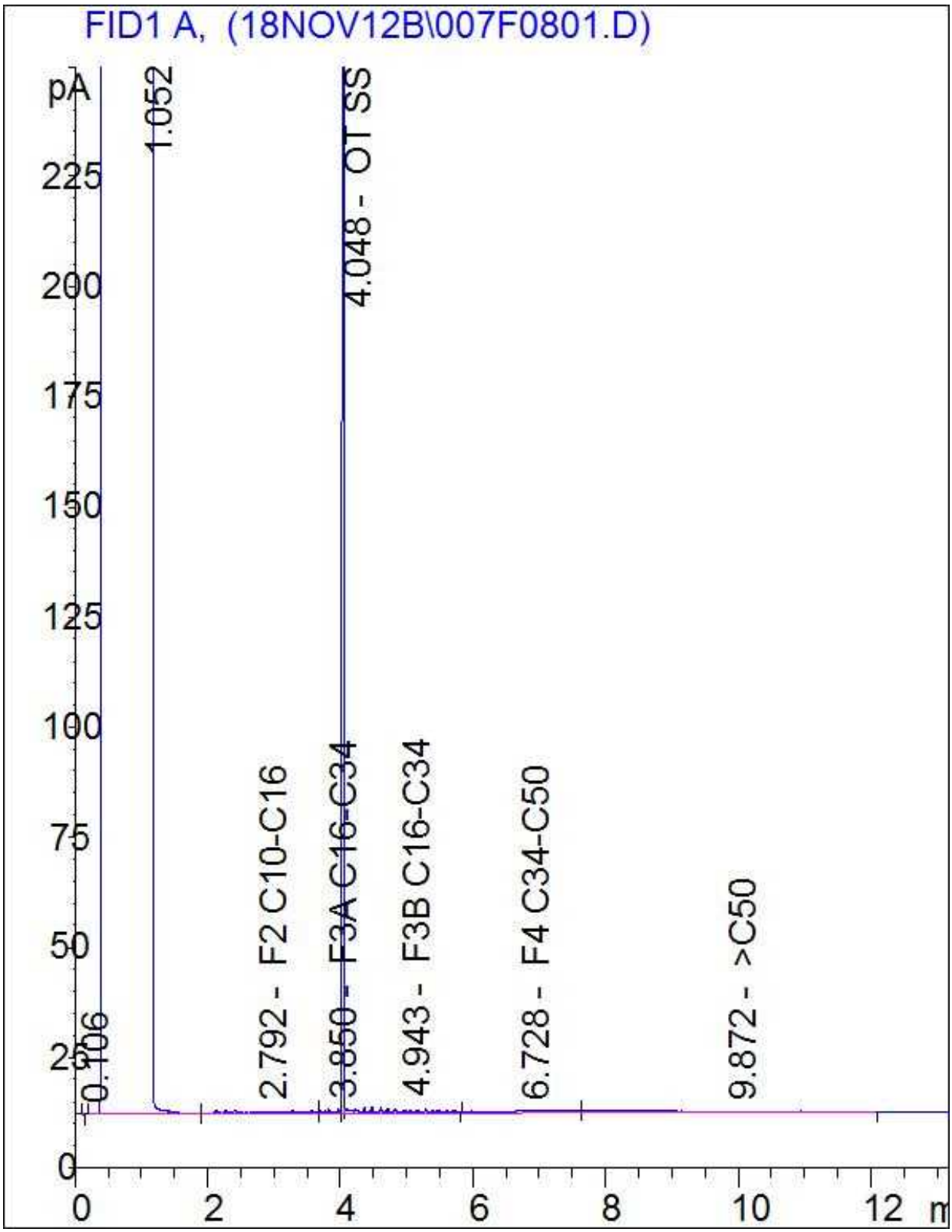


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8U0291
Report Date: 2018/11/19
Maxxam Sample: IGK831

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Project name: 958-960 EAST AVE
Client ID: BH18-6 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

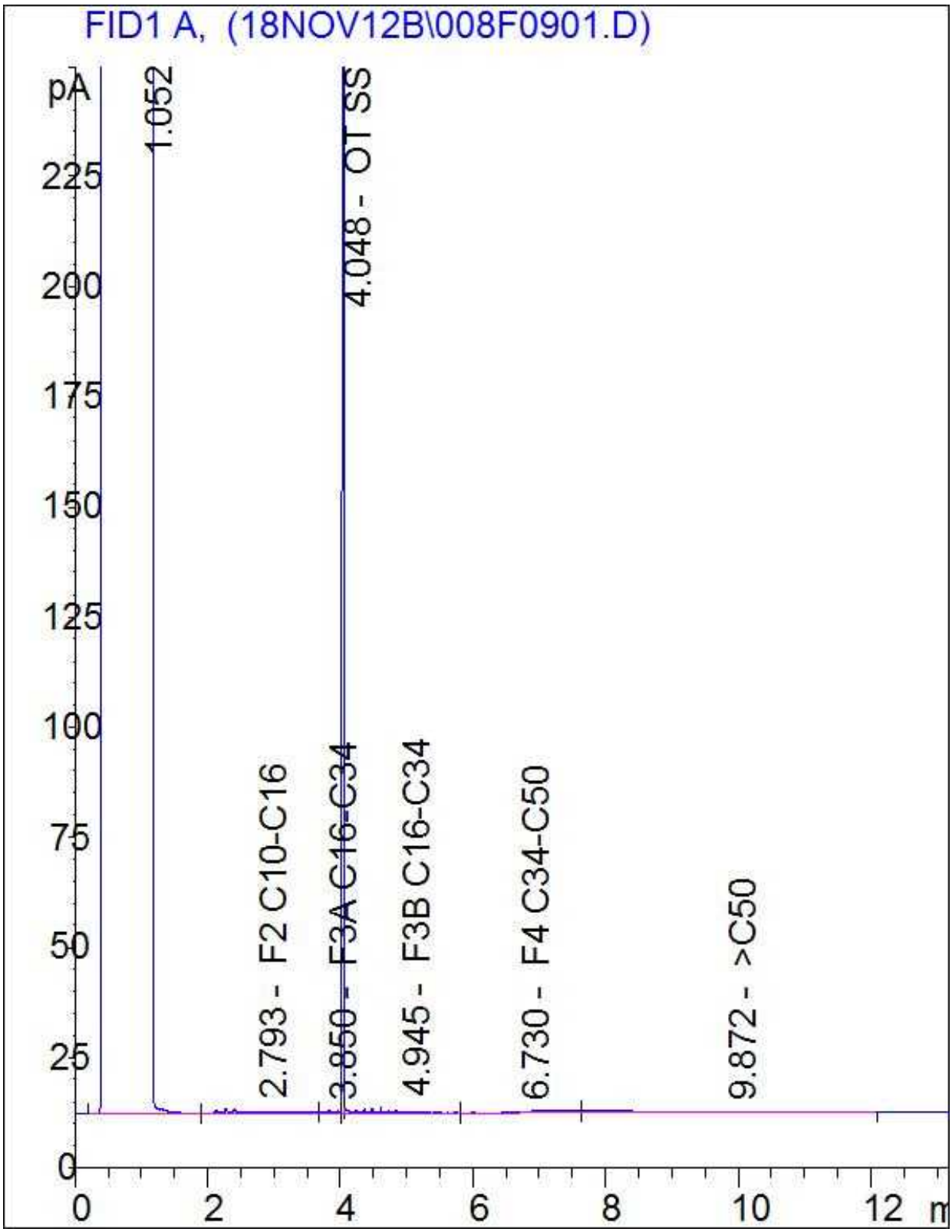


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8U0291
Report Date: 2018/11/19
Maxxam Sample: IGK834

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Project name: 958-960 EAST AVE
Client ID: BH18-8 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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

Maxxam Job #: B8U0291
Report Date: 2018/11/19

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE
Sampler Initials: BS

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE
Your C.O.C. #: N/A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/14
Report #: R5484218
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8T6953
Received: 2018/11/07, 14:13

Sample Matrix: Soil
Samples Received: 7

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	2	N/A	2018/11/13	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2018/11/10	2018/11/12	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	1	2018/11/12	2018/11/12	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2018/11/09		EPA 8260C m
1,3-Dichloropropene Sum	1	N/A	2018/11/13		EPA 8260C m
Free (WAD) Cyanide	1	2018/11/09	2018/11/12	CAM SOP-00457	OMOE E3015 m
Free (WAD) Cyanide	1	2018/11/12	2018/11/13	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2018/11/12	2018/11/12	CAM SOP-00414	OMOE E3530 v1 m
Conductivity	1	2018/11/13	2018/11/13	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2018/11/09	2018/11/13	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (2)	1	N/A	2018/11/12	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (3)	3	2018/11/09	2018/11/13	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	2	2018/11/10	2018/11/12	CAM SOP-00447	EPA 6020B m
Moisture	6	N/A	2018/11/08	CAM SOP-00445	Carter 2nd ed 51.2 m
Moisture	1	N/A	2018/11/12	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	2	2018/11/09	2018/11/10	CAM SOP-00318	EPA 8270D m
pH CaCl2 EXTRACT	2	2018/11/12	2018/11/12	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/13	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/14	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2018/11/08	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs	1	N/A	2018/11/09	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Soil	1	N/A	2018/11/12	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE
Your C.O.C. #: N/A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/14
Report #: R5484218
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8T6953
Received: 2018/11/07, 14:13

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

(1) Soils are reported on a dry weight basis unless otherwise specified.
(2) No lab extraction date is given for F1BTEX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.
(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Maxxam conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key

Ashton Gibson
Project Manager
14 Nov 2018 17:06:33

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IFR992			IFR995		
Sampling Date			2018/11/05			2018/11/06		
COC Number			N/A			N/A		
	UNITS	Criteria	BH18-2 SS2	RDL	QC Batch	BH18-3 SS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	5.0	**24**		5824976	2.2		5824976
Inorganics								
Conductivity	mS/cm	0.7	**2.9**	0.002	5832611	0.26	0.002	5832165
Moisture	%	-				16	1.0	5832697
Available (CaCl2) pH	pH	-	7.76		5832266	7.66		5832266
WAD Cyanide (Free)	ug/g	0.051	0.01	0.01	5829714	<0.01	0.01	5832898
Chromium (VI)	ug/g	8	<0.2	0.2	5829630	<0.2	0.2	5829630
Metals								
Hot Water Ext. Boron (B)	ug/g	1.5	0.27	0.050	5832167	0.10	0.050	5831223
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	5831295	0.21	0.20	5831295
Acid Extractable Arsenic (As)	ug/g	18	4.9	1.0	5831295	5.0	1.0	5831295
Acid Extractable Barium (Ba)	ug/g	390	140	0.50	5831295	69	0.50	5831295
Acid Extractable Beryllium (Be)	ug/g	4	1.2	0.20	5831295	0.75	0.20	5831295
Acid Extractable Boron (B)	ug/g	120	10	5.0	5831295	7.3	5.0	5831295
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.15	0.10	5831295	0.21	0.10	5831295
Acid Extractable Chromium (Cr)	ug/g	160	35	1.0	5831295	21	1.0	5831295
Acid Extractable Cobalt (Co)	ug/g	22	16	0.10	5831295	10	0.10	5831295
Acid Extractable Copper (Cu)	ug/g	140	31	0.50	5831295	24	0.50	5831295
Acid Extractable Lead (Pb)	ug/g	120	13	1.0	5831295	23	1.0	5831295
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	5831295	<0.50	0.50	5831295
Acid Extractable Nickel (Ni)	ug/g	100	36	0.50	5831295	21	0.50	5831295
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	5831295	<0.50	0.50	5831295
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	5831295	<0.20	0.20	5831295
Acid Extractable Thallium (Tl)	ug/g	1	0.20	0.050	5831295	0.14	0.050	5831295
Acid Extractable Uranium (U)	ug/g	23	0.63	0.050	5831295	0.61	0.050	5831295
Acid Extractable Vanadium (V)	ug/g	86	47	5.0	5831295	31	5.0	5831295
Acid Extractable Zinc (Zn)	ug/g	340	79	5.0	5831295	76	5.0	5831295
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	5831295	<0.050	0.050	5831295

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

O.REG 153 PAHS (SOIL)

Maxxam ID			IFR992		IFR996		
Sampling Date			2018/11/05		2018/11/06		
COC Number			N/A		N/A		
	UNITS	Criteria	BH18-2 SS2	QC Batch	BH18-3 SS2	RDL	QC Batch
Inorganics							
Moisture	%	-	23	5828728	22	1.0	5828411
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	0.99	<0.0071	5824630	<0.0071	0.0071	5824630
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	7.9	<0.0050	5829805	<0.0050	0.0050	5829805
Acenaphthylene	ug/g	0.15	<0.0050	5829805	<0.0050	0.0050	5829805
Anthracene	ug/g	0.67	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(a)anthracene	ug/g	0.5	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(a)pyrene	ug/g	0.3	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(b/j)fluoranthene	ug/g	0.78	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(g,h,i)perylene	ug/g	6.6	<0.0050	5829805	<0.0050	0.0050	5829805
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	5829805	<0.0050	0.0050	5829805
Chrysene	ug/g	7	<0.0050	5829805	<0.0050	0.0050	5829805
Dibenz(a,h)anthracene	ug/g	0.1	<0.0050	5829805	<0.0050	0.0050	5829805
Fluoranthene	ug/g	0.69	<0.0050	5829805	<0.0050	0.0050	5829805
Fluorene	ug/g	62	<0.0050	5829805	<0.0050	0.0050	5829805
Indeno(1,2,3-cd)pyrene	ug/g	0.38	<0.0050	5829805	<0.0050	0.0050	5829805
1-Methylnaphthalene	ug/g	0.99	<0.0050	5829805	<0.0050	0.0050	5829805
2-Methylnaphthalene	ug/g	0.99	<0.0050	5829805	<0.0050	0.0050	5829805
Naphthalene	ug/g	0.6	<0.0050	5829805	<0.0050	0.0050	5829805
Phenanthrene	ug/g	6.2	<0.0050	5829805	<0.0050	0.0050	5829805
Pyrene	ug/g	78	<0.0050	5829805	<0.0050	0.0050	5829805
Surrogate Recovery (%)							
D10-Anthracene	%	-	96	5829805	93		5829805
D14-Terphenyl (FS)	%	-	84	5829805	91		5829805
D8-Acenaphthylene	%	-	84	5829805	86		5829805

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID			IFR998		
Sampling Date			2018/11/06		
COC Number			N/A		
	UNITS	Criteria	QAQC3	RDL	QC Batch
Inorganics					
Moisture	%	-	14	1.0	5828260
BTEX & F1 Hydrocarbons					
Benzene	ug/g	0.21	<0.020	0.020	5832366
Toluene	ug/g	2.3	<0.020	0.020	5832366
Ethylbenzene	ug/g	2	<0.020	0.020	5832366
o-Xylene	ug/g	-	<0.020	0.020	5832366
p+m-Xylene	ug/g	-	<0.040	0.040	5832366
Total Xylenes	ug/g	3.1	<0.040	0.040	5832366
F1 (C6-C10)	ug/g	55	<10	10	5832366
F1 (C6-C10) - BTEX	ug/g	55	<10	10	5832366
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	5830668
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	5830668
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	5830668
Reached Baseline at C50	ug/g	-	Yes		5830668
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	-	99		5832366
4-Bromofluorobenzene	%	-	101		5832366
D10-Ethylbenzene	%	-	95		5832366
D4-1,2-Dichloroethane	%	-	101		5832366
o-Terphenyl	%	-	95		5830668

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IFR993	IFR997		
Sampling Date			2018/11/05	2018/11/06		
COC Number			N/A	N/A		
	UNITS	Criteria	BH18-2 SS3	BH18-3 SS3	RDL	QC Batch
Inorganics						
Moisture	%	-	15	16	1.0	5828260
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	<0.050	0.050	5824975
Volatile Organics						
Acetone (2-Propanone)	ug/g	16	<0.50	<0.50	0.50	5827005
Benzene	ug/g	0.21	<0.020	<0.020	0.020	5827005
Bromodichloromethane	ug/g	13	<0.050	<0.050	0.050	5827005
Bromoform	ug/g	0.27	<0.050	<0.050	0.050	5827005
Bromomethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Carbon Tetrachloride	ug/g	0.05	<0.050	<0.050	0.050	5827005
Chlorobenzene	ug/g	2.4	<0.050	<0.050	0.050	5827005
Chloroform	ug/g	0.05	<0.050	<0.050	0.050	5827005
Dibromochloromethane	ug/g	9.4	<0.050	<0.050	0.050	5827005
1,2-Dichlorobenzene	ug/g	3.4	<0.050	<0.050	0.050	5827005
1,3-Dichlorobenzene	ug/g	4.8	<0.050	<0.050	0.050	5827005
1,4-Dichlorobenzene	ug/g	0.083	<0.050	<0.050	0.050	5827005
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	<0.050	0.050	5827005
1,1-Dichloroethane	ug/g	3.5	<0.050	<0.050	0.050	5827005
1,2-Dichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
1,1-Dichloroethylene	ug/g	0.05	<0.050	<0.050	0.050	5827005
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	<0.050	0.050	5827005
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	<0.050	0.050	5827005
1,2-Dichloropropane	ug/g	0.05	<0.050	<0.050	0.050	5827005
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	<0.030	0.030	5827005
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	<0.040	0.040	5827005
Ethylbenzene	ug/g	2	<0.020	<0.020	0.020	5827005
Ethylene Dibromide	ug/g	0.05	<0.050	<0.050	0.050	5827005
Hexane	ug/g	2.8	<0.050	<0.050	0.050	5827005
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	<0.050	0.050	5827005

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IFR993	IFR997		
Sampling Date			2018/11/05	2018/11/06		
COC Number			N/A	N/A		
	UNITS	Criteria	BH18-2 SS3	BH18-3 SS3	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	<0.50	0.50	5827005
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	<0.50	0.50	5827005
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	<0.050	0.050	5827005
Styrene	ug/g	0.7	<0.050	<0.050	0.050	5827005
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	<0.050	0.050	5827005
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Tetrachloroethylene	ug/g	0.28	<0.050	<0.050	0.050	5827005
Toluene	ug/g	2.3	<0.020	<0.020	0.020	5827005
1,1,1-Trichloroethane	ug/g	0.38	<0.050	<0.050	0.050	5827005
1,1,2-Trichloroethane	ug/g	0.05	<0.050	<0.050	0.050	5827005
Trichloroethylene	ug/g	0.061	<0.050	<0.050	0.050	5827005
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	<0.050	0.050	5827005
Vinyl Chloride	ug/g	0.02	<0.020	<0.020	0.020	5827005
p+m-Xylene	ug/g	-	<0.020	<0.020	0.020	5827005
o-Xylene	ug/g	-	<0.020	<0.020	0.020	5827005
Total Xylenes	ug/g	3.1	<0.020	<0.020	0.020	5827005
F1 (C6-C10)	ug/g	55	<10	<10	10	5827005
F1 (C6-C10) - BTEX	ug/g	55	<10	<10	10	5827005
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	<10	10	5830668
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	<50	50	5830668
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	<50	50	5830668
Reached Baseline at C50	ug/g	-	Yes	Yes		5830668
Surrogate Recovery (%)						
o-Terphenyl	%	-	101	89		5830668
4-Bromofluorobenzene	%	-	97	98		5827005
D10-o-Xylene	%	-	102	104		5827005
D4-1,2-Dichloroethane	%	-	101	103		5827005
D8-Toluene	%	-	99	99		5827005

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

O.REG 153 VOCS BY HS (SOIL)

Maxxam ID			IFR994		
Sampling Date			2018/11/05		
COC Number			N/A		
	UNITS	Criteria	QAQC2	RDL	QC Batch
Inorganics					
Moisture	%	-	15	1.0	5827432
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	5824975
Volatile Organics					
Acetone (2-Propanone)	ug/g	16	<0.50	0.50	5829333
Benzene	ug/g	0.21	<0.020	0.020	5829333
Bromodichloromethane	ug/g	13	<0.050	0.050	5829333
Bromoform	ug/g	0.27	<0.050	0.050	5829333
Bromomethane	ug/g	0.05	<0.050	0.050	5829333
Carbon Tetrachloride	ug/g	0.05	<0.050	0.050	5829333
Chlorobenzene	ug/g	2.4	<0.050	0.050	5829333
Chloroform	ug/g	0.05	<0.050	0.050	5829333
Dibromochloromethane	ug/g	9.4	<0.050	0.050	5829333
1,2-Dichlorobenzene	ug/g	3.4	<0.050	0.050	5829333
1,3-Dichlorobenzene	ug/g	4.8	<0.050	0.050	5829333
1,4-Dichlorobenzene	ug/g	0.083	<0.050	0.050	5829333
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	0.050	5829333
1,1-Dichloroethane	ug/g	3.5	<0.050	0.050	5829333
1,2-Dichloroethane	ug/g	0.05	<0.050	0.050	5829333
1,1-Dichloroethylene	ug/g	0.05	<0.050	0.050	5829333
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	0.050	5829333
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	0.050	5829333
1,2-Dichloropropane	ug/g	0.05	<0.050	0.050	5829333
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	5829333
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	5829333
Ethylbenzene	ug/g	2	<0.020	0.020	5829333
Ethylene Dibromide	ug/g	0.05	<0.050	0.050	5829333
Hexane	ug/g	2.8	<0.050	0.050	5829333
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	0.050	5829333

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

O.REG 153 VOCS BY HS (SOIL)

Maxxam ID			IFR994		
Sampling Date			2018/11/05		
COC Number			N/A		
	UNITS	Criteria	QAQC2	RDL	QC Batch
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	0.50	5829333
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	0.50	5829333
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	0.050	5829333
Styrene	ug/g	0.7	<0.050	0.050	5829333
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	0.050	5829333
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	0.050	5829333
Tetrachloroethylene	ug/g	0.28	<0.050	0.050	5829333
Toluene	ug/g	2.3	<0.020	0.020	5829333
1,1,1-Trichloroethane	ug/g	0.38	<0.050	0.050	5829333
1,1,2-Trichloroethane	ug/g	0.05	<0.050	0.050	5829333
Trichloroethylene	ug/g	0.061	<0.050	0.050	5829333
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	0.050	5829333
Vinyl Chloride	ug/g	0.02	<0.020	0.020	5829333
p+m-Xylene	ug/g	-	<0.020	0.020	5829333
o-Xylene	ug/g	-	<0.020	0.020	5829333
Total Xylenes	ug/g	3.1	<0.020	0.020	5829333
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	-	94		5829333
D10-o-Xylene	%	-	112		5829333
D4-1,2-Dichloroethane	%	-	100		5829333
D8-Toluene	%	-	98		5829333

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

TEST SUMMARY

Maxxam ID: IFR992
Sample ID: BH18-2 SS2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5824630	N/A	2018/11/13	Automated Statchk
Hot Water Extractable Boron	ICP	5832167	2018/11/12	2018/11/12	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5829714	2018/11/09	2018/11/12	Xuanhong Qiu
Conductivity	AT	5832611	2018/11/13	2018/11/13	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5829630	2018/11/09	2018/11/13	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5831295	2018/11/10	2018/11/12	Daniel Teclu
Moisture	BAL	5828728	N/A	2018/11/08	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5829805	2018/11/09	2018/11/10	Jett Wu
pH CaCl2 EXTRACT	AT	5832266	2018/11/12	2018/11/12	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5824976	N/A	2018/11/14	Automated Statchk

Maxxam ID: IFR993
Sample ID: BH18-2 SS3
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5827005	N/A	2018/11/08	Manpreet Sarao

Maxxam ID: IFR994
Sample ID: QAQC2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/13	Automated Statchk
Moisture	BAL	5827432	N/A	2018/11/08	Min Yang
Volatile Organic Compounds in Soil	GC/MS	5829333	N/A	2018/11/12	Karen Hughes

Maxxam ID: IFR994 Dup
Sample ID: QAQC2
Matrix: Soil

Collected: 2018/11/05
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Soil	GC/MS	5829333	N/A	2018/11/12	Karen Hughes

Maxxam ID: IFR995
Sample ID: BH18-3 SS1
Matrix: Soil

Collected: 2018/11/06
Shipped:
Received: 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5831223	2018/11/10	2018/11/12	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5832898	2018/11/12	2018/11/13	Louise Harding
Conductivity	AT	5832165	2018/11/12	2018/11/12	Surinder Rai
Hexavalent Chromium in Soil by IC	IC/SPEC	5829630	2018/11/09	2018/11/13	Sally Norouz

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

TEST SUMMARY

Maxxam ID: IFR995 **Collected:** 2018/11/06
Sample ID: BH18-3 SS1 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5831295	2018/11/10	2018/11/12	Daniel Teclu
Moisture	BAL	5832697	N/A	2018/11/12	Min Yang
pH CaCl2 EXTRACT	AT	5832266	2018/11/12	2018/11/12	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5824976	N/A	2018/11/13	Automated Statchk

Maxxam ID: IFR996 **Collected:** 2018/11/06
Sample ID: BH18-3 SS2 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5824630	N/A	2018/11/13	Automated Statchk
Moisture	BAL	5828411	N/A	2018/11/08	Min Yang
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5829805	2018/11/09	2018/11/10	Jett Wu

Maxxam ID: IFR997 **Collected:** 2018/11/06
Sample ID: BH18-3 SS3 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5824975	N/A	2018/11/09	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5827005	N/A	2018/11/09	Manpreet Sarao

Maxxam ID: IFR998 **Collected:** 2018/11/06
Sample ID: QAQC3 **Shipped:**
Matrix: Soil **Received:** 2018/11/07

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	5832366	N/A	2018/11/12	Abdi Mohamud
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5830668	2018/11/09	2018/11/13	Zhiyue (Frank) Zhu
Moisture	BAL	5828260	N/A	2018/11/08	Min Yang

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GENERAL COMMENTS

Custody seal was present but not intact

Results relate only to the items tested.

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Maxxam Job #: B8T6953
Report Date: 2018/11/14

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5827005	4-Bromofluorobenzene	2018/11/08	101	60 - 140	101	60 - 140	100	%		
5827005	D10-o-Xylene	2018/11/08	100	60 - 130	105	60 - 130	95	%		
5827005	D4-1,2-Dichloroethane	2018/11/08	99	60 - 140	98	60 - 140	98	%		
5827005	D8-Toluene	2018/11/08	102	60 - 140	102	60 - 140	99	%		
5829333	4-Bromofluorobenzene	2018/11/12	99	60 - 140	98	60 - 140	95	%		
5829333	D10-o-Xylene	2018/11/12	120	60 - 130	114	60 - 130	107	%		
5829333	D4-1,2-Dichloroethane	2018/11/12	97	60 - 140	101	60 - 140	105	%		
5829333	D8-Toluene	2018/11/12	128	60 - 140	105	60 - 140	96	%		
5829805	D10-Anthracene	2018/11/09	98	50 - 130	94	50 - 130	100	%		
5829805	D14-Terphenyl (FS)	2018/11/09	103	50 - 130	100	50 - 130	101	%		
5829805	D8-Acenaphthylene	2018/11/09	88	50 - 130	89	50 - 130	87	%		
5830668	o-Terphenyl	2018/11/13	128	60 - 130	112	60 - 130	120	%		
5832366	1,4-Difluorobenzene	2018/11/12	101	60 - 140	99	60 - 140	102	%		
5832366	4-Bromofluorobenzene	2018/11/12	100	60 - 140	102	60 - 140	103	%		
5832366	D10-Ethylbenzene	2018/11/12	93	60 - 140	104	60 - 140	90	%		
5832366	D4-1,2-Dichloroethane	2018/11/12	101	60 - 140	99	60 - 140	101	%		
5827005	1,1,1,2-Tetrachloroethane	2018/11/08	97	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,1-Trichloroethane	2018/11/08	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,2,2-Tetrachloroethane	2018/11/08	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	1,1,2-Trichloroethane	2018/11/08	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,1-Dichloroethane	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	1,1-Dichloroethylene	2018/11/08	91	60 - 140	90	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichlorobenzene	2018/11/08	93	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichloroethane	2018/11/08	96	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5827005	1,2-Dichloropropane	2018/11/08	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	1,3-Dichlorobenzene	2018/11/08	93	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	1,4-Dichlorobenzene	2018/11/08	92	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Acetone (2-Propanone)	2018/11/08	98	60 - 140	94	60 - 140	<0.50	ug/g	NC	50
5827005	Benzene	2018/11/08	92	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
5827005	Bromodichloromethane	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Bromoform	2018/11/08	98	60 - 140	98	60 - 130	<0.050	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5827005	Bromomethane	2018/11/08	98	60 - 140	96	60 - 140	<0.050	ug/g	NC	50
5827005	Carbon Tetrachloride	2018/11/08	93	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5827005	Chlorobenzene	2018/11/08	94	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5827005	Chloroform	2018/11/08	93	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
5827005	cis-1,2-Dichloroethylene	2018/11/08	89	60 - 140	88	60 - 130	<0.050	ug/g	NC	50
5827005	cis-1,3-Dichloropropene	2018/11/08	89	60 - 140	88	60 - 130	<0.030	ug/g	NC	50
5827005	Dibromochloromethane	2018/11/08	102	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5827005	Dichlorodifluoromethane (FREON 12)	2018/11/08	99	60 - 140	99	60 - 140	<0.050	ug/g	NC	50
5827005	Ethylbenzene	2018/11/08	94	60 - 140	94	60 - 130	<0.020	ug/g	NC	50
5827005	Ethylene Dibromide	2018/11/08	100	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5827005	F1 (C6-C10) - BTEX	2018/11/08					<10	ug/g	NC	30
5827005	F1 (C6-C10)	2018/11/08	89	60 - 140	87	80 - 120	<10	ug/g	NC	30
5827005	Hexane	2018/11/08	89	60 - 140	88	60 - 130	<0.050	ug/g	NC	50
5827005	Methyl Ethyl Ketone (2-Butanone)	2018/11/08	99	60 - 140	96	60 - 140	<0.50	ug/g	NC	50
5827005	Methyl Isobutyl Ketone	2018/11/08	94	60 - 140	93	60 - 130	<0.50	ug/g	NC	50
5827005	Methyl t-butyl ether (MTBE)	2018/11/08	96	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5827005	Methylene Chloride(Dichloromethane)	2018/11/08	99	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5827005	o-Xylene	2018/11/08	92	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5827005	p+m-Xylene	2018/11/08	90	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
5827005	Styrene	2018/11/08	93	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	Tetrachloroethylene	2018/11/08	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5827005	Toluene	2018/11/08	90	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
5827005	Total Xylenes	2018/11/08					<0.020	ug/g	NC	50
5827005	trans-1,2-Dichloroethylene	2018/11/08	91	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
5827005	trans-1,3-Dichloropropene	2018/11/08	95	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
5827005	Trichloroethylene	2018/11/08	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5827005	Trichlorofluoromethane (FREON 11)	2018/11/08	99	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5827005	Vinyl Chloride	2018/11/08	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5827432	Moisture	2018/11/08							0	20
5828260	Moisture	2018/11/08							0.97	20
5828411	Moisture	2018/11/08							1.5	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5828728	Moisture	2018/11/08							0.67	20
5829333	1,1,1,2-Tetrachloroethane	2018/11/12	100	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,1-Trichloroethane	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,2,2-Tetrachloroethane	2018/11/12	92	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5829333	1,1,2-Trichloroethane	2018/11/12	95	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	1,1-Dichloroethane	2018/11/12	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,1-Dichloroethylene	2018/11/12	99	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichlorobenzene	2018/11/12	100	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichloroethane	2018/11/12	93	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,2-Dichloropropane	2018/11/12	94	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	1,3-Dichlorobenzene	2018/11/12	104	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5829333	1,4-Dichlorobenzene	2018/11/12	103	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5829333	Acetone (2-Propanone)	2018/11/12	88	60 - 140	96	60 - 140	<0.50	ug/g	NC	50
5829333	Benzene	2018/11/12	94	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5829333	Bromodichloromethane	2018/11/12	93	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Bromoform	2018/11/12	92	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	Bromomethane	2018/11/12	105	60 - 140	100	60 - 140	<0.050	ug/g	NC	50
5829333	Carbon Tetrachloride	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Chlorobenzene	2018/11/12	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	Chloroform	2018/11/12	97	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5829333	cis-1,2-Dichloroethylene	2018/11/12	95	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	cis-1,3-Dichloropropene	2018/11/12	98	60 - 140	95	60 - 130	<0.030	ug/g	NC	50
5829333	Dibromochloromethane	2018/11/12	95	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Dichlorodifluoromethane (FREON 12)	2018/11/12	106	60 - 140	103	60 - 140	<0.050	ug/g	NC	50
5829333	Ethylbenzene	2018/11/12	100	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
5829333	Ethylene Dibromide	2018/11/12	94	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5829333	Hexane	2018/11/12	104	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Methyl Ethyl Ketone (2-Butanone)	2018/11/12	86	60 - 140	98	60 - 140	<0.50	ug/g	NC	50
5829333	Methyl Isobutyl Ketone	2018/11/12	89	60 - 140	102	60 - 130	<0.50	ug/g	NC	50
5829333	Methyl t-butyl ether (MTBE)	2018/11/12	91	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
5829333	Methylene Chloride(Dichloromethane)	2018/11/12	90	60 - 140	91	60 - 130	<0.050	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5829333	o-Xylene	2018/11/12	100	60 - 140	98	60 - 130	<0.020	ug/g	NC	50
5829333	p+m-Xylene	2018/11/12	101	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
5829333	Styrene	2018/11/12	102	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5829333	Tetrachloroethylene	2018/11/12	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5829333	Toluene	2018/11/12	98	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
5829333	Total Xylenes	2018/11/12					<0.020	ug/g	NC	50
5829333	trans-1,2-Dichloroethylene	2018/11/12	98	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5829333	trans-1,3-Dichloropropene	2018/11/12	106	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
5829333	Trichloroethylene	2018/11/12	97	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5829333	Trichlorofluoromethane (FREON 11)	2018/11/12	104	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5829333	Vinyl Chloride	2018/11/12	102	60 - 140	99	60 - 130	<0.020	ug/g	NC	50
5829630	Chromium (VI)	2018/11/13	52 (1)	70 - 130	91	80 - 120	<0.2	ug/g	NC	35
5829714	WAD Cyanide (Free)	2018/11/12	100	75 - 125	105	80 - 120	<0.01	ug/g	NC	35
5829805	1-Methylnaphthalene	2018/11/09	106	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5829805	2-Methylnaphthalene	2018/11/09	94	50 - 130	85	50 - 130	<0.0050	ug/g	NC	40
5829805	Acenaphthene	2018/11/09	100	50 - 130	93	50 - 130	<0.0050	ug/g	NC	40
5829805	Acenaphthylene	2018/11/09	92	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Anthracene	2018/11/09	107	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(a)anthracene	2018/11/09	102	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(a)pyrene	2018/11/09	94	50 - 130	84	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(b/j)fluoranthene	2018/11/09	103	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(g,h,i)perylene	2018/11/09	92	50 - 130	86	50 - 130	<0.0050	ug/g	NC	40
5829805	Benzo(k)fluoranthene	2018/11/09	95	50 - 130	89	50 - 130	<0.0050	ug/g	NC	40
5829805	Chrysene	2018/11/09	103	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5829805	Dibenz(a,h)anthracene	2018/11/09	95	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Fluoranthene	2018/11/09	110	50 - 130	102	50 - 130	<0.0050	ug/g	NC	40
5829805	Fluorene	2018/11/09	98	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5829805	Indeno(1,2,3-cd)pyrene	2018/11/09	98	50 - 130	87	50 - 130	<0.0050	ug/g	NC	40
5829805	Naphthalene	2018/11/09	96	50 - 130	91	50 - 130	<0.0050	ug/g	NC	40
5829805	Phenanthrene	2018/11/09	103	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5829805	Pyrene	2018/11/09	114	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5830668	F2 (C10-C16 Hydrocarbons)	2018/11/13	NC	50 - 130	110	80 - 120	<10	ug/g	40 (2)	30
5830668	F3 (C16-C34 Hydrocarbons)	2018/11/13	NC	50 - 130	113	80 - 120	<50	ug/g	42 (2)	30
5830668	F4 (C34-C50 Hydrocarbons)	2018/11/13	112	50 - 130	110	80 - 120	<50	ug/g	NC	30
5831223	Hot Water Ext. Boron (B)	2018/11/12	97	75 - 125	95	75 - 125	<0.050	ug/g	13	40
5831295	Acid Extractable Antimony (Sb)	2018/11/12	96	75 - 125	102	80 - 120	<0.20	ug/g	24	30
5831295	Acid Extractable Arsenic (As)	2018/11/12	104	75 - 125	100	80 - 120	<1.0	ug/g	5.5	30
5831295	Acid Extractable Barium (Ba)	2018/11/12	NC	75 - 125	99	80 - 120	<0.50	ug/g	8.6	30
5831295	Acid Extractable Beryllium (Be)	2018/11/12	102	75 - 125	97	80 - 120	<0.20	ug/g	5.7	30
5831295	Acid Extractable Boron (B)	2018/11/12	99	75 - 125	95	80 - 120	<5.0	ug/g	3.3	30
5831295	Acid Extractable Cadmium (Cd)	2018/11/12	104	75 - 125	100	80 - 120	<0.10	ug/g	14	30
5831295	Acid Extractable Chromium (Cr)	2018/11/12	108	75 - 125	100	80 - 120	<1.0	ug/g	1.9	30
5831295	Acid Extractable Cobalt (Co)	2018/11/12	102	75 - 125	100	80 - 120	<0.10	ug/g	0.47	30
5831295	Acid Extractable Copper (Cu)	2018/11/12	NC	75 - 125	98	80 - 120	<0.50	ug/g	0.12	30
5831295	Acid Extractable Lead (Pb)	2018/11/12	NC	75 - 125	102	80 - 120	<1.0	ug/g	3.9	30
5831295	Acid Extractable Mercury (Hg)	2018/11/12	99	75 - 125	98	80 - 120	<0.050	ug/g	7.3	30
5831295	Acid Extractable Molybdenum (Mo)	2018/11/12	104	75 - 125	99	80 - 120	<0.50	ug/g	0.97	30
5831295	Acid Extractable Nickel (Ni)	2018/11/12	106	75 - 125	100	80 - 120	<0.50	ug/g	0.83	30
5831295	Acid Extractable Selenium (Se)	2018/11/12	104	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
5831295	Acid Extractable Silver (Ag)	2018/11/12	101	75 - 125	97	80 - 120	<0.20	ug/g	NC	30
5831295	Acid Extractable Thallium (Tl)	2018/11/12	101	75 - 125	102	80 - 120	<0.050	ug/g	6.2	30
5831295	Acid Extractable Uranium (U)	2018/11/12	100	75 - 125	99	80 - 120	<0.050	ug/g	5.9	30
5831295	Acid Extractable Vanadium (V)	2018/11/12	NC	75 - 125	97	80 - 120	<5.0	ug/g	0.60	30
5831295	Acid Extractable Zinc (Zn)	2018/11/12	NC	75 - 125	104	80 - 120	<5.0	ug/g	0.95	30
5832165	Conductivity	2018/11/12			104	90 - 110	<0.002	mS/cm	0.40	10
5832167	Hot Water Ext. Boron (B)	2018/11/12	97	75 - 125	101	75 - 125	<0.050	ug/g	NC	40
5832266	Available (CaCl2) pH	2018/11/12			100	97 - 103			1.6	N/A
5832366	Benzene	2018/11/12	84	60 - 140	104	60 - 140	<0.020	ug/g	NC	50
5832366	Ethylbenzene	2018/11/12	93	60 - 140	109	60 - 140	<0.020	ug/g	NC	50
5832366	F1 (C6-C10) - BTEX	2018/11/12					<10	ug/g	NC	30
5832366	F1 (C6-C10)	2018/11/12	85	60 - 140	92	80 - 120	<10	ug/g	NC	30
5832366	o-Xylene	2018/11/12	92	60 - 140	106	60 - 140	<0.020	ug/g	NC	50

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5832366	p+m-Xylene	2018/11/12	93	60 - 140	110	60 - 140	<0.040	ug/g	NC	50
5832366	Toluene	2018/11/12	90	60 - 140	107	60 - 140	<0.020	ug/g	11	50
5832366	Total Xylenes	2018/11/12					<0.040	ug/g	NC	50
5832611	Conductivity	2018/11/13			104	90 - 110	<0.002	mS/cm	2.7	10
5832697	Moisture	2018/11/12							6.9	20
5832898	WAD Cyanide (Free)	2018/11/13	99	75 - 125	96	80 - 120	<0.01	ug/g	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.

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

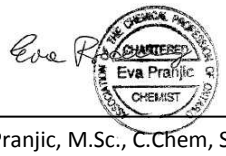
(1) The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample. The sample was reanalyzed with the same results.

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Page 1 of 1

Invoice Information		Report Information (if differs from invoice)		Project Information (where applicable)		Turnaround Time (TAT) Required
Company Name:	WSP	Company Name:	WSP	Quotation #:		[X] Regular TAT (5-7 days) Most analyses
Contact Name:		Contact Name:	Michael Wilson	P.O. #/ AFE#:		PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	51 Constellation Court, Toronto, ON	Address:	51 Constellation Court, Toronto, ON	Project #:	181-11306-00 PH 220	Rush TAT (Surcharges will be applied) [ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Phone:	416-798-0065 Fax: 416-798-0518	Phone:	416-798-0065 Fax: 416-798-0518	Site Location:	958-960 East Ave	
Email:	payables.ontario@wsp.com	Email:	michael.wilson@wsp.com	Site #:		Date Required:
				Sampled By:	B.S	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region ____
[ ] Other (Specify) *
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE): Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REFER TO BACK OF COC: REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	Reg 153 PAH	HOLD- DO NOT ANALYZE
1	BH18-2 SS2	2018/11/05	AM	So	1					X			X	
2	BH18-2 SS3	"	AM		3		X	X	X					
3	QAQC2	"	—		3				X					
4	BH18-3 SS1	2018/11/06	AM		1					X				
5	BH18-3 SS2		AM		1								X	
6	BH18-3 SS3		PM		3		X	X	X					
7	QAQC3	"	—	"	3		X	X						
8														
9														
10														

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
Y	N	5/8/8

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Gavin	2018/11/07	14:13	KAITLIN VANCLEUSEN	2018/11/07	14:15

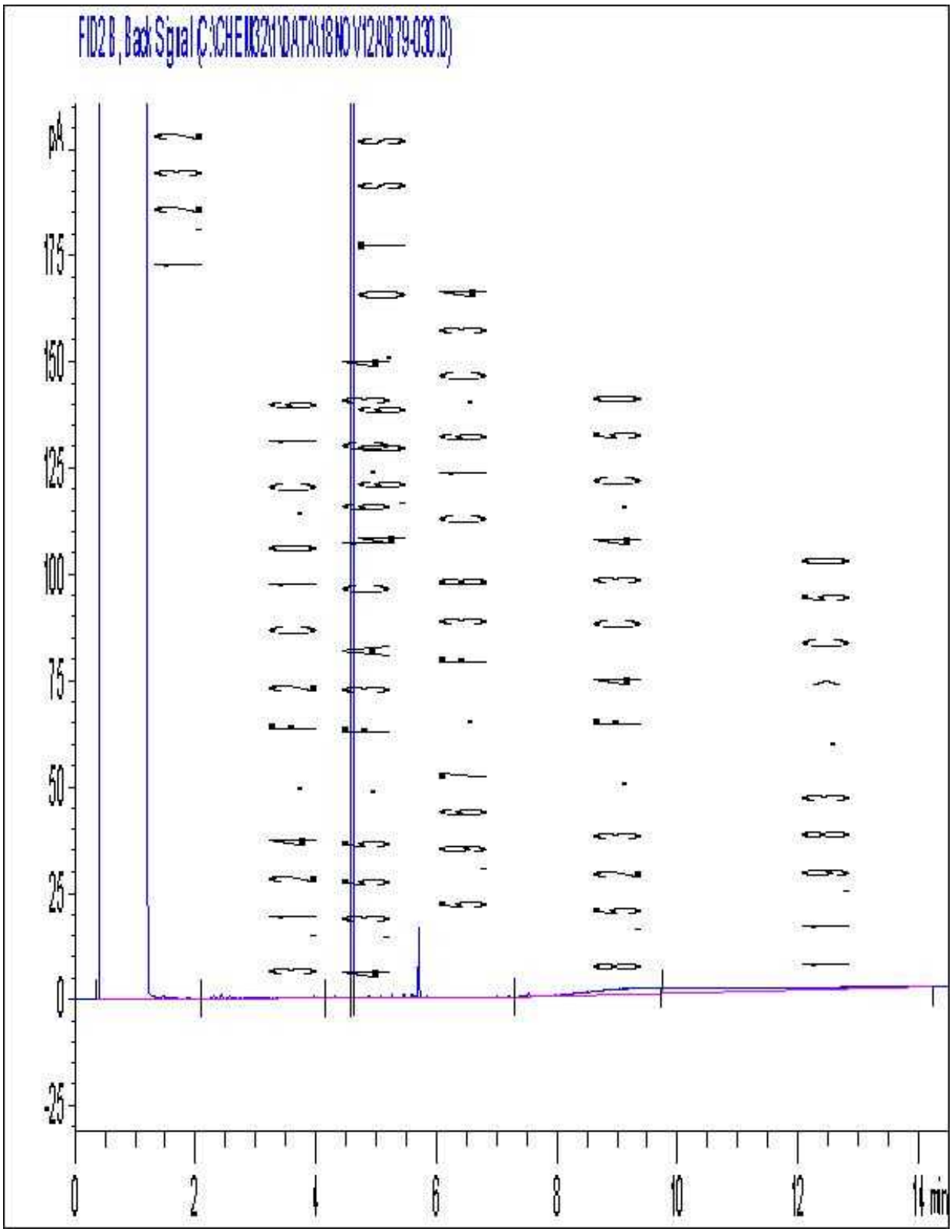
07-Nov-18 14:13
Ashton Gibson
B8T6953

KVG ENV-414

Maxxam Job #: B8T6953
Report Date: 2018/11/14
Maxxam Sample: IFR993

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: BH18-2 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

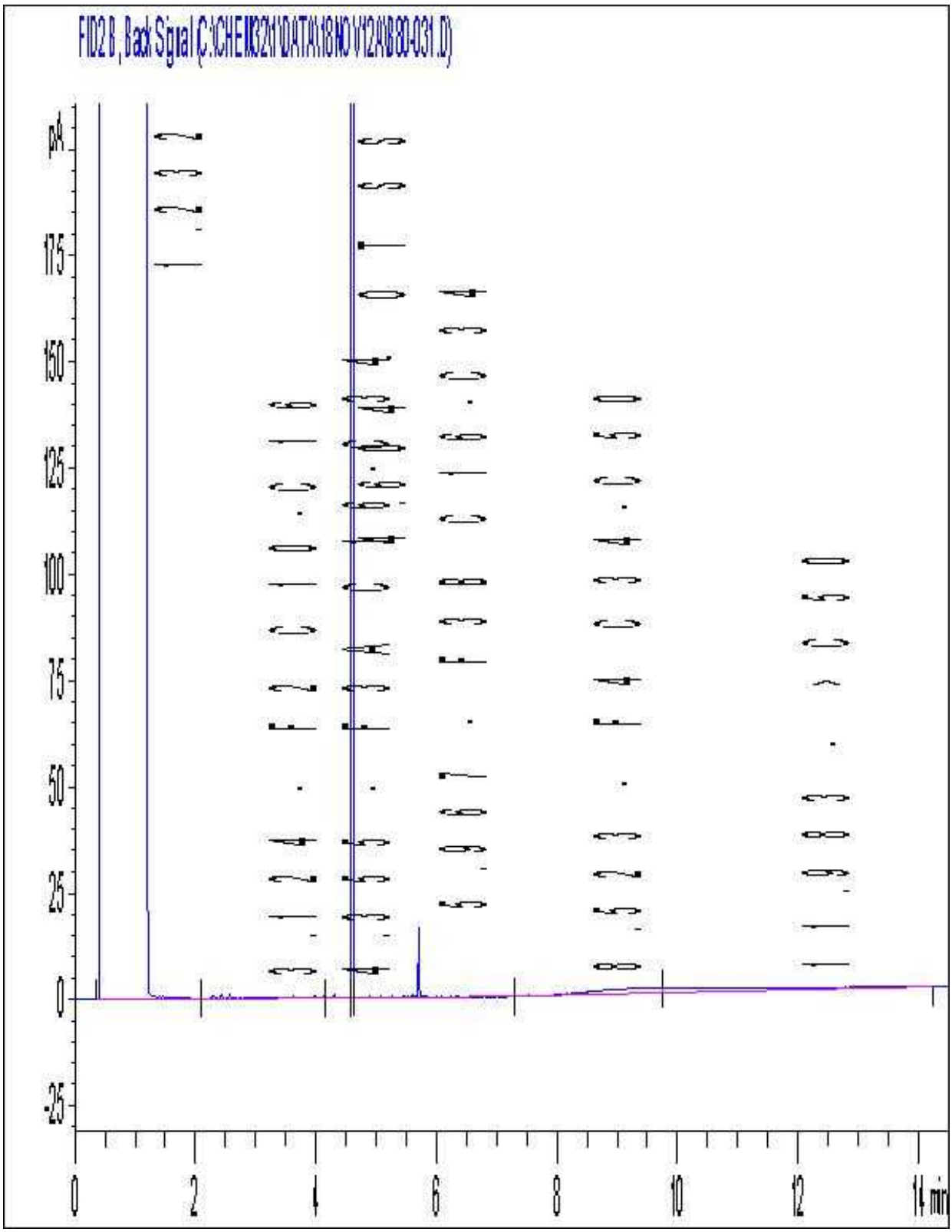


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8T6953
Report Date: 2018/11/14
Maxxam Sample: IFR997

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: BH18-3 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

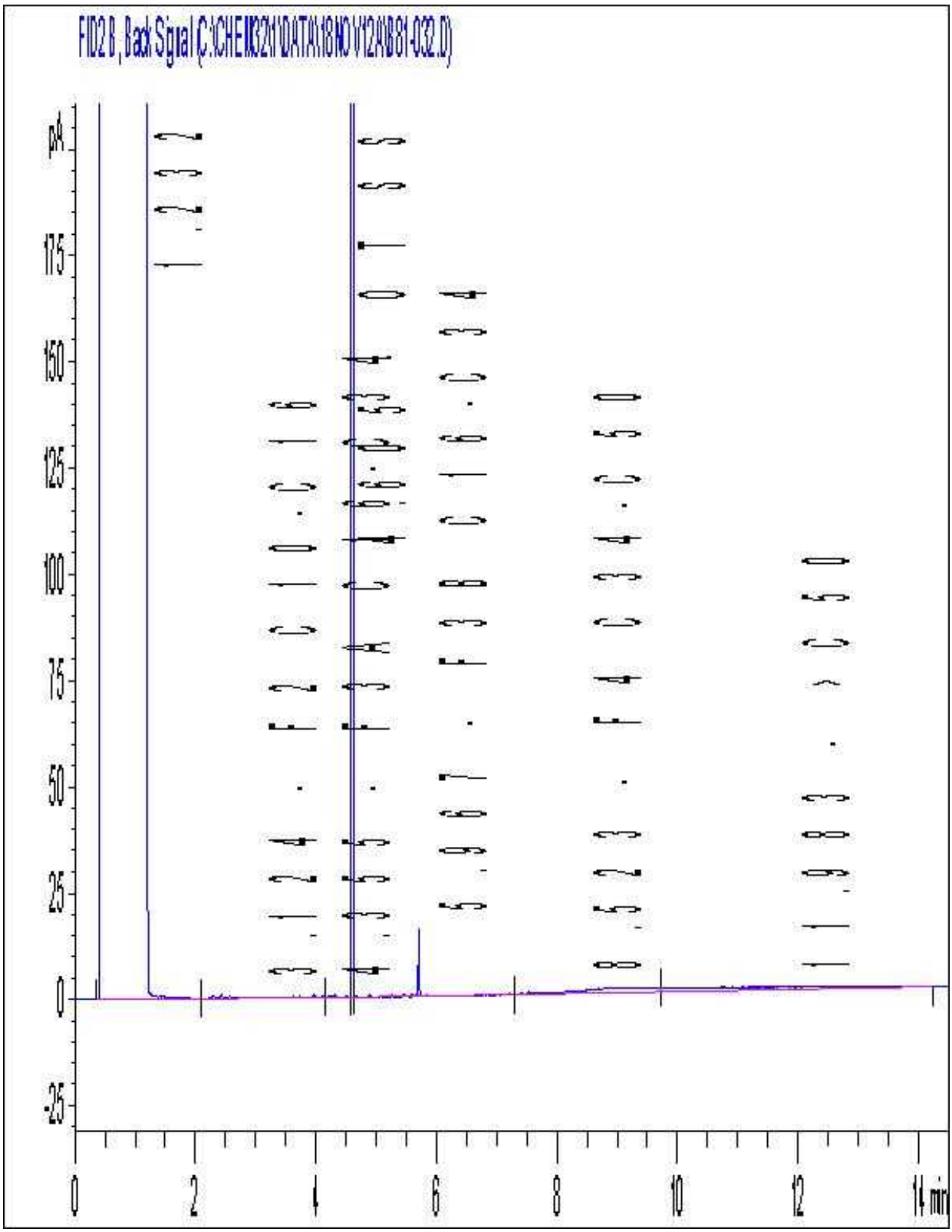


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8T6953
Report Date: 2018/11/14
Maxxam Sample: IFR998

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE
Client ID: QAQC3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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

Maxxam Job #: B8T6953
Report Date: 2018/11/14

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
BH18-2 SS2	IFR992-01	Conductivity	0.7	2.9	0.002	mS/cm
BH18-2 SS2	IFR992-01	Sodium Adsorption Ratio	5.0	24		N/A

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: N\A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/12
Report #: R5481409
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8T2736
Received: 2018/11/02, 13:23

Sample Matrix: Soil
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Methylnaphthalene Sum	2	N/A	2018/11/08	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron	1	2018/11/05	2018/11/06	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	1	N/A	2018/11/07		EPA 8260C m
Free (WAD) Cyanide	1	2018/11/06	2018/11/07	CAM SOP-00457	OMOE E3015 m
Conductivity	1	2018/11/07	2018/11/08	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	1	2018/11/06	2018/11/08	CAM SOP-00436	EPA 3060/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2018/11/05	2018/11/06	CAM SOP-00316	CCME CWS m
Strong Acid Leachable Metals by ICPMS	1	2018/11/05	2018/11/06	CAM SOP-00447	EPA 6020B m
Moisture	5	N/A	2018/11/03	CAM SOP-00445	Carter 2nd ed 51.2 m
PAH Compounds in Soil by GC/MS (SIM)	2	2018/11/07	2018/11/07	CAM SOP-00318	EPA 8270D m
Polychlorinated Biphenyl in Soil	1	2018/11/05	2018/11/06	CAM SOP-00309	EPA 8082A m
pH CaCl2 EXTRACT	1	2018/11/07	2018/11/07	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	1	N/A	2018/11/12	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2018/11/06	CAM SOP-00230	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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.

Your Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: N\A

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/12
Report #: R5481409
Version: 2 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8T2736

Received: 2018/11/02, 13:23

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

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

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

(1) Soils are reported on a dry weight basis unless otherwise specified.

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

Encryption Key

Ashton Gibson
Project Manager
12 Nov 2018 18:11:41

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IET106		
Sampling Date			2018/11/01		
COC Number			N\A		
	UNITS	Criteria	BH18-1 SS1	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0	1.4		5817853
Inorganics					
Conductivity	mS/cm	0.7	0.32	0.002	5822940
Moisture	%	-	11	1.0	5819559
Available (CaCl2) pH	pH	-	7.49		5824612
WAD Cyanide (Free)	ug/g	0.051	<0.01	0.01	5822732
Chromium (VI)	ug/g	8	<0.2	0.2	5821908
Metals					
Hot Water Ext. Boron (B)	ug/g	1.5	0.21	0.050	5821159
Acid Extractable Antimony (Sb)	ug/g	7.5	<0.20	0.20	5821053
Acid Extractable Arsenic (As)	ug/g	18	4.0	1.0	5821053
Acid Extractable Barium (Ba)	ug/g	390	78	0.50	5821053
Acid Extractable Beryllium (Be)	ug/g	4	0.72	0.20	5821053
Acid Extractable Boron (B)	ug/g	120	6.2	5.0	5821053
Acid Extractable Cadmium (Cd)	ug/g	1.2	0.17	0.10	5821053
Acid Extractable Chromium (Cr)	ug/g	160	22	1.0	5821053
Acid Extractable Cobalt (Co)	ug/g	22	10	0.10	5821053
Acid Extractable Copper (Cu)	ug/g	140	22	0.50	5821053
Acid Extractable Lead (Pb)	ug/g	120	23	1.0	5821053
Acid Extractable Molybdenum (Mo)	ug/g	6.9	<0.50	0.50	5821053
Acid Extractable Nickel (Ni)	ug/g	100	20	0.50	5821053
Acid Extractable Selenium (Se)	ug/g	2.4	<0.50	0.50	5821053
Acid Extractable Silver (Ag)	ug/g	20	<0.20	0.20	5821053
Acid Extractable Thallium (Tl)	ug/g	1	0.14	0.050	5821053
Acid Extractable Uranium (U)	ug/g	23	0.63	0.050	5821053
Acid Extractable Vanadium (V)	ug/g	86	31	5.0	5821053
Acid Extractable Zinc (Zn)	ug/g	340	67	5.0	5821053

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID			IET106		
Sampling Date			2018/11/01		
COC Number			N\A		
	UNITS	Criteria	BH18-1 SS1	RDL	QC Batch
Acid Extractable Mercury (Hg)	ug/g	0.27	<0.050	0.050	5821053

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 PAHS (SOIL)

Maxxam ID			IET107	IET110		
Sampling Date			2018/11/01	2018/11/01		
COC Number			N\A	N\A		
	UNITS	Criteria	BH18-1 SS2	QAQC-1	RDL	QC Batch
Inorganics						
Moisture	%	-	11	11	1.0	5819559
Calculated Parameters						
Methylnaphthalene, 2-(1-)	ug/g	0.99	<0.0071	<0.0071	0.0071	5818511
Polyaromatic Hydrocarbons						
Acenaphthene	ug/g	7.9	<0.0050	<0.0050	0.0050	5825102
Acenaphthylene	ug/g	0.15	<0.0050	<0.0050	0.0050	5825102
Anthracene	ug/g	0.67	<0.0050	<0.0050	0.0050	5825102
Benzo(a)anthracene	ug/g	0.5	<0.0050	<0.0050	0.0050	5825102
Benzo(a)pyrene	ug/g	0.3	<0.0050	<0.0050	0.0050	5825102
Benzo(b/j)fluoranthene	ug/g	0.78	<0.0050	<0.0050	0.0050	5825102
Benzo(g,h,i)perylene	ug/g	6.6	<0.0050	<0.0050	0.0050	5825102
Benzo(k)fluoranthene	ug/g	0.78	<0.0050	<0.0050	0.0050	5825102
Chrysene	ug/g	7	<0.0050	<0.0050	0.0050	5825102
Dibenz(a,h)anthracene	ug/g	0.1	<0.0050	<0.0050	0.0050	5825102
Fluoranthene	ug/g	0.69	0.0071	<0.0050	0.0050	5825102
Fluorene	ug/g	62	<0.0050	<0.0050	0.0050	5825102
Indeno(1,2,3-cd)pyrene	ug/g	0.38	<0.0050	<0.0050	0.0050	5825102
1-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	0.0050	5825102
2-Methylnaphthalene	ug/g	0.99	<0.0050	<0.0050	0.0050	5825102
Naphthalene	ug/g	0.6	<0.0050	<0.0050	0.0050	5825102
Phenanthrene	ug/g	6.2	<0.0050	<0.0050	0.0050	5825102
Pyrene	ug/g	78	0.0058	<0.0050	0.0050	5825102
Surrogate Recovery (%)						
D10-Anthracene	%	-	99	105		5825102
D14-Terphenyl (FS)	%	-	101	104		5825102
D8-Acenaphthylene	%	-	97	99		5825102

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 PCBS (SOIL)

Maxxam ID			IET111		
Sampling Date			2018/11/02		
COC Number			N\A		
	UNITS	Criteria	TP18-1 S1A	RDL	QC Batch
Inorganics					
Moisture	%	-	18	1.0	5819559
PCBs					
Aroclor 1242	ug/g	-	<0.010	0.010	5820619
Aroclor 1248	ug/g	-	<0.010	0.010	5820619
Aroclor 1254	ug/g	-	<0.025 (1)	0.025	5820619
Aroclor 1260	ug/g	-	<0.010	0.010	5820619
Total PCB	ug/g	0.35	<0.010	0.010	5820619
Surrogate Recovery (%)					
Decachlorobiphenyl	%	-	79		5820619

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil
(1) PCB analysis:Detection Limit was raised due to matrix interferences.

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IET109		
Sampling Date			2018/11/01		
COC Number			N\A		
	UNITS	Criteria	BH18-1 SS3	RDL	QC Batch
Inorganics					
Moisture	%	-	11	1.0	5819559
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	0.05	<0.050	0.050	5818512
Volatile Organics					
Acetone (2-Propanone)	ug/g	16	<0.50	0.50	5819502
Benzene	ug/g	0.21	<0.020	0.020	5819502
Bromodichloromethane	ug/g	13	<0.050	0.050	5819502
Bromoform	ug/g	0.27	<0.050	0.050	5819502
Bromomethane	ug/g	0.05	<0.050	0.050	5819502
Carbon Tetrachloride	ug/g	0.05	<0.050	0.050	5819502
Chlorobenzene	ug/g	2.4	<0.050	0.050	5819502
Chloroform	ug/g	0.05	<0.050	0.050	5819502
Dibromochloromethane	ug/g	9.4	<0.050	0.050	5819502
1,2-Dichlorobenzene	ug/g	3.4	<0.050	0.050	5819502
1,3-Dichlorobenzene	ug/g	4.8	<0.050	0.050	5819502
1,4-Dichlorobenzene	ug/g	0.083	<0.050	0.050	5819502
Dichlorodifluoromethane (FREON 12)	ug/g	16	<0.050	0.050	5819502
1,1-Dichloroethane	ug/g	3.5	<0.050	0.050	5819502
1,2-Dichloroethane	ug/g	0.05	<0.050	0.050	5819502
1,1-Dichloroethylene	ug/g	0.05	<0.050	0.050	5819502
cis-1,2-Dichloroethylene	ug/g	3.4	<0.050	0.050	5819502
trans-1,2-Dichloroethylene	ug/g	0.084	<0.050	0.050	5819502
1,2-Dichloropropane	ug/g	0.05	<0.050	0.050	5819502
cis-1,3-Dichloropropene	ug/g	0.05	<0.030	0.030	5819502
trans-1,3-Dichloropropene	ug/g	0.05	<0.040	0.040	5819502
Ethylbenzene	ug/g	2	<0.020	0.020	5819502
Ethylene Dibromide	ug/g	0.05	<0.050	0.050	5819502
Hexane	ug/g	2.8	<0.050	0.050	5819502

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IET109		
Sampling Date			2018/11/01		
COC Number			N\A		
	UNITS	Criteria	BH18-1 SS3	RDL	QC Batch
Methylene Chloride(Dichloromethane)	ug/g	0.1	<0.050	0.050	5819502
Methyl Ethyl Ketone (2-Butanone)	ug/g	16	<0.50	0.50	5819502
Methyl Isobutyl Ketone	ug/g	1.7	<0.50	0.50	5819502
Methyl t-butyl ether (MTBE)	ug/g	0.75	<0.050	0.050	5819502
Styrene	ug/g	0.7	<0.050	0.050	5819502
1,1,1,2-Tetrachloroethane	ug/g	0.058	<0.050	0.050	5819502
1,1,2,2-Tetrachloroethane	ug/g	0.05	<0.050	0.050	5819502
Tetrachloroethylene	ug/g	0.28	<0.050	0.050	5819502
Toluene	ug/g	2.3	<0.020	0.020	5819502
1,1,1-Trichloroethane	ug/g	0.38	<0.050	0.050	5819502
1,1,2-Trichloroethane	ug/g	0.05	<0.050	0.050	5819502
Trichloroethylene	ug/g	0.061	<0.050	0.050	5819502
Trichlorofluoromethane (FREON 11)	ug/g	4	<0.050	0.050	5819502
Vinyl Chloride	ug/g	0.02	<0.020	0.020	5819502
p+m-Xylene	ug/g	-	<0.020	0.020	5819502
o-Xylene	ug/g	-	<0.020	0.020	5819502
Total Xylenes	ug/g	3.1	<0.020	0.020	5819502
F1 (C6-C10)	ug/g	55	<10	10	5819502
F1 (C6-C10) - BTEX	ug/g	55	<10	10	5819502
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	98	<10	10	5820664
F3 (C16-C34 Hydrocarbons)	ug/g	300	<50	50	5820664
F4 (C34-C50 Hydrocarbons)	ug/g	2800	<50	50	5820664
Reached Baseline at C50	ug/g	-	Yes		5820664
Surrogate Recovery (%)					
o-Terphenyl	%	-	95		5820664
4-Bromofluorobenzene	%	-	90		5819502
D10-o-Xylene	%	-	94		5819502
D4-1,2-Dichloroethane	%	-	109		5819502

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

O.REG 153 VOCS BY HS & F1-F4 (SOIL)

Maxxam ID			IET109		
Sampling Date			2018/11/01		
COC Number			N\A		
	UNITS	**Criteria**	**BH18-1 SS3**	**RDL**	**QC Batch**
D8-Toluene	%	-	97		5819502

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Soil - Residential/Parkland/Institutional Property Use - Coarse Textured Soil

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IET106
Sample ID: BH18-1 SS1
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	5821159	2018/11/05	2018/11/06	Suban Kanapathippllai
Free (WAD) Cyanide	TECH	5822732	2018/11/06	2018/11/07	Louise Harding
Conductivity	AT	5822940	2018/11/07	2018/11/08	Barbara Kalbasi Esfahani
Hexavalent Chromium in Soil by IC	IC/SPEC	5821908	2018/11/06	2018/11/08	Sally Norouz
Strong Acid Leachable Metals by ICPMS	ICP/MS	5821053	2018/11/05	2018/11/06	Daniel Teclu
Moisture	BAL	5819559	N/A	2018/11/03	Prgya Panchal
pH CaCl2 EXTRACT	AT	5824612	2018/11/07	2018/11/07	Gnana Thomas
Sodium Adsorption Ratio (SAR)	CALC/MET	5817853	N/A	2018/11/12	Automated Statchk

Maxxam ID: IET106 Dup
Sample ID: BH18-1 SS1
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Strong Acid Leachable Metals by ICPMS	ICP/MS	5821053	2018/11/05	2018/11/06	Daniel Teclu

Maxxam ID: IET107
Sample ID: BH18-1 SS2
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5818511	N/A	2018/11/08	Automated Statchk
Moisture	BAL	5819559	N/A	2018/11/03	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5825102	2018/11/07	2018/11/07	Jett Wu

Maxxam ID: IET109
Sample ID: BH18-1 SS3
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5818512	N/A	2018/11/07	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	5820664	2018/11/05	2018/11/06	Atoosa Keshavarz
Moisture	BAL	5819559	N/A	2018/11/03	Prgya Panchal
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5819502	N/A	2018/11/06	Xueming Jiang

Maxxam ID: IET110
Sample ID: QAQC-1
Matrix: Soil

Collected: 2018/11/01
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	5818511	N/A	2018/11/08	Automated Statchk
Moisture	BAL	5819559	N/A	2018/11/03	Prgya Panchal
PAH Compounds in Soil by GC/MS (SIM)	GC/MS	5825102	2018/11/07	2018/11/07	Jett Wu

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

TEST SUMMARY

Maxxam ID: IET111
Sample ID: TP18-1 S1A
Matrix: Soil

Collected: 2018/11/02
Shipped:
Received: 2018/11/02

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	5819559	N/A	2018/11/03	Prgya Panchal
Polychlorinated Biphenyl in Soil	GC/ECD	5820619	2018/11/05	2018/11/06	Svitlana Shaula

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GENERAL COMMENTS

Results relate only to the items tested.

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5819502	4-Bromofluorobenzene	2018/11/06	99	60 - 140	97	60 - 140	91	%		
5819502	D10-o-Xylene	2018/11/06	103	60 - 130	95	60 - 130	91	%		
5819502	D4-1,2-Dichloroethane	2018/11/06	98	60 - 140	107	60 - 140	104	%		
5819502	D8-Toluene	2018/11/06	106	60 - 140	103	60 - 140	95	%		
5820619	Decachlorobiphenyl	2018/11/05	95	60 - 130	89	60 - 130	94	%		
5820664	o-Terphenyl	2018/11/06	99	60 - 130	101	60 - 130	96	%		
5825102	D10-Anthracene	2018/11/07	100	50 - 130	103	50 - 130	99	%		
5825102	D14-Terphenyl (FS)	2018/11/07	102	50 - 130	103	50 - 130	102	%		
5825102	D8-Acenaphthylene	2018/11/07	94	50 - 130	97	50 - 130	94	%		
5819502	1,1,1,2-Tetrachloroethane	2018/11/06	102	60 - 140	98	60 - 130	<0.050	ug/g	NC	50
5819502	1,1,1-Trichloroethane	2018/11/06	105	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5819502	1,1,2,2-Tetrachloroethane	2018/11/06	95	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5819502	1,1,2-Trichloroethane	2018/11/06	96	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5819502	1,1-Dichloroethane	2018/11/06	102	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5819502	1,1-Dichloroethylene	2018/11/06	104	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5819502	1,2-Dichlorobenzene	2018/11/06	99	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5819502	1,2-Dichloroethane	2018/11/06	99	60 - 140	103	60 - 130	<0.050	ug/g	NC	50
5819502	1,2-Dichloropropane	2018/11/06	98	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5819502	1,3-Dichlorobenzene	2018/11/06	102	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5819502	1,4-Dichlorobenzene	2018/11/06	101	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
5819502	Acetone (2-Propanone)	2018/11/06	92	60 - 140	100	60 - 140	<0.50	ug/g	NC	50
5819502	Benzene	2018/11/06	100	60 - 140	98	60 - 130	<0.020	ug/g	NC	50
5819502	Bromodichloromethane	2018/11/06	99	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5819502	Bromoform	2018/11/06	93	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5819502	Bromomethane	2018/11/06	103	60 - 140	101	60 - 140	<0.050	ug/g	NC	50
5819502	Carbon Tetrachloride	2018/11/06	106	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5819502	Chlorobenzene	2018/11/06	98	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5819502	Chloroform	2018/11/06	99	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5819502	cis-1,2-Dichloroethylene	2018/11/06	101	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
5819502	cis-1,3-Dichloropropene	2018/11/06	91	60 - 140	91	60 - 130	<0.030	ug/g	NC	50
5819502	Dibromochloromethane	2018/11/06	98	60 - 140	98	60 - 130	<0.050	ug/g	NC	50

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5819502	Dichlorodifluoromethane (FREON 12)	2018/11/06	109	60 - 140	110	60 - 140	<0.050	ug/g	NC	50
5819502	Ethylbenzene	2018/11/06	99	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5819502	Ethylene Dibromide	2018/11/06	95	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
5819502	F1 (C6-C10) - BTEX	2018/11/06					<10	ug/g	NC	30
5819502	F1 (C6-C10)	2018/11/06	102	60 - 140	99	80 - 120	<10	ug/g	NC	30
5819502	Hexane	2018/11/06	104	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5819502	Methyl Ethyl Ketone (2-Butanone)	2018/11/06	88	60 - 140	98	60 - 140	<0.50	ug/g	NC	50
5819502	Methyl Isobutyl Ketone	2018/11/06	87	60 - 140	96	60 - 130	<0.50	ug/g	NC	50
5819502	Methyl t-butyl ether (MTBE)	2018/11/06	93	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5819502	Methylene Chloride(Dichloromethane)	2018/11/06	93	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
5819502	o-Xylene	2018/11/06	99	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
5819502	p+m-Xylene	2018/11/06	96	60 - 140	89	60 - 130	<0.020	ug/g	NC	50
5819502	Styrene	2018/11/06	99	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
5819502	Tetrachloroethylene	2018/11/06	108	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
5819502	Toluene	2018/11/06	101	60 - 140	95	60 - 130	<0.020	ug/g	NC	50
5819502	Total Xylenes	2018/11/06					<0.020	ug/g	NC	50
5819502	trans-1,2-Dichloroethylene	2018/11/06	104	60 - 140	102	60 - 130	<0.050	ug/g	NC	50
5819502	trans-1,3-Dichloropropene	2018/11/06	97	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
5819502	Trichloroethylene	2018/11/06	102	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
5819502	Trichlorofluoromethane (FREON 11)	2018/11/06	112	60 - 140	107	60 - 130	<0.050	ug/g	NC	50
5819502	Vinyl Chloride	2018/11/06	110	60 - 140	107	60 - 130	<0.020	ug/g	NC	50
5819559	Moisture	2018/11/03							2.1	20
5820619	Aroclor 1242	2018/11/05					<0.010	ug/g	NC	50
5820619	Aroclor 1248	2018/11/05					<0.010	ug/g	NC	50
5820619	Aroclor 1254	2018/11/05					<0.010	ug/g	NC	50
5820619	Aroclor 1260	2018/11/05	122	30 - 130	113	30 - 130	<0.010	ug/g	NC	50
5820619	Total PCB	2018/11/05	122	30 - 130	113	30 - 130	<0.010	ug/g	NC	50
5820664	F2 (C10-C16 Hydrocarbons)	2018/11/06	93	50 - 130	94	80 - 120	<10	ug/g	NC	30
5820664	F3 (C16-C34 Hydrocarbons)	2018/11/06	93	50 - 130	98	80 - 120	<50	ug/g	NC	30
5820664	F4 (C34-C50 Hydrocarbons)	2018/11/06	85	50 - 130	91	80 - 120	<50	ug/g	NC	30
5821053	Acid Extractable Antimony (Sb)	2018/11/06	98	75 - 125	106	80 - 120	<0.20	ug/g	NC	30

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Maxxam
A Bureau Veritas Group Company

Maxxam Job #: B8T2736
Report Date: 2018/11/12

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5821053	Acid Extractable Arsenic (As)	2018/11/06	103	75 - 125	102	80 - 120	<1.0	ug/g	3.8	30
5821053	Acid Extractable Barium (Ba)	2018/11/06	NC	75 - 125	98	80 - 120	<0.50	ug/g	0.090	30
5821053	Acid Extractable Beryllium (Be)	2018/11/06	102	75 - 125	100	80 - 120	<0.20	ug/g	1.3	30
5821053	Acid Extractable Boron (B)	2018/11/06	94	75 - 125	99	80 - 120	<5.0	ug/g	7.4	30
5821053	Acid Extractable Cadmium (Cd)	2018/11/06	100	75 - 125	101	80 - 120	<0.10	ug/g	24	30
5821053	Acid Extractable Chromium (Cr)	2018/11/06	105	75 - 125	100	80 - 120	<1.0	ug/g	1.9	30
5821053	Acid Extractable Cobalt (Co)	2018/11/06	98	75 - 125	100	80 - 120	<0.10	ug/g	1.7	30
5821053	Acid Extractable Copper (Cu)	2018/11/06	100	75 - 125	103	80 - 120	<0.50	ug/g	0.83	30
5821053	Acid Extractable Lead (Pb)	2018/11/06	109	75 - 125	102	80 - 120	<1.0	ug/g	3.8	30
5821053	Acid Extractable Mercury (Hg)	2018/11/06	94	75 - 125	99	80 - 120	<0.050	ug/g	6.3	30
5821053	Acid Extractable Molybdenum (Mo)	2018/11/06	101	75 - 125	101	80 - 120	<0.50	ug/g	9.1	30
5821053	Acid Extractable Nickel (Ni)	2018/11/06	106	75 - 125	101	80 - 120	<0.50	ug/g	4.6	30
5821053	Acid Extractable Selenium (Se)	2018/11/06	98	75 - 125	103	80 - 120	<0.50	ug/g	NC	30
5821053	Acid Extractable Silver (Ag)	2018/11/06	101	75 - 125	103	80 - 120	<0.20	ug/g	NC	30
5821053	Acid Extractable Thallium (Tl)	2018/11/06	103	75 - 125	103	80 - 120	<0.050	ug/g	17	30
5821053	Acid Extractable Uranium (U)	2018/11/06	102	75 - 125	101	80 - 120	<0.050	ug/g	1.2	30
5821053	Acid Extractable Vanadium (V)	2018/11/06	NC	75 - 125	98	80 - 120	<5.0	ug/g	2.3	30
5821053	Acid Extractable Zinc (Zn)	2018/11/06	NC	75 - 125	96	80 - 120	<5.0	ug/g	1.4	30
5821159	Hot Water Ext. Boron (B)	2018/11/06	99	75 - 125	102	75 - 125	<0.050	ug/g	0.67	40
5821908	Chromium (VI)	2018/11/08	88	70 - 130	101	80 - 120	<0.2	ug/g	0.99	35
5822732	WAD Cyanide (Free)	2018/11/07	92	75 - 125	91	80 - 120	<0.01	ug/g	NC	35
5822940	Conductivity	2018/11/08			105	90 - 110	<0.002	mS/cm	0.17	10
5824612	Available (CaCl2) pH	2018/11/07			100	97 - 103			0.69	N/A
5825102	1-Methylnaphthalene	2018/11/07	105	50 - 130	105	50 - 130	<0.0050	ug/g	NC	40
5825102	2-Methylnaphthalene	2018/11/07	92	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5825102	Acenaphthene	2018/11/07	96	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
5825102	Acenaphthylene	2018/11/07	90	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5825102	Anthracene	2018/11/07	99	50 - 130	98	50 - 130	<0.0050	ug/g	NC	40
5825102	Benzo(a)anthracene	2018/11/07	99	50 - 130	101	50 - 130	<0.0050	ug/g	NC	40
5825102	Benzo(a)pyrene	2018/11/07	93	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5825102	Benzo(b/j)fluoranthene	2018/11/07	97	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5825102	Benzo(g,h,i)perylene	2018/11/07	91	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5825102	Benzo(k)fluoranthene	2018/11/07	95	50 - 130	96	50 - 130	<0.0050	ug/g	NC	40
5825102	Chrysene	2018/11/07	99	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
5825102	Dibenz(a,h)anthracene	2018/11/07	90	50 - 130	92	50 - 130	<0.0050	ug/g	NC	40
5825102	Fluoranthene	2018/11/07	99	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
5825102	Fluorene	2018/11/07	94	50 - 130	94	50 - 130	<0.0050	ug/g	NC	40
5825102	Indeno(1,2,3-cd)pyrene	2018/11/07	93	50 - 130	99	50 - 130	<0.0050	ug/g	NC	40
5825102	Naphthalene	2018/11/07	92	50 - 130	95	50 - 130	<0.0050	ug/g	NC	40
5825102	Phenanthrene	2018/11/07	102	50 - 130	100	50 - 130	<0.0050	ug/g	NC	40
5825102	Pyrene	2018/11/07	101	50 - 130	103	50 - 130	<0.0050	ug/g	NC	40

N/A = Not Applicable

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

Anastassia Hamanov, Scientific Specialist

Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam
A Bureau Veritas Group Company

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP	Company Name:	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Mike Wilson	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court Toronto, ON	Address:	Project #: 181-11306-00 ph220	Rush TAT (Surcharges will be applied)
Phone: 416-798-0065 Fax: 416-798-0518	Phone: Fax:	Site Location: 958-960 East Ave.	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Email: michael.wilson@wsp.com	Email:	Site #:	Date Required:
		Sampled By: B.S.	Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153

[ ] Table 1 [X] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [X] Coarse
[X] Table 3 [ ] Agri/ Other
[ ] Table _____
FOR RSC (PLEASE CIRCLE) (Y) / N

Other Regulations

[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region _____
[ ] Other (Specify) _____
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REFER TO BACK OF COC: REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	PAHs	PCBs (total)						HOLD- DO NOT ANALYZE
1	BH18-1 SS1	2018/11/01	AM	Soil	1					X										
2	BH18-1 SS2	2018/11/01	AM	Soil	1								X							
3	BH18-1 SS3	2018/11/01	AM	Soil	3		X	X	X											
4	QAQC-1	2018/11/01	AM	Soil	1								X							
5	TP18-1 S1A	2018/11/02	AM	Soil	1									X						
6																				
7																				
8																				
9																				
10																				

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
✓	✓	9/10/10

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

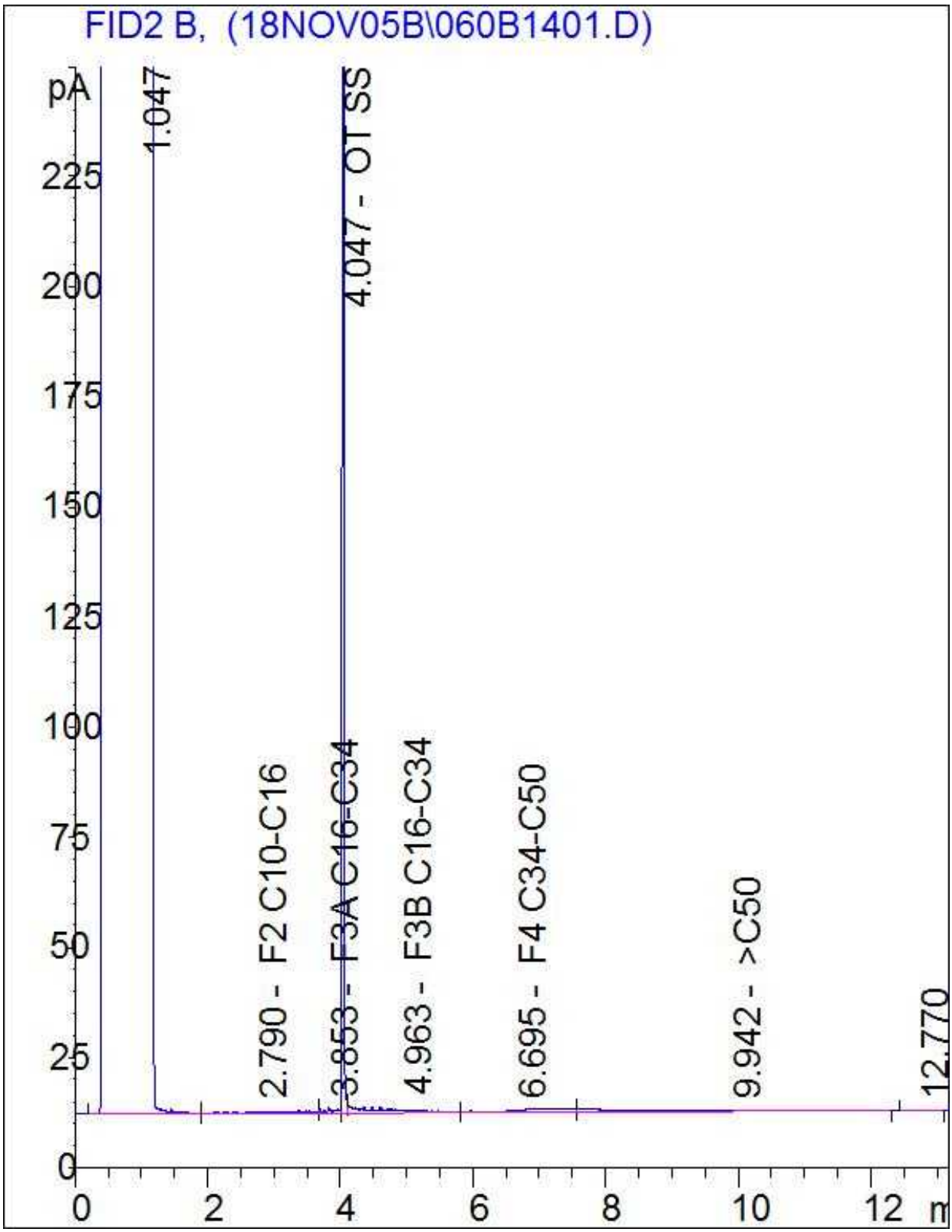
RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
John Gavin	2018/11/02	1:22PM		2018/11/02	13:23

02-Nov-18 13:23
Ashton Gibson
B8T2736
GUS ENV-1250

Maxxam Job #: B8T2736
Report Date: 2018/11/12
Maxxam Sample: IET109

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Project name: 958-960 EAST AVE.
Client ID: BH18-1 SS3

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



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

Maxxam Job #: B8T2736
Report Date: 2018/11/12

WSP Canada Inc
Client Project #: 181-11306-00 PH220
Site Location: 958-960 EAST AVE.
Sampler Initials: BS

Exceedence Summary Table – Reg153/04 T3-Soil/Res-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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APPENDIX

D-2 GROUNDWATER

Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00
Your C.O.C. #: 692229-01-01

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/29
Report #: R5504594
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8V1705
Received: 2018/11/21, 15:10

Sample Matrix: Water
Samples Received: 8

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
1,3-Dichloropropene Sum	7	N/A	2018/11/27		EPA 8260C m
Chloride by Automated Colourimetry	4	N/A	2018/11/26	CAM SOP-00463	EPA 325.2 m
Chromium (VI) in Water	4	N/A	2018/11/28	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	4	N/A	2018/11/26	CAM SOP-00457	OMOE E3015 m
Petroleum Hydro. CCME F1 & BTEX in Water	1	N/A	2018/11/28	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	5	2018/11/27	2018/11/28	CAM SOP-00316	CCME PHC-CWS m
Mercury	4	2018/11/27	2018/11/27	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	3	N/A	2018/11/26	CAM SOP-00447	EPA 6020B m
Dissolved Metals by ICPMS	1	N/A	2018/11/27	CAM SOP-00447	EPA 6020B m
Volatile Organic Compounds and F1 PHCs	4	N/A	2018/11/27	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds in Water	3	N/A	2018/11/26	CAM SOP-00228	EPA 8260C m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.

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

Your Project #: 181-11306-00
Your C.O.C. #: 692229-01-01

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/11/29
Report #: R5504594
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8V1705

Received: 2018/11/21, 15:10

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

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

Encryption Key

Ashton Gibson
Project Manager
29 Nov 2018 17:32:19

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID			IIY742		
Sampling Date			2018/11/21 14:00		
COC Number			692229-01-01		
	UNITS	Criteria	BH18-7	RDL	QC Batch
BTEX & F1 Hydrocarbons					
F1 (C6-C10)	ug/L	750	<25	25	5860643
F1 (C6-C10) - BTEX	ug/L	750	<25	25	5860643
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	-	101		5860643
4-Bromofluorobenzene	%	-	110		5860643
D10-Ethylbenzene	%	-	102		5860643
D4-1,2-Dichloroethane	%	-	93		5860643

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured So

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 METALS & INORGANICS PKG (WTR)

Maxxam ID			IIY735		IIY736		IIY738		IIY740		
Sampling Date			2018/11/21 09:00		2018/11/21 10:00		2018/11/21 11:00		2018/11/21 12:00		
COC Number			692229-01-01		692229-01-01		692229-01-01		692229-01-01		
	UNITS	Criteria	BH18-1S	RDL	BH18-2S	RDL	BH18-5	RDL	BH18-4	RDL	QC Batch
Inorganics											
WAD Cyanide (Free)	ug/L	66	<1	1	<1	1	<1	1	<1	1	5856228
Dissolved Chloride (Cl-)	mg/L	2300	1000	10	1500	15	1500	15	660	8.0	5854742
Metals											
Chromium (VI)	ug/L	140	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	5852403
Mercury (Hg)	ug/L	0.29	<0.1	0.1	<0.1	0.1	<0.1	0.1	<0.1	0.1	5858148
Dissolved Antimony (Sb)	ug/L	20000	0.93	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	5854506
Dissolved Arsenic (As)	ug/L	1900	2.1	1.0	1.0	1.0	<1.0	1.0	4.6	1.0	5854506
Dissolved Barium (Ba)	ug/L	29000	95	2.0	150	2.0	75	2.0	350	2.0	5854506
Dissolved Beryllium (Be)	ug/L	67	<0.50	0.50	<0.50	0.50	<0.50	0.50	<0.50	0.50	5854506
Dissolved Boron (B)	ug/L	45000	170	10	120	10	430	10	160	10	5854506
Dissolved Cadmium (Cd)	ug/L	2.7	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	5854506
Dissolved Chromium (Cr)	ug/L	810	<5.0	5.0	<5.0	5.0	<5.0	5.0	33	5.0	5854506
Dissolved Cobalt (Co)	ug/L	66	2.5	0.50	2.5	0.50	<0.50	0.50	54	0.50	5854506
Dissolved Copper (Cu)	ug/L	87	<1.0	1.0	2.7	1.0	<1.0	1.0	15	1.0	5854506
Dissolved Lead (Pb)	ug/L	25	<0.50	0.50	0.57	0.50	<0.50	0.50	5.5	0.50	5854506
Dissolved Molybdenum (Mo)	ug/L	9200	3.6	0.50	1.1	0.50	3.2	0.50	4.9	0.50	5854506
Dissolved Nickel (Ni)	ug/L	490	3.3	1.0	3.9	1.0	<1.0	1.0	11	1.0	5854506
Dissolved Selenium (Se)	ug/L	63	<2.0	2.0	<2.0	2.0	<2.0	2.0	<2.0	2.0	5854506
Dissolved Silver (Ag)	ug/L	1.5	<0.10	0.10	<0.10	0.10	<0.10	0.10	<0.10	0.10	5854506
Dissolved Sodium (Na)	ug/L	2300000	310000	100	570000	100	830000	500	230000	100	5854506
Dissolved Thallium (Tl)	ug/L	510	<0.050	0.050	<0.050	0.050	<0.050	0.050	<0.050	0.050	5854506
Dissolved Uranium (U)	ug/L	420	2.5	0.10	1.9	0.10	0.43	0.10	1.8	0.10	5854506
Dissolved Vanadium (V)	ug/L	250	0.83	0.50	1.4	0.50	<0.50	0.50	12	0.50	5854506
Dissolved Zinc (Zn)	ug/L	1100	<5.0	5.0	<5.0	5.0	<5.0	5.0	21	5.0	5854506

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 VOCS BY HS & F1-F4 (WATER)

Maxxam ID			IIY735	IIY736			IIY737		
Sampling Date			2018/11/21 09:00	2018/11/21 10:00			2018/11/21 09:00		
COC Number			692229-01-01	692229-01-01			692229-01-01		
	UNITS	Criteria	BH18-1S	BH18-2S	RDL	QC Batch	QAQC 18-2	RDL	QC Batch
Calculated Parameters									
1,3-Dichloropropene (cis+trans)	ug/L	5.2	<0.50	<0.50	0.50	5854075			
Volatile Organics									
Acetone (2-Propanone)	ug/L	130000	<10	<10	10	5855428			
Benzene	ug/L	44	<0.20	<0.20	0.20	5855428			
Bromodichloromethane	ug/L	85000	<0.50	<0.50	0.50	5855428			
Bromoform	ug/L	380	<1.0	<1.0	1.0	5855428			
Bromomethane	ug/L	5.6	<0.50	<0.50	0.50	5855428			
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	0.20	5855428			
Chlorobenzene	ug/L	630	<0.20	<0.20	0.20	5855428			
Chloroform	ug/L	2.4	<0.20	<0.20	0.20	5855428			
Dibromochloromethane	ug/L	82000	<0.50	<0.50	0.50	5855428			
1,2-Dichlorobenzene	ug/L	4600	<0.50	<0.50	0.50	5855428			
1,3-Dichlorobenzene	ug/L	9600	<0.50	<0.50	0.50	5855428			
1,4-Dichlorobenzene	ug/L	8	<0.50	<0.50	0.50	5855428			
Dichlorodifluoromethane (FREON 12)	ug/L	4400	<1.0	<1.0	1.0	5855428			
1,1-Dichloroethane	ug/L	320	<0.20	<0.20	0.20	5855428			
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	0.50	5855428			
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	0.20	5855428			
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	0.50	5855428			
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	0.50	5855428			
1,2-Dichloropropane	ug/L	16	<0.20	<0.20	0.20	5855428			
cis-1,3-Dichloropropene	ug/L	5.2	<0.30	<0.30	0.30	5855428			
trans-1,3-Dichloropropene	ug/L	5.2	<0.40	<0.40	0.40	5855428			
Ethylbenzene	ug/L	2300	<0.20	<0.20	0.20	5855428			
Ethylene Dibromide	ug/L	0.25	<0.20	<0.20	0.20	5855428			
Hexane	ug/L	51	<1.0	<1.0	1.0	5855428			
Methylene Chloride(Dichloromethane)	ug/L	610	<2.0	<2.0	2.0	5855428			
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	<10	10	5855428			
Methyl Isobutyl Ketone	ug/L	140000	<5.0	<5.0	5.0	5855428			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 VOCS BY HS & F1-F4 (WATER)

Maxxam ID			IIY735	IIY736			IIY737		
Sampling Date			2018/11/21 09:00	2018/11/21 10:00			2018/11/21 09:00		
COC Number			692229-01-01	692229-01-01			692229-01-01		
	UNITS	Criteria	BH18-1S	BH18-2S	RDL	QC Batch	QAQC 18-2	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/L	190	<0.50	<0.50	0.50	5855428			
Styrene	ug/L	1300	<0.50	<0.50	0.50	5855428			
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	<0.50	0.50	5855428			
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	<0.50	0.50	5855428			
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	0.20	5855428			
Toluene	ug/L	18000	<0.20	<0.20	0.20	5855428			
1,1,1-Trichloroethane	ug/L	640	<0.20	<0.20	0.20	5855428			
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	0.50	5855428			
Trichloroethylene	ug/L	1.6	<0.20	<0.20	0.20	5855428			
Trichlorofluoromethane (FREON 11)	ug/L	2500	<0.50	<0.50	0.50	5855428			
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	0.20	5855428			
p+m-Xylene	ug/L	-	<0.20	<0.20	0.20	5855428			
o-Xylene	ug/L	-	<0.20	<0.20	0.20	5855428			
Total Xylenes	ug/L	4200	<0.20	<0.20	0.20	5855428			
F1 (C6-C10)	ug/L	750	<25	<25	25	5855428			
F1 (C6-C10) - BTEX	ug/L	750	<25	<25	25	5855428			
F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	<100	100	5858318	<100	100	5858318
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	<200	200	5858318	<200	200	5858318
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	<200	200	5858318	<200	200	5858318
Reached Baseline at C50	ug/L	-	Yes	Yes		5858318	Yes		5858318
Surrogate Recovery (%)									
o-Terphenyl	%	-	94	95		5858318	90		5858318
4-Bromofluorobenzene	%	-	88	88		5855428			
D4-1,2-Dichloroethane	%	-	119	124		5855428			
D8-Toluene	%	-	91	91		5855428			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 VOCS BY HS & F1-F4 (WATER)

Maxxam ID			IIY738		IIY740		
Sampling Date			2018/11/21 11:00		2018/11/21 12:00		
COC Number			692229-01-01		692229-01-01		
	UNITS	Criteria	BH18-5	RDL	BH18-4	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	5.2	<0.50	0.50	<0.50	0.50	5854075
Volatile Organics							
Acetone (2-Propanone)	ug/L	130000	<10	10	<10	10	5855428
Benzene	ug/L	44	<0.20	0.20	<0.20	0.20	5855428
Bromodichloromethane	ug/L	85000	<0.50	0.50	<0.50	0.50	5855428
Bromoform	ug/L	380	<1.0	1.0	<1.0	1.0	5855428
Bromomethane	ug/L	5.6	<0.50	0.50	<0.50	0.50	5855428
Carbon Tetrachloride	ug/L	0.79	<0.20	0.20	<0.20	0.20	5855428
Chlorobenzene	ug/L	630	<0.20	0.20	<0.20	0.20	5855428
Chloroform	ug/L	2.4	<0.20	0.20	<0.20	0.20	5855428
Dibromochloromethane	ug/L	82000	<0.50	0.50	<0.50	0.50	5855428
1,2-Dichlorobenzene	ug/L	4600	<0.50	0.50	<0.50	0.50	5855428
1,3-Dichlorobenzene	ug/L	9600	<0.50	0.50	<0.50	0.50	5855428
1,4-Dichlorobenzene	ug/L	8	<0.50	0.50	<0.50	0.50	5855428
Dichlorodifluoromethane (FREON 12)	ug/L	4400	<1.0	1.0	<1.0	1.0	5855428
1,1-Dichloroethane	ug/L	320	<0.20	0.20	<0.20	0.20	5855428
1,2-Dichloroethane	ug/L	1.6	<0.50	0.50	<0.50	0.50	5855428
1,1-Dichloroethylene	ug/L	1.6	<0.20	0.20	<0.20	0.20	5855428
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	<0.50	0.50	5855428
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	0.50	<0.50	0.50	5855428
1,2-Dichloropropane	ug/L	16	<0.20	0.20	<0.20	0.20	5855428
cis-1,3-Dichloropropene	ug/L	5.2	<0.30	0.30	<0.30	0.30	5855428
trans-1,3-Dichloropropene	ug/L	5.2	<0.40	0.40	<0.40	0.40	5855428
Ethylbenzene	ug/L	2300	<0.20	0.20	<0.20	0.20	5855428
Ethylene Dibromide	ug/L	0.25	<0.20	0.20	<0.20	0.20	5855428
Hexane	ug/L	51	<1.0	1.0	<1.0	1.0	5855428
Methylene Chloride(Dichloromethane)	ug/L	610	<2.0	2.0	<2.0	2.0	5855428
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	10	<10	10	5855428

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)

Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition

Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 VOCS BY HS & F1-F4 (WATER)

Maxxam ID			IIY738		IIY740		
Sampling Date			2018/11/21 11:00		2018/11/21 12:00		
COC Number			692229-01-01		692229-01-01		
	UNITS	Criteria	BH18-5	RDL	BH18-4	RDL	QC Batch
Methyl Isobutyl Ketone	ug/L	140000	<5.0	5.0	<5.0	5.0	5855428
Methyl t-butyl ether (MTBE)	ug/L	190	<0.50	0.50	<0.50	0.50	5855428
Styrene	ug/L	1300	<0.50	0.50	<0.50	0.50	5855428
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	0.50	<0.50	0.50	5855428
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	0.50	<0.50	0.50	5855428
Tetrachloroethylene	ug/L	1.6	<0.20	0.20	<0.20	0.20	5855428
Toluene	ug/L	18000	<0.20	0.20	<0.20	0.20	5855428
1,1,1-Trichloroethane	ug/L	640	<0.20	0.20	<0.20	0.20	5855428
1,1,2-Trichloroethane	ug/L	4.7	<0.50	0.50	<0.50	0.50	5855428
Trichloroethylene	ug/L	1.6	<0.20	0.20	<0.20	0.20	5855428
Trichlorofluoromethane (FREON 11)	ug/L	2500	<0.50	0.50	<0.50	0.50	5855428
Vinyl Chloride	ug/L	0.5	<0.20	0.20	<0.20	0.20	5855428
p+m-Xylene	ug/L	-	<0.20	0.20	<0.20	0.20	5855428
o-Xylene	ug/L	-	<0.20	0.20	<0.20	0.20	5855428
Total Xylenes	ug/L	4200	<0.20	0.20	<0.20	0.20	5855428
F1 (C6-C10)	ug/L	750	<25	25	<25	25	5855428
F1 (C6-C10) - BTEX	ug/L	750	<25	25	<25	25	5855428
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	150	<100	100	**170**	110	5858318
F3 (C16-C34 Hydrocarbons)	ug/L	500	<200	200	<220	220	5858318
F4 (C34-C50 Hydrocarbons)	ug/L	500	<200	200	<220	220	5858318
Reached Baseline at C50	ug/L	-	Yes		Yes		5858318
Surrogate Recovery (%)							
o-Terphenyl	%	-	99		95		5858318
4-Bromofluorobenzene	%	-	88		89		5855428
D4-1,2-Dichloroethane	%	-	123		120		5855428
D8-Toluene	%	-	92		92		5855428

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

O.REG 153 VOCS BY HS (WATER)

Maxxam ID			IIY739	IIY741		IIY742		
Sampling Date			2018/11/21 11:00	2018/11/21		2018/11/21 14:00		
COC Number			692229-01-01	692229-01-01		692229-01-01		
	UNITS	Criteria	QAQC18-1	TRIP BLANK	QC Batch	BH18-7	RDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	5.2	<0.50	<0.50	5854075	<0.50	0.50	5853666
Volatile Organics								
Acetone (2-Propanone)	ug/L	130000	<10	<10	5853237	<10	10	5853237
Benzene	ug/L	44	<0.20	<0.20	5853237	1.1	0.20	5853237
Bromodichloromethane	ug/L	85000	<0.50	<0.50	5853237	<0.50	0.50	5853237
Bromoform	ug/L	380	<1.0	<1.0	5853237	<1.0	1.0	5853237
Bromomethane	ug/L	5.6	<0.50	<0.50	5853237	<0.50	0.50	5853237
Carbon Tetrachloride	ug/L	0.79	<0.20	<0.20	5853237	<0.20	0.20	5853237
Chlorobenzene	ug/L	630	<0.20	<0.20	5853237	<0.20	0.20	5853237
Chloroform	ug/L	2.4	<0.20	<0.20	5853237	<0.20	0.20	5853237
Dibromochloromethane	ug/L	82000	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,2-Dichlorobenzene	ug/L	4600	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,3-Dichlorobenzene	ug/L	9600	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,4-Dichlorobenzene	ug/L	8	<0.50	<0.50	5853237	<0.50	0.50	5853237
Dichlorodifluoromethane (FREON 12)	ug/L	4400	<1.0	<1.0	5853237	<1.0	1.0	5853237
1,1-Dichloroethane	ug/L	320	<0.20	<0.20	5853237	<0.20	0.20	5853237
1,2-Dichloroethane	ug/L	1.6	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,1-Dichloroethylene	ug/L	1.6	<0.20	<0.20	5853237	<0.20	0.20	5853237
cis-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	5853237	<0.50	0.50	5853237
trans-1,2-Dichloroethylene	ug/L	1.6	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,2-Dichloropropane	ug/L	16	<0.20	<0.20	5853237	<0.20	0.20	5853237
cis-1,3-Dichloropropene	ug/L	5.2	<0.30	<0.30	5853237	<0.30	0.30	5853237
trans-1,3-Dichloropropene	ug/L	5.2	<0.40	<0.40	5853237	<0.40	0.40	5853237
Ethylbenzene	ug/L	2300	<0.20	<0.20	5853237	<0.20	0.20	5853237
Ethylene Dibromide	ug/L	0.25	<0.20	<0.20	5853237	<0.20	0.20	5853237
Hexane	ug/L	51	<1.0	<1.0	5853237	<1.0	1.0	5853237
Methylene Chloride(Dichloromethane)	ug/L	610	<2.0	<2.0	5853237	<2.0	2.0	5853237
Methyl Ethyl Ketone (2-Butanone)	ug/L	470000	<10	<10	5853237	<10	10	5853237
Methyl Isobutyl Ketone	ug/L	140000	<5.0	<5.0	5853237	<5.0	5.0	5853237

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

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O.REG 153 VOCS BY HS (WATER)

Maxxam ID			IIY739	IIY741		IIY742		
Sampling Date			2018/11/21 11:00	2018/11/21		2018/11/21 14:00		
COC Number			692229-01-01	692229-01-01		692229-01-01		
	UNITS	Criteria	QAQC18-1	TRIP BLANK	QC Batch	BH18-7	RDL	QC Batch
Methyl t-butyl ether (MTBE)	ug/L	190	<0.50	<0.50	5853237	<0.50	0.50	5853237
Styrene	ug/L	1300	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,1,1,2-Tetrachloroethane	ug/L	3.3	<0.50	<0.50	5853237	<0.50	0.50	5853237
1,1,2,2-Tetrachloroethane	ug/L	3.2	<0.50	<0.50	5853237	<0.50	0.50	5853237
Tetrachloroethylene	ug/L	1.6	<0.20	<0.20	5853237	<0.20	0.20	5853237
Toluene	ug/L	18000	<0.20	<0.20	5853237	0.35	0.20	5853237
1,1,1-Trichloroethane	ug/L	640	<0.20	<0.20	5853237	<0.20	0.20	5853237
1,1,2-Trichloroethane	ug/L	4.7	<0.50	<0.50	5853237	<0.50	0.50	5853237
Trichloroethylene	ug/L	1.6	<0.20	<0.20	5853237	<0.20	0.20	5853237
Trichlorofluoromethane (FREON 11)	ug/L	2500	<0.50	<0.50	5853237	<0.50	0.50	5853237
Vinyl Chloride	ug/L	0.5	<0.20	<0.20	5853237	<0.20	0.20	5853237
p+m-Xylene	ug/L	-	<0.20	<0.20	5853237	<0.20	0.20	5853237
o-Xylene	ug/L	-	<0.20	<0.20	5853237	<0.20	0.20	5853237
Total Xylenes	ug/L	4200	<0.20	<0.20	5853237	<0.20	0.20	5853237
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	-	75	74	5853237	75		5853237
D4-1,2-Dichloroethane	%	-	105	106	5853237	105		5853237
D8-Toluene	%	-	94	95	5853237	94		5853237

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

TEST SUMMARY

Maxxam ID: IIY735
Sample ID: BH18-1S
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	5854742	N/A	2018/11/26	Deonarine Ramnarine
Chromium (VI) in Water	IC	5852403	N/A	2018/11/28	Sally Norouz
Free (WAD) Cyanide	SKAL/CN	5856228	N/A	2018/11/26	Xuanhong Qiu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa
Mercury	CV/AA	5858148	2018/11/27	2018/11/27	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	5854506	N/A	2018/11/26	Matthew Ritenburg
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5855428	N/A	2018/11/27	Manpreet Sarao

Maxxam ID: IIY736
Sample ID: BH18-2S
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	5854742	N/A	2018/11/26	Deonarine Ramnarine
Chromium (VI) in Water	IC	5852403	N/A	2018/11/28	Sally Norouz
Free (WAD) Cyanide	SKAL/CN	5856228	N/A	2018/11/26	Xuanhong Qiu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa
Mercury	CV/AA	5858148	2018/11/27	2018/11/27	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	5854506	N/A	2018/11/26	Matthew Ritenburg
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5855428	N/A	2018/11/27	Manpreet Sarao

Maxxam ID: IIY737
Sample ID: QAQC 18-2
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa

Maxxam ID: IIY737 Dup
Sample ID: QAQC 18-2
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa

Maxxam ID: IIY738
Sample ID: BH18-5
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	5854742	N/A	2018/11/26	Deonarine Ramnarine
Chromium (VI) in Water	IC	5852403	N/A	2018/11/28	Sally Norouz
Free (WAD) Cyanide	SKAL/CN	5856228	N/A	2018/11/26	Xuanhong Qiu

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

TEST SUMMARY

Maxxam ID: IIY738
Sample ID: BH18-5
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa
Mercury	CV/AA	5858148	2018/11/27	2018/11/27	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	5854506	N/A	2018/11/27	Matthew Ritenburg
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5855428	N/A	2018/11/27	Manpreet Sarao

Maxxam ID: IIY739
Sample ID: QAQC18-1
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	5853237	N/A	2018/11/26	Blair Gannon

Maxxam ID: IIY740
Sample ID: BH18-4
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Chloride by Automated Colourimetry	KONE	5854742	N/A	2018/11/26	Deonarine Ramnarine
Chromium (VI) in Water	IC	5852403	N/A	2018/11/28	Sally Norouz
Free (WAD) Cyanide	SKAL/CN	5856228	N/A	2018/11/26	Xuanhong Qiu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5858318	2018/11/27	2018/11/28	Dorina Popa
Mercury	CV/AA	5858148	2018/11/27	2018/11/27	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	5854506	N/A	2018/11/26	Matthew Ritenburg
Volatile Organic Compounds and F1 PHCs	GC/MSFD	5855428	N/A	2018/11/27	Manpreet Sarao

Maxxam ID: IIY741
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5854075	N/A	2018/11/27	Automated Statchk
Volatile Organic Compounds in Water	GC/MS	5853237	N/A	2018/11/26	Blair Gannon

Maxxam ID: IIY742
Sample ID: BH18-7
Matrix: Water

Collected: 2018/11/21
Shipped:
Received: 2018/11/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	5853666	N/A	2018/11/27	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5860643	N/A	2018/11/28	Joe Paino
Volatile Organic Compounds in Water	GC/MS	5853237	N/A	2018/11/26	Blair Gannon

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GENERAL COMMENTS

All 250mL amber glass bottles for F2-F4 analysis contained visible sediment, which was included in the extraction.
All 40mL vials for F1BTEX and VOC analyses contained visible sediment.
All 125mL plastic bottles for chromium VI and cyanide analyses contained visible sediment, the 100mL clear glass bottles for mercury analysis contained visible sediment, the 500mL plastic bottles for chloride analysis contained visible sediment.

Sample IIY740 [BH18-4] : F2-F4 Analysis: Due to limited amount of sample available for analyses, a smaller than usual portion of the sample was used. Reporting limits were adjusted accordingly.

Results relate only to the items tested.

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Maxxam Job #: B8V1705
Report Date: 2018/11/29

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5853237	4-Bromofluorobenzene	2018/11/26	80	70 - 130	80	70 - 130	78	%		
5853237	D4-1,2-Dichloroethane	2018/11/26	102	70 - 130	98	70 - 130	100	%		
5853237	D8-Toluene	2018/11/26	101	70 - 130	101	70 - 130	95	%		
5855428	4-Bromofluorobenzene	2018/11/26	99	70 - 130	100	70 - 130	90	%		
5855428	D4-1,2-Dichloroethane	2018/11/26	116	70 - 130	111	70 - 130	119	%		
5855428	D8-Toluene	2018/11/26	103	70 - 130	103	70 - 130	92	%		
5858318	o-Terphenyl	2018/11/28	113	60 - 130	103	60 - 130	96	%		
5860643	1,4-Difluorobenzene	2018/11/28	94	70 - 130	101	70 - 130	102	%		
5860643	4-Bromofluorobenzene	2018/11/28	118	70 - 130	110	70 - 130	110	%		
5860643	D10-Ethylbenzene	2018/11/28	95	70 - 130	105	70 - 130	99	%		
5860643	D4-1,2-Dichloroethane	2018/11/28	109	70 - 130	96	70 - 130	98	%		
5852403	Chromium (VI)	2018/11/28	102	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
5853237	1,1,1,2-Tetrachloroethane	2018/11/26	106	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
5853237	1,1,1-Trichloroethane	2018/11/26	106	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	1,1,2,2-Tetrachloroethane	2018/11/26	109	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
5853237	1,1,2-Trichloroethane	2018/11/26	106	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
5853237	1,1-Dichloroethane	2018/11/26	108	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	1,1-Dichloroethylene	2018/11/26	107	70 - 130	107	70 - 130	<0.20	ug/L	NC	30
5853237	1,2-Dichlorobenzene	2018/11/26	103	70 - 130	101	70 - 130	<0.50	ug/L	NC	30
5853237	1,2-Dichloroethane	2018/11/26	108	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
5853237	1,2-Dichloropropane	2018/11/26	108	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	1,3-Dichlorobenzene	2018/11/26	103	70 - 130	102	70 - 130	<0.50	ug/L	NC	30
5853237	1,4-Dichlorobenzene	2018/11/26	103	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
5853237	Acetone (2-Propanone)	2018/11/26	110	60 - 140	102	60 - 140	<10	ug/L	NC	30
5853237	Benzene	2018/11/26	107	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
5853237	Bromodichloromethane	2018/11/26	107	70 - 130	104	70 - 130	<0.50	ug/L	NC	30
5853237	Bromoform	2018/11/26	107	70 - 130	102	70 - 130	<1.0	ug/L	NC	30
5853237	Bromomethane	2018/11/26	118	60 - 140	110	60 - 140	<0.50	ug/L	NC	30
5853237	Carbon Tetrachloride	2018/11/26	105	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	Chlorobenzene	2018/11/26	105	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
5853237	Chloroform	2018/11/26	108	70 - 130	106	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5853237	cis-1,2-Dichloroethylene	2018/11/26	109	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
5853237	cis-1,3-Dichloropropene	2018/11/26	110	70 - 130	102	70 - 130	<0.30	ug/L	NC	30
5853237	Dibromochloromethane	2018/11/26	104	70 - 130	100	70 - 130	<0.50	ug/L	NC	30
5853237	Dichlorodifluoromethane (FREON 12)	2018/11/26	127	60 - 140	127	60 - 140	<1.0	ug/L	NC	30
5853237	Ethylbenzene	2018/11/26	104	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
5853237	Ethylene Dibromide	2018/11/26	109	70 - 130	102	70 - 130	<0.20	ug/L	NC	30
5853237	Hexane	2018/11/26	111	70 - 130	111	70 - 130	<1.0	ug/L	NC	30
5853237	Methyl Ethyl Ketone (2-Butanone)	2018/11/26	112	60 - 140	104	60 - 140	<10	ug/L	NC	30
5853237	Methyl Isobutyl Ketone	2018/11/26	113	70 - 130	108	70 - 130	<5.0	ug/L	NC	30
5853237	Methyl t-butyl ether (MTBE)	2018/11/26	104	70 - 130	103	70 - 130	<0.50	ug/L	NC	30
5853237	Methylene Chloride(Dichloromethane)	2018/11/26	117	70 - 130	113	70 - 130	<2.0	ug/L	NC	30
5853237	o-Xylene	2018/11/26	103	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
5853237	p+m-Xylene	2018/11/26	105	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	Styrene	2018/11/26	109	70 - 130	109	70 - 130	<0.50	ug/L	NC	30
5853237	Tetrachloroethylene	2018/11/26	105	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
5853237	Toluene	2018/11/26	101	70 - 130	100	70 - 130	<0.20	ug/L	NC	30
5853237	Total Xylenes	2018/11/26					<0.20	ug/L	NC	30
5853237	trans-1,2-Dichloroethylene	2018/11/26	108	70 - 130	107	70 - 130	<0.50	ug/L	NC	30
5853237	trans-1,3-Dichloropropene	2018/11/26	99	70 - 130	87	70 - 130	<0.40	ug/L	NC	30
5853237	Trichloroethylene	2018/11/26	107	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5853237	Trichlorofluoromethane (FREON 11)	2018/11/26	110	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
5853237	Vinyl Chloride	2018/11/26	120	70 - 130	119	70 - 130	<0.20	ug/L	NC	30
5854506	Dissolved Antimony (Sb)	2018/11/26	113	80 - 120	103	80 - 120	<0.50	ug/L		
5854506	Dissolved Arsenic (As)	2018/11/26	104	80 - 120	98	80 - 120	<1.0	ug/L		
5854506	Dissolved Barium (Ba)	2018/11/26	99	80 - 120	100	80 - 120	<2.0	ug/L		
5854506	Dissolved Beryllium (Be)	2018/11/26	102	80 - 120	98	80 - 120	<0.50	ug/L		
5854506	Dissolved Boron (B)	2018/11/26	98	80 - 120	97	80 - 120	<10	ug/L		
5854506	Dissolved Cadmium (Cd)	2018/11/26	105	80 - 120	99	80 - 120	<0.10	ug/L		
5854506	Dissolved Chromium (Cr)	2018/11/28	98	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
5854506	Dissolved Cobalt (Co)	2018/11/26	98	80 - 120	96	80 - 120	<0.50	ug/L		
5854506	Dissolved Copper (Cu)	2018/11/26	103	80 - 120	96	80 - 120	<1.0	ug/L		

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5854506	Dissolved Lead (Pb)	2018/11/26	95	80 - 120	93	80 - 120	<0.50	ug/L		
5854506	Dissolved Molybdenum (Mo)	2018/11/26	111	80 - 120	99	80 - 120	<0.50	ug/L		
5854506	Dissolved Nickel (Ni)	2018/11/26	95	80 - 120	95	80 - 120	<1.0	ug/L		
5854506	Dissolved Selenium (Se)	2018/11/26	101	80 - 120	97	80 - 120	<2.0	ug/L		
5854506	Dissolved Silver (Ag)	2018/11/26	80	80 - 120	95	80 - 120	<0.10	ug/L		
5854506	Dissolved Sodium (Na)	2018/11/26	NC	80 - 120	92	80 - 120	<100	ug/L		
5854506	Dissolved Thallium (Tl)	2018/11/26	95	80 - 120	93	80 - 120	<0.050	ug/L		
5854506	Dissolved Uranium (U)	2018/11/26	99	80 - 120	95	80 - 120	<0.10	ug/L		
5854506	Dissolved Vanadium (V)	2018/11/26	101	80 - 120	97	80 - 120	<0.50	ug/L		
5854506	Dissolved Zinc (Zn)	2018/11/26	97	80 - 120	96	80 - 120	<5.0	ug/L		
5854742	Dissolved Chloride (Cl-)	2018/11/26	NC	80 - 120	104	80 - 120	<1.0	mg/L	0.68	20
5855428	1,1,1,2-Tetrachloroethane	2018/11/26	112	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
5855428	1,1,1-Trichloroethane	2018/11/26	105	70 - 130	108	70 - 130	<0.20	ug/L	NC	30
5855428	1,1,2,2-Tetrachloroethane	2018/11/26	119	70 - 130	113	70 - 130	<0.50	ug/L	NC	30
5855428	1,1,2-Trichloroethane	2018/11/26	110	70 - 130	105	70 - 130	<0.50	ug/L	NC	30
5855428	1,1-Dichloroethane	2018/11/26	108	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
5855428	1,1-Dichloroethylene	2018/11/26	101	70 - 130	103	70 - 130	<0.20	ug/L	NC	30
5855428	1,2-Dichlorobenzene	2018/11/26	99	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
5855428	1,2-Dichloroethane	2018/11/26	112	70 - 130	109	70 - 130	<0.50	ug/L	NC	30
5855428	1,2-Dichloropropane	2018/11/26	106	70 - 130	106	70 - 130	<0.20	ug/L	NC	30
5855428	1,3-Dichlorobenzene	2018/11/26	95	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
5855428	1,4-Dichlorobenzene	2018/11/26	94	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
5855428	Acetone (2-Propanone)	2018/11/26	115	60 - 140	110	60 - 140	<10	ug/L	NC	30
5855428	Benzene	2018/11/26	106	70 - 130	105	70 - 130	<0.20	ug/L	NC	30
5855428	Bromodichloromethane	2018/11/26	109	70 - 130	108	70 - 130	<0.50	ug/L	1.9	30
5855428	Bromoform	2018/11/26	118	70 - 130	113	70 - 130	<1.0	ug/L	NC	30
5855428	Bromomethane	2018/11/26	120	60 - 140	120	60 - 140	<0.50	ug/L	NC	30
5855428	Carbon Tetrachloride	2018/11/26	107	70 - 130	109	70 - 130	<0.20	ug/L	NC	30
5855428	Chlorobenzene	2018/11/26	98	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
5855428	Chloroform	2018/11/26	108	70 - 130	109	70 - 130	<0.20	ug/L	2.7	30
5855428	cis-1,2-Dichloroethylene	2018/11/26	110	70 - 130	109	70 - 130	<0.50	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5855428	cis-1,3-Dichloropropene	2018/11/26	93	70 - 130	88	70 - 130	<0.30	ug/L	NC	30
5855428	Dibromochloromethane	2018/11/26	129	70 - 130	125	70 - 130	<0.50	ug/L	23	30
5855428	Dichlorodifluoromethane (FREON 12)	2018/11/26	130	60 - 140	134	60 - 140	<1.0	ug/L	NC	30
5855428	Ethylbenzene	2018/11/26	86	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
5855428	Ethylene Dibromide	2018/11/26	118	70 - 130	111	70 - 130	<0.20	ug/L	NC	30
5855428	F1 (C6-C10) - BTEX	2018/11/26					<25	ug/L	NC	30
5855428	F1 (C6-C10)	2018/11/26	86	60 - 140	87	60 - 140	<25	ug/L	NC	30
5855428	Hexane	2018/11/26	94	70 - 130	98	70 - 130	<1.0	ug/L	NC	30
5855428	Methyl Ethyl Ketone (2-Butanone)	2018/11/26	118	60 - 140	112	60 - 140	<10	ug/L	NC	30
5855428	Methyl Isobutyl Ketone	2018/11/26	106	70 - 130	103	70 - 130	<5.0	ug/L	NC	30
5855428	Methyl t-butyl ether (MTBE)	2018/11/26	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
5855428	Methylene Chloride(Dichloromethane)	2018/11/26	126	70 - 130	125	70 - 130	<2.0	ug/L	NC	30
5855428	o-Xylene	2018/11/26	86	70 - 130	88	70 - 130	<0.20	ug/L	NC	30
5855428	p+m-Xylene	2018/11/26	82	70 - 130	83	70 - 130	<0.20	ug/L	NC	30
5855428	Styrene	2018/11/26	92	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
5855428	Tetrachloroethylene	2018/11/26	107	70 - 130	110	70 - 130	<0.20	ug/L	NC	30
5855428	Toluene	2018/11/26	104	70 - 130	104	70 - 130	<0.20	ug/L	NC	30
5855428	Total Xylenes	2018/11/26					<0.20	ug/L	NC	30
5855428	trans-1,2-Dichloroethylene	2018/11/26	107	70 - 130	110	70 - 130	<0.50	ug/L	NC	30
5855428	trans-1,3-Dichloropropene	2018/11/26	104	70 - 130	95	70 - 130	<0.40	ug/L	NC	30
5855428	Trichloroethylene	2018/11/26	106	70 - 130	108	70 - 130	<0.20	ug/L	NC	30
5855428	Trichlorofluoromethane (FREON 11)	2018/11/26	114	70 - 130	116	70 - 130	<0.50	ug/L	NC	30
5855428	Vinyl Chloride	2018/11/26	116	70 - 130	118	70 - 130	<0.20	ug/L	NC	30
5856228	WAD Cyanide (Free)	2018/11/26	106	80 - 120	101	80 - 120	<1	ug/L	0	20
5858148	Mercury (Hg)	2018/11/27	86	75 - 125	89	80 - 120	<0.1	ug/L	NC	20
5858318	F2 (C10-C16 Hydrocarbons)	2018/11/28	109	50 - 130	87	60 - 130	<100	ug/L	NC	30
5858318	F3 (C16-C34 Hydrocarbons)	2018/11/28	108	50 - 130	97	60 - 130	<200	ug/L	NC	30
5858318	F4 (C34-C50 Hydrocarbons)	2018/11/28	106	50 - 130	93	60 - 130	<200	ug/L	NC	30
5860643	F1 (C6-C10) - BTEX	2018/11/28					<25	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5860643	F1 (C6-C10)	2018/11/28	101	70 - 130	101	70 - 130	<25	ug/L	NC	30

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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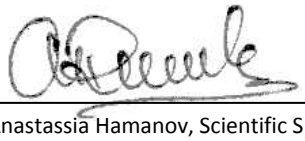
Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Affix Lab Label Here

Presence of Visible Particulate/Sediment

Maxxam Analytics
CAM FCD-01013/5

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

			Bottle Types																														
			Inorganics					Organics											Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	BH18-15	TS																															
2	BH-2S	TS																															
3	BH18-5	TS																															
4	QAQC18-1	TS																															
5	BH18-4	TS																															
6	BH18-7 CA 18/11/24	~~S~~																								3cm	5cm	0cm					
7																																	
8																																	
9																																	
10																																	

Comments: Except metals

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) Cynthia Ortiz Cynthia Ortiz

Maxxam Analytics International Corporation o/a Maxxam Analytics
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.maxxam.ca

CHAIN OF CUSTODY RECORD

Page 1 of 1

"INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#23879 WSP Canada Inc	Company Name:		Quotation #:	B62738	Maxxam Job #:	Bottle Order #:
Attention:	Accounts Payable	Attention:	Michael Wilson	P.O. #:			692229
Address:	51 Constellation Court Toronto ON M9W 1K4	Address:		Project:	181-11306-00	COC #:	Project Manager:
Tel:	(416) 798-0065 Fax: (905) 550-2288	Tel:	(416) 798-0065 Ext: 250 Fax:	Project Name:		C#692229-01-01	Ashton Gibson
Email:	payables.ontario@wsp.com	Email:	michael.wilson@wsp.com	Site #:			
				Sampled By:	Kate M'Ateer		

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☒ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☒ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☒ Table 3 ☐ Agri/Other ☒ For RSC	☐ MISA Municipality ____	
☐ Table ____	☐ PWQO	
	☐ Other ____	

Include Criteria on Certificate of Analysis (Y/N)? Y

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects.

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Metals & Inorganics Pkg	VOCs by HS & F1-F4	Peel Sanitary & Storm Pkg (53-2010)	VOC	F2-F4					# of Bottles	Comments
1		BH18-1S	Nov 21/18	9am	GW	Y	X	X								10	
2		BH18-2S		10am		Y	X	X								10	
3		~~BH18-3~~ QAQC 18-2		9am		Y					X					3	
4		BH18-5		11am		Y	X	X								10	
5		QAQC18-1		11am		Y				X						2	
6		BH18-4		12pm		Y	X	X								10	
7		Trip Blank	Nov 21/18	/	GW					X						3	
8		BH18-7	Nov 21/18	2pm	GW						X					3	
9																	
10																	

21-Nov-18 15:10
Ashton Gibson
B8V1705
CA2 ENV-709

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
Kate M'Ateer	18/11/21	1507		2018/11/21	15:10		Time Sensitive	Temperature (°C) on Recei: 7.5 4	Custody Seal Present / Intact	Yes / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO MAXXAM'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.MAXXAM.CA/TERMS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT HTTP://MAXXAM.CA/WP-CONTENT/UPLOADS/ONTARIO-COC.PDF.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

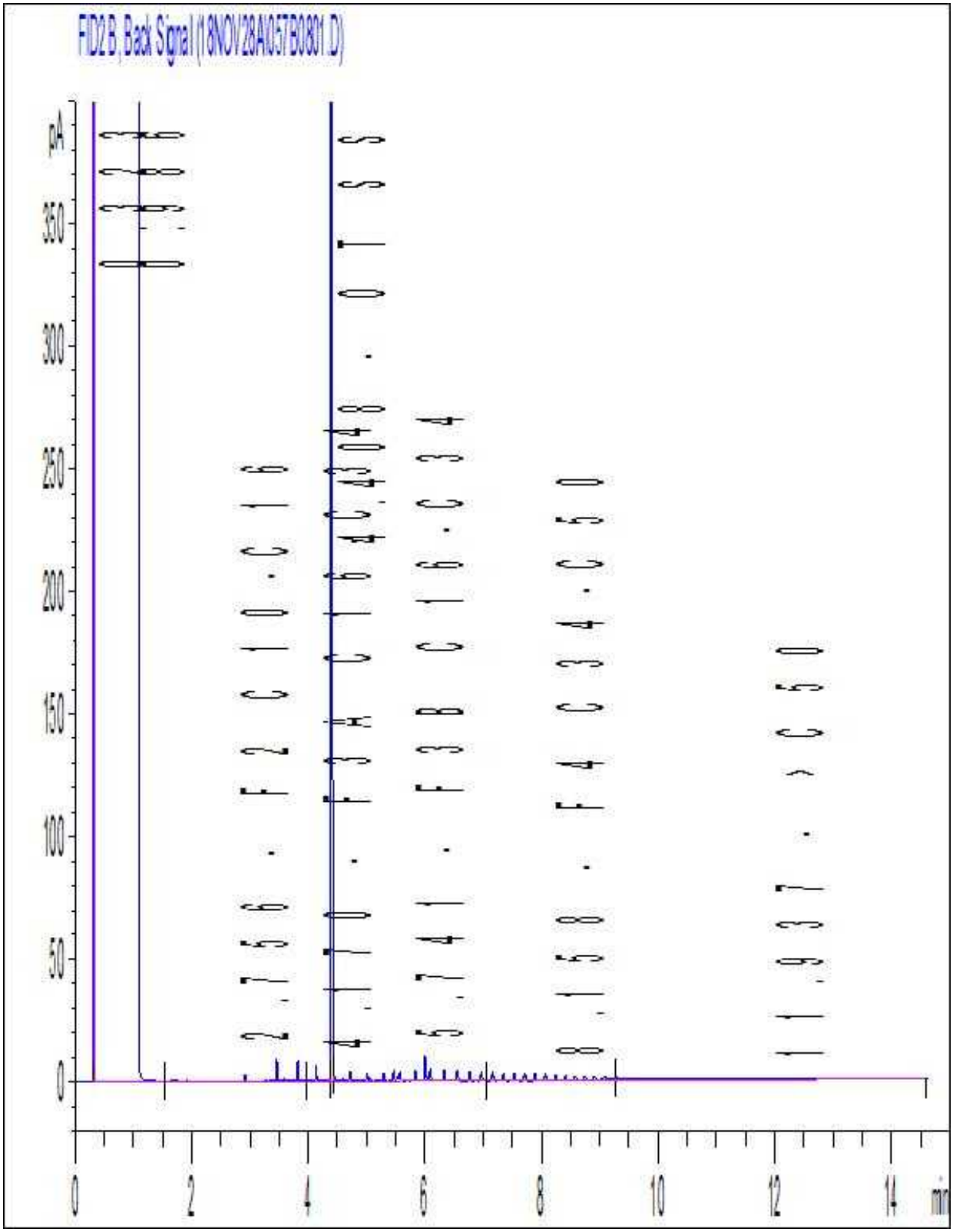
White: Maxxa Yellow: Client

Maxxam Analytics International Corporation o/a Maxxam Analytics

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY735

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: BH18-1S

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

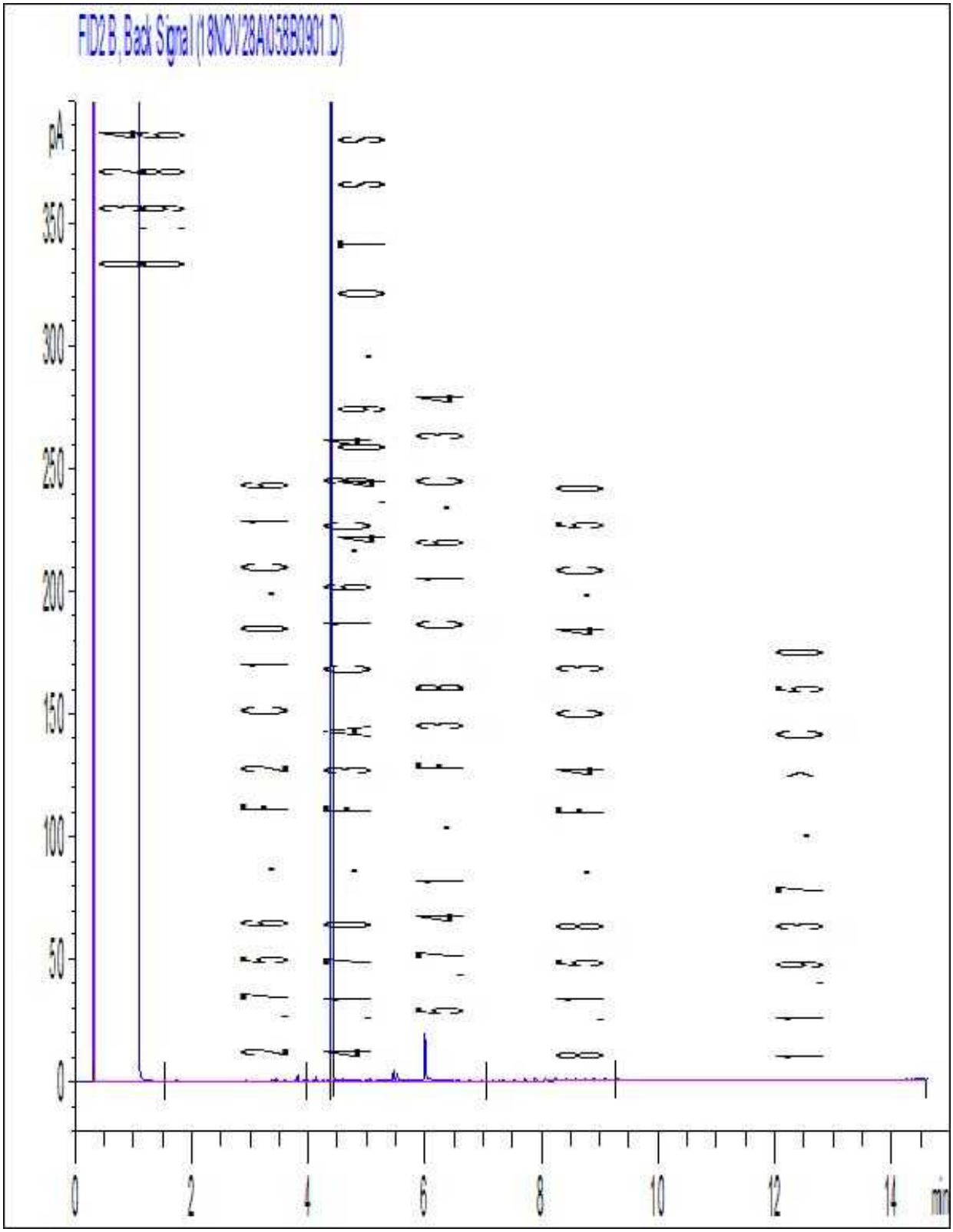


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY736

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: BH18-2S

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

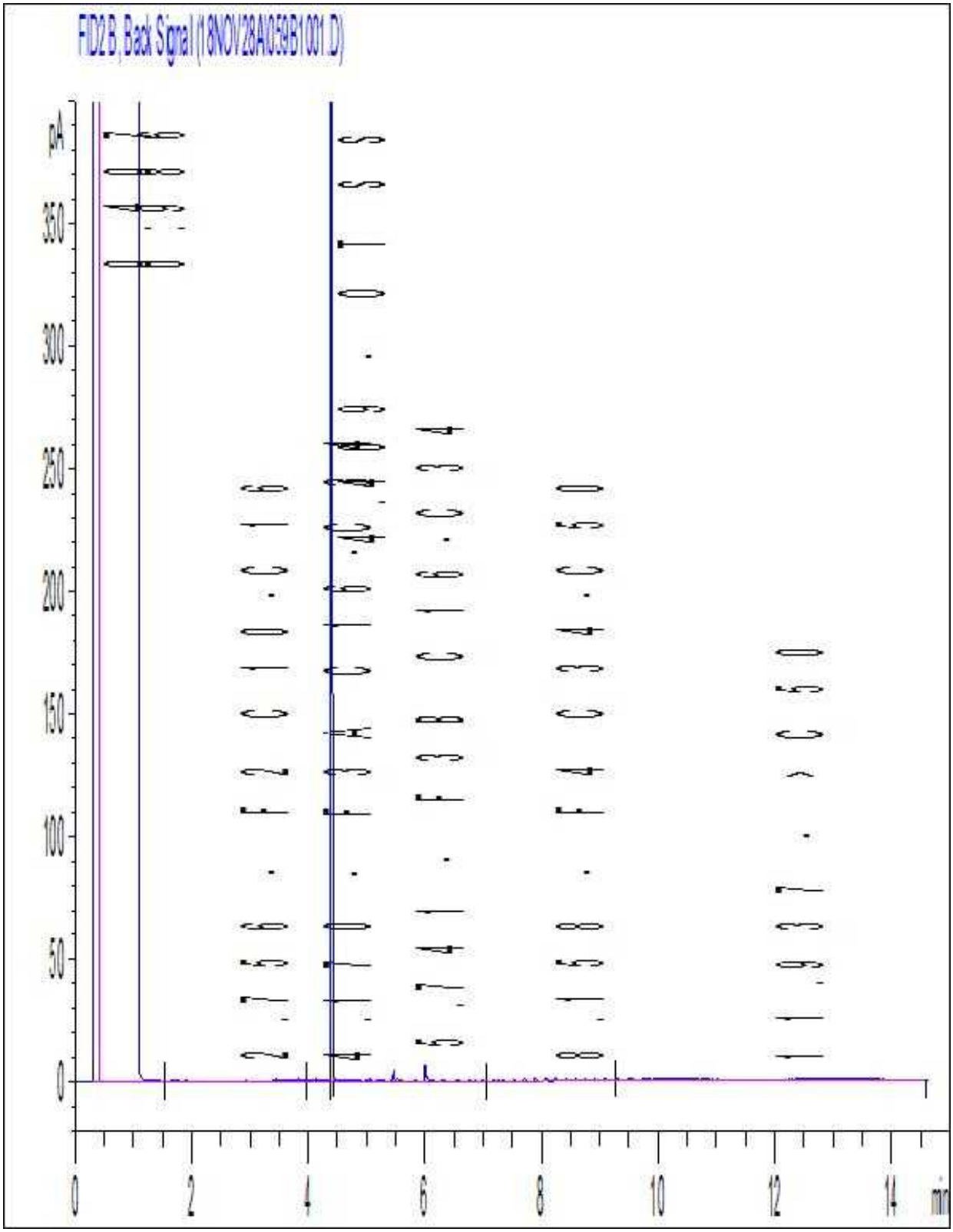


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY737

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: QAQC 18-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

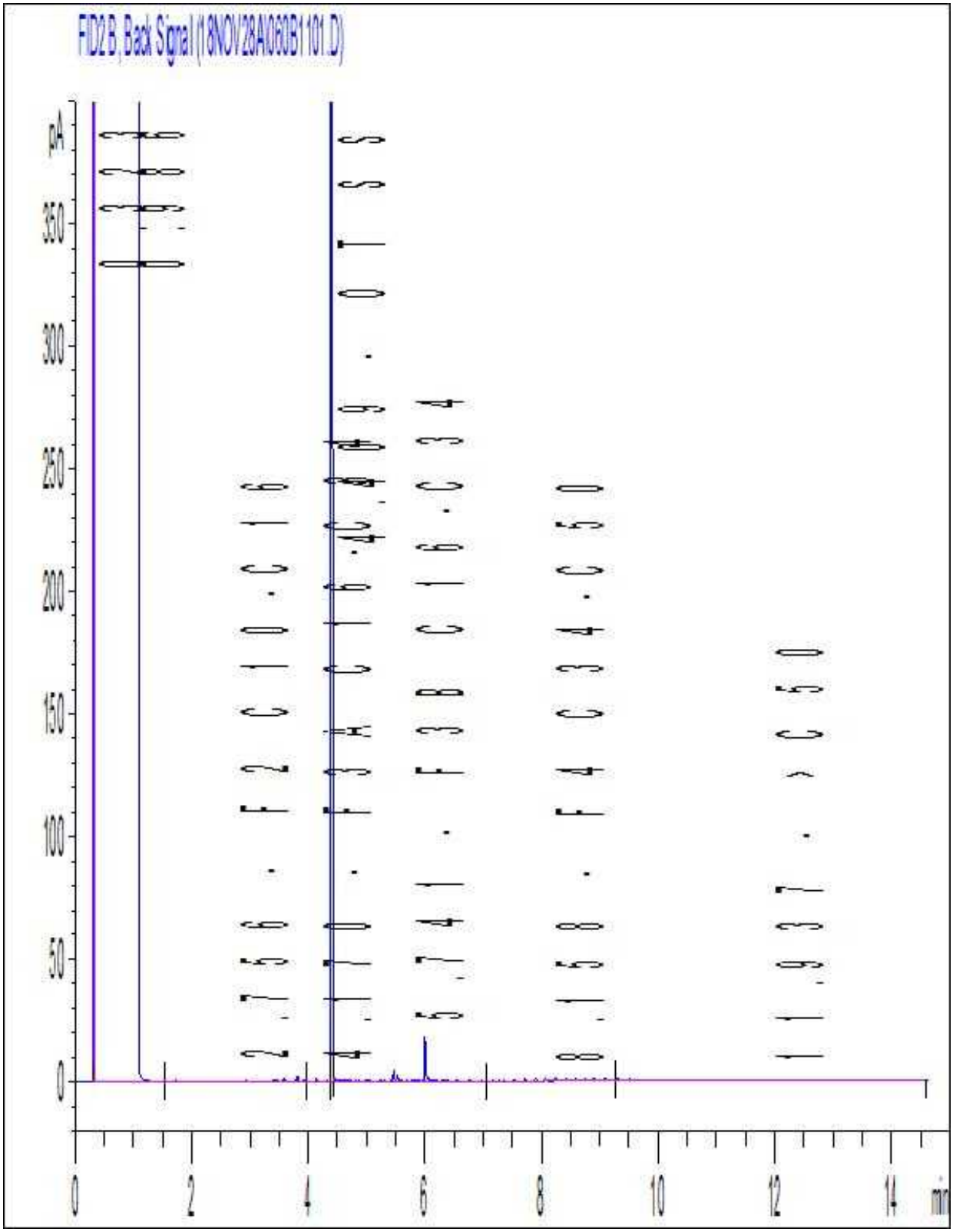


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY737 Lab-Dup

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: QAQC 18-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

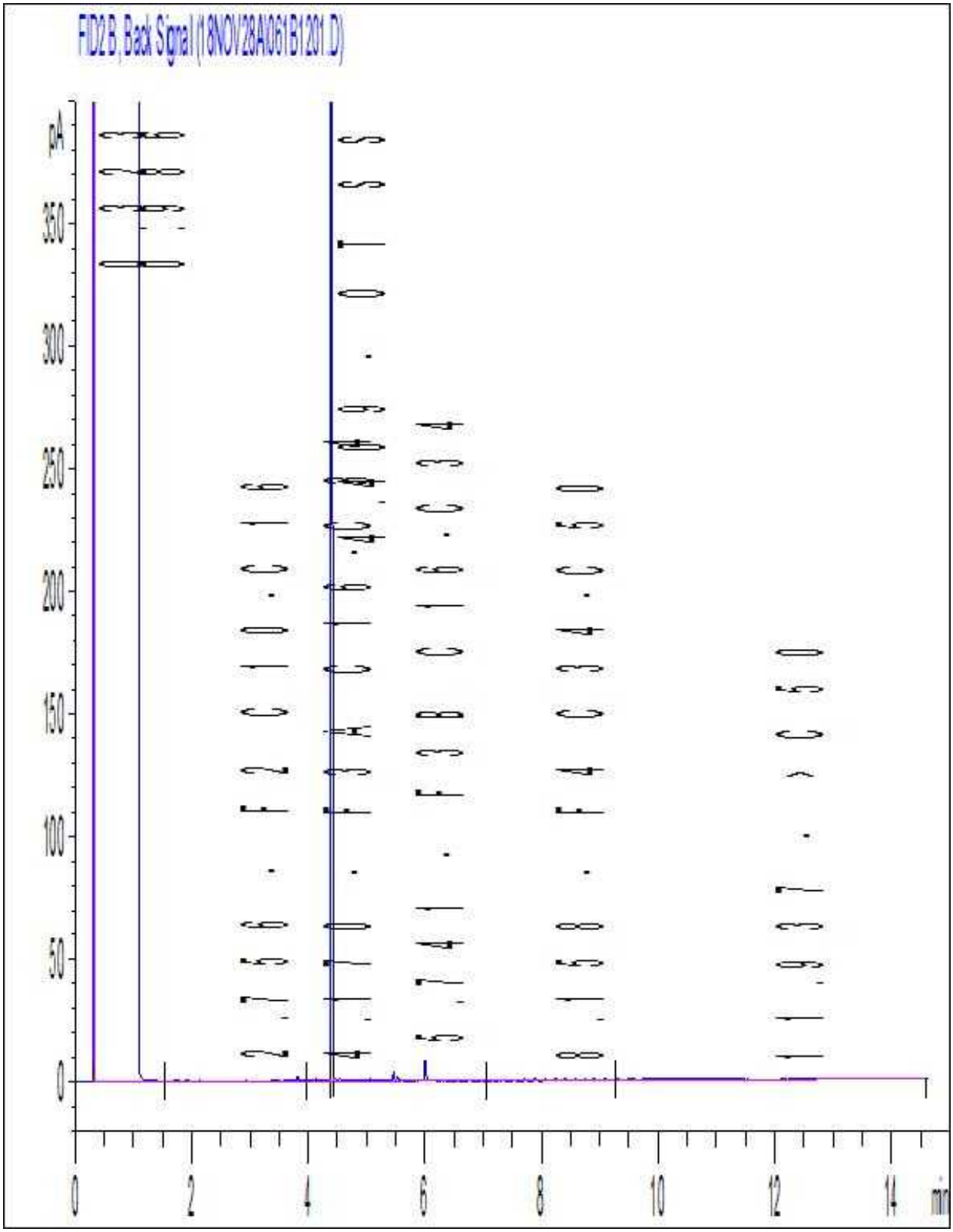


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY738

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: BH18-5

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

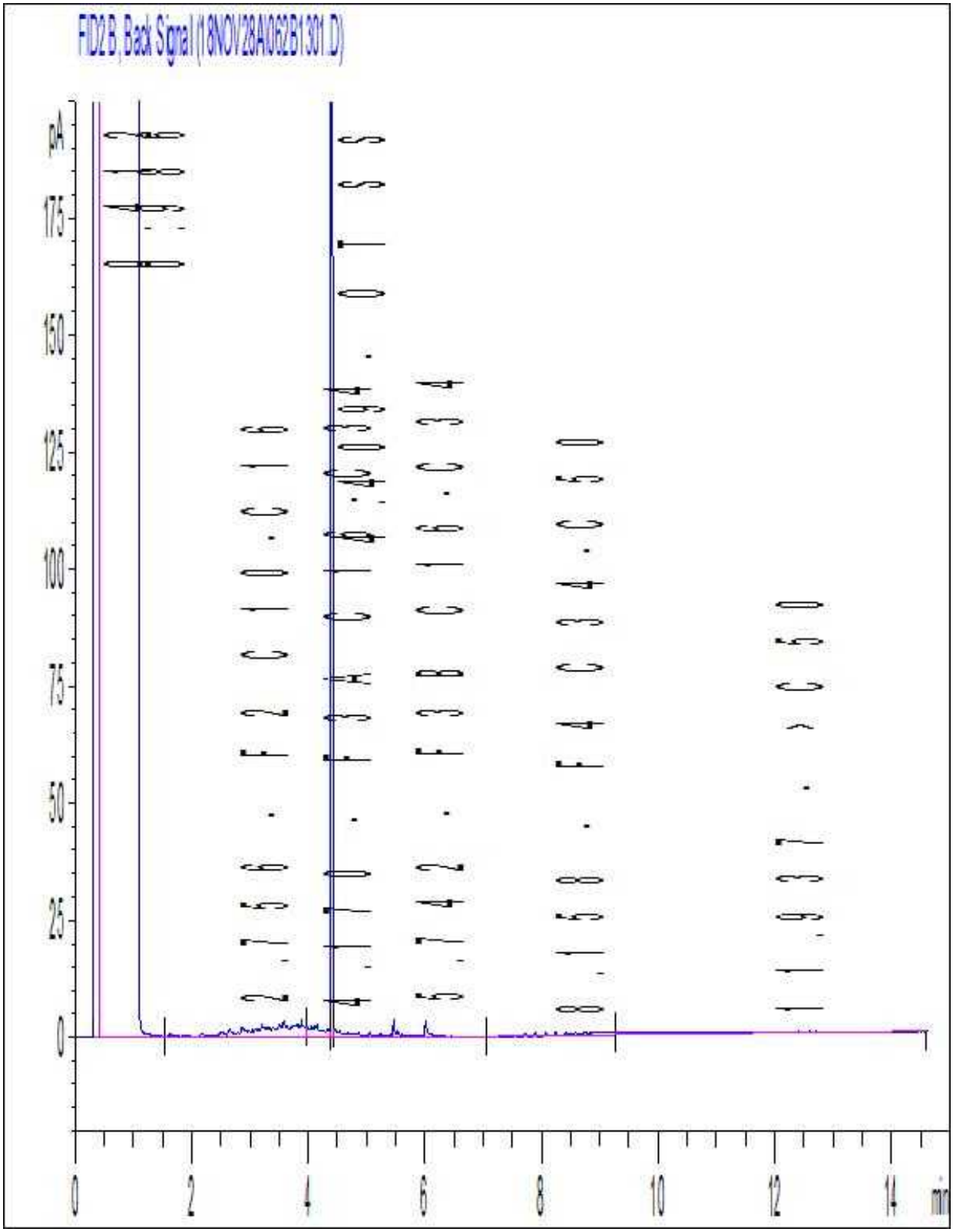


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8V1705
Report Date: 2018/11/29
Maxxam Sample: IIY740

WSP Canada Inc
Client Project #: 181-11306-00
Client ID: BH18-4

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



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

Maxxam Job #: B8V1705
Report Date: 2018/11/29

WSP Canada Inc
Client Project #: 181-11306-00
Sampler Initials: KM

Exceedence Summary Table – Reg153/04 T3-GW-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
BH18-4	IIY740-06	F2 (C10-C16 Hydrocarbons)	150	170	110	ug/L

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00
Site Location: 958 EAST AVE.
Your C.O.C. #: 115203

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/04
Report #: R5511617
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8V6132
Received: 2018/11/27, 11:05

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Chloride by Automated Colourimetry	1	N/A	2018/11/29	CAM SOP-00463	EPA 325.2 m
Chromium (VI) in Water	1	N/A	2018/12/03	CAM SOP-00436	EPA 7199 m
Free (WAD) Cyanide	1	N/A	2018/11/29	CAM SOP-00457	OMOE E3015 m
Petroleum Hydrocarbons F2-F4 in Water (1)	1	2018/11/30	2018/12/03	CAM SOP-00316	CCME PHC-CWS m
Mercury	1	2018/11/30	2018/11/30	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS	1	N/A	2018/11/29	CAM SOP-00447	EPA 6020B m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.

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

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

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

Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00
Site Location: 958 EAST AVE.
Your C.O.C. #: 115203

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/04
Report #: R5511617
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8V6132
Received: 2018/11/27, 11:05

Encryption Key

Ashton Gibson
Project Manager
04 Dec 2018 18:39:36

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Ashton Gibson, Project Manager
Email: AGibson@maxxam.ca
Phone# (905) 817-5700

==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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Maxxam Job #: B8V6132
Report Date: 2018/12/04

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958 EAST AVE.

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		IJY106		
Sampling Date		2018/11/27 09:30		
COC Number		115203		
	UNITS	**BH18-7**	**RDL**	**QC Batch**
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/L	<100	100	5865342
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	5865342
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	5865342
Reached Baseline at C50	ug/L	Yes		5865342
Surrogate Recovery (%)				
o-Terphenyl	%	107		5865342

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B8V6132
Report Date: 2018/12/04

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958 EAST AVE.

O.REG 153 METALS & INORGANICS PKG (WTR)

Maxxam ID		IJY106		
Sampling Date		2018/11/27 09:30		
COC Number		115203		
	UNITS	BH18-7	RDL	QC Batch
Inorganics				
WAD Cyanide (Free)	ug/L	<1	1	5862447
Dissolved Chloride (Cl-)	mg/L	240	3.0	5861773
Metals				
Chromium (VI)	ug/L	<0.50	0.50	5863280
Mercury (Hg)	ug/L	<0.1	0.1	5864605
Dissolved Antimony (Sb)	ug/L	3.5	0.50	5863067
Dissolved Arsenic (As)	ug/L	8.6	1.0	5863067
Dissolved Barium (Ba)	ug/L	76	2.0	5863067
Dissolved Beryllium (Be)	ug/L	<0.50	0.50	5863067
Dissolved Boron (B)	ug/L	1200	10	5863067
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	5863067
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	5863067
Dissolved Cobalt (Co)	ug/L	2.0	0.50	5863067
Dissolved Copper (Cu)	ug/L	<1.0	1.0	5863067
Dissolved Lead (Pb)	ug/L	<0.50	0.50	5863067
Dissolved Molybdenum (Mo)	ug/L	29	0.50	5863067
Dissolved Nickel (Ni)	ug/L	3.3	1.0	5863067
Dissolved Selenium (Se)	ug/L	2.0	2.0	5863067
Dissolved Silver (Ag)	ug/L	<0.10	0.10	5863067
Dissolved Sodium (Na)	ug/L	190000	100	5863067
Dissolved Thallium (Tl)	ug/L	0.12	0.050	5863067
Dissolved Uranium (U)	ug/L	9.5	0.10	5863067
Dissolved Vanadium (V)	ug/L	1.5	0.50	5863067
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	5863067

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B8V6132
Report Date: 2018/12/04

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958 EAST AVE.

TEST SUMMARY

Maxxam ID: IJY106
Sample ID: BH18-7
Matrix: Water

Collected: 2018/11/27
Shipped:
Received: 2018/11/27

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Chloride by Automated Colourimetry	KONE	5861773	N/A	2018/11/29	Alina Dobreanu
Chromium (VI) in Water	IC	5863280	N/A	2018/12/03	Lang Le
Free (WAD) Cyanide	SKAL/CN	5862447	N/A	2018/11/29	Louise Harding
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5865342	2018/11/30	2018/12/03	(Kent) Maolin Li
Mercury	CV/AA	5864605	2018/11/30	2018/11/30	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	5863067	N/A	2018/11/29	Matthew Ritenburg

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GENERAL COMMENTS

Results relate only to the items tested.

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Maxxam
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Maxxam Job #: B8V6132
Report Date: 2018/12/04

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958 EAST AVE.

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5865342	o-Terphenyl	2018/12/03	124	60 - 130	101	60 - 130	113	%		
5861773	Dissolved Chloride (Cl-)	2018/11/29	NC	80 - 120	101	80 - 120	<1.0	mg/L	0.17	20
5862447	WAD Cyanide (Free)	2018/11/29	95	80 - 120	97	80 - 120	<1	ug/L	NC	20
5863067	Dissolved Antimony (Sb)	2018/11/29	110	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
5863067	Dissolved Arsenic (As)	2018/11/29	106	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
5863067	Dissolved Barium (Ba)	2018/11/29	102	80 - 120	99	80 - 120	<2.0	ug/L	2.7	20
5863067	Dissolved Beryllium (Be)	2018/11/29	104	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
5863067	Dissolved Boron (B)	2018/11/29	99	80 - 120	93	80 - 120	<10	ug/L	0.11	20
5863067	Dissolved Cadmium (Cd)	2018/11/29	103	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
5863067	Dissolved Chromium (Cr)	2018/11/29	100	80 - 120	95	80 - 120	<5.0	ug/L	NC	20
5863067	Dissolved Cobalt (Co)	2018/11/29	100	80 - 120	96	80 - 120	<0.50	ug/L	NC	20
5863067	Dissolved Copper (Cu)	2018/11/29	101	80 - 120	95	80 - 120	<1.0	ug/L	4.3	20
5863067	Dissolved Lead (Pb)	2018/11/29	100	80 - 120	94	80 - 120	<0.50	ug/L	NC	20
5863067	Dissolved Molybdenum (Mo)	2018/11/29	107	80 - 120	99	80 - 120	<0.50	ug/L	18	20
5863067	Dissolved Nickel (Ni)	2018/11/29	99	80 - 120	95	80 - 120	<1.0	ug/L	15	20
5863067	Dissolved Selenium (Se)	2018/11/29	107	80 - 120	103	80 - 120	<2.0	ug/L	NC	20
5863067	Dissolved Silver (Ag)	2018/11/29	102	80 - 120	95	80 - 120	<0.10	ug/L	NC	20
5863067	Dissolved Sodium (Na)	2018/11/29	98	80 - 120	92	80 - 120	<100	ug/L	2.3	20
5863067	Dissolved Thallium (Tl)	2018/11/29	100	80 - 120	94	80 - 120	<0.050	ug/L	NC	20
5863067	Dissolved Uranium (U)	2018/11/29	99	80 - 120	93	80 - 120	<0.10	ug/L	0.95	20
5863067	Dissolved Vanadium (V)	2018/11/29	103	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
5863067	Dissolved Zinc (Zn)	2018/11/29	102	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
5863280	Chromium (VI)	2018/12/03	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
5864605	Mercury (Hg)	2018/11/30	93	75 - 125	95	80 - 120	<0.1	ug/L	NC	20
5865342	F2 (C10-C16 Hydrocarbons)	2018/12/03	124	50 - 130	105	60 - 130	<100	ug/L	4.0	30
5865342	F3 (C16-C34 Hydrocarbons)	2018/12/03	NC	50 - 130	109	60 - 130	<200	ug/L	25	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5865342	F4 (C34-C50 Hydrocarbons)	2018/12/03	121	50 - 130	102	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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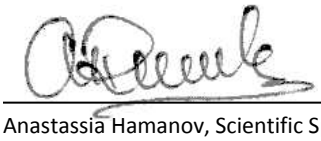
Maxxam Job #: B8V6132
Report Date: 2018/12/04

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958 EAST AVE.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/3

CHAIN OF CUSTODY RECORD 115203 Page ____ of ____

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: WSP Canada Inc	Company Name:	Quotation #:	[X] Regular TAT (5-7 days) Most analyses
Contact Name: Mike Wilson	Contact Name:	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 51 Constellation Court	Address:	Project #: 191-11306-00	Rush TAT (Surcharges will be applied)
		Site Location: 458 East Ave	[ ] 1 Day [ ] 2 Days [ ] 3-4 Days
Phone: 647-730-7052	Phone: Fax:	Site #:	
Email: michael.wilson@wsp.com	Email:	Sampled By: Stephen Stanoff	Date Required:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Rush Confirmation #:

Regulation 153
[ ] Table 1 [ ] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [ ] Coarse
[ ] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) (Y) N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region
[ ] Other (Specify)
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

LABORATORY USE ONLY
CUSTODY SEAL Y / N (N)
COOLER TEMPERATURES: Present | Intact
4 | 13 | 12
COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) (Metals / (DIS) / (CR))	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Pkg, Cr VI, ICPMS Metals, HWS - B)								HOLD- DO NOT ANALYZE	COMMENTS
1	BH18-7	2018/11/27	9:30	GW	7	X		X													
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Stephen Stanoff	2018/11/27	11:05	David Warner	2018/11/27	11:05

27-Nov-18 11:05
Ashton Gibson
B8V6132
JCC ENV-709

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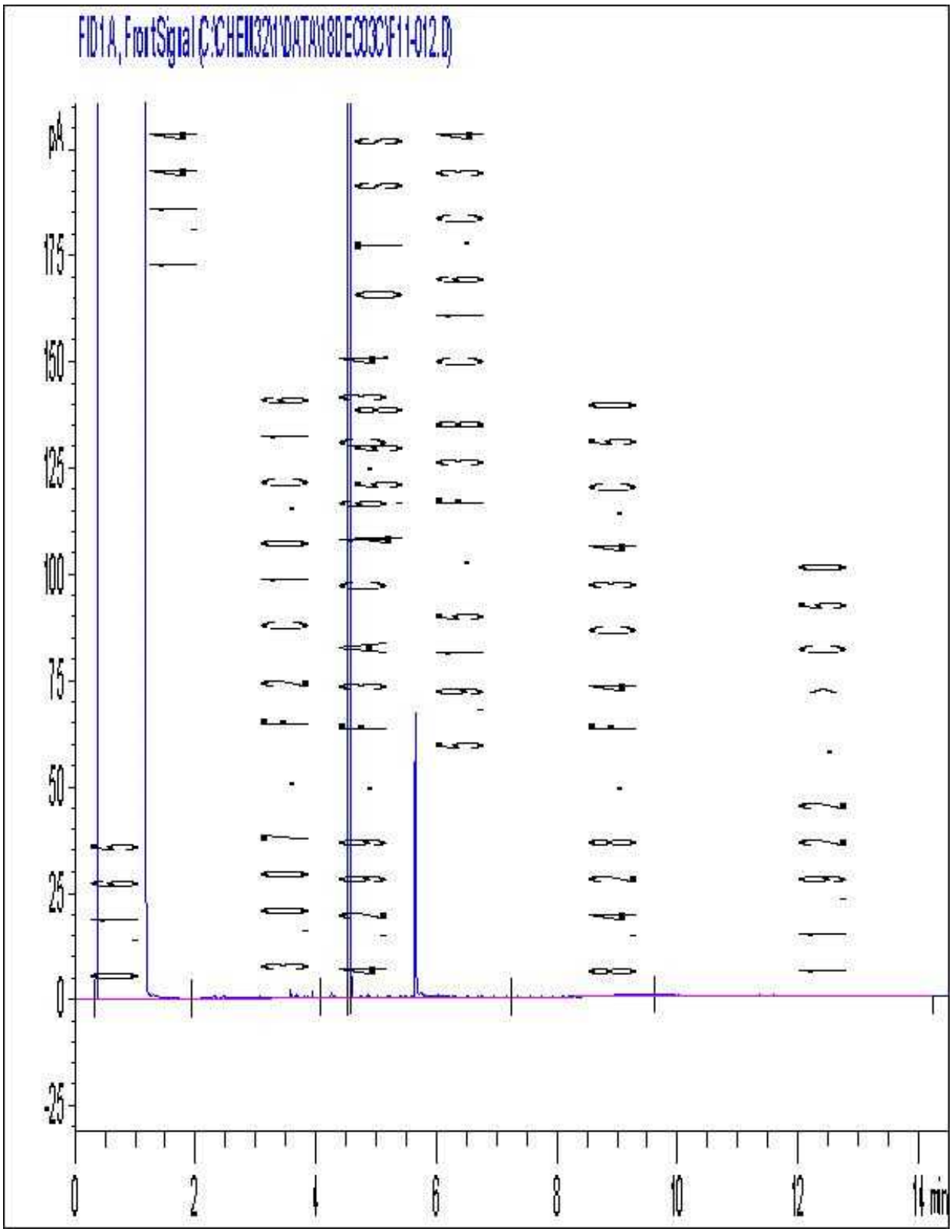
COC-1004 (03/17)

White: Maxxam ~ Yellow: Client

Maxxam Job #: B8V6132
Report Date: 2018/12/04
Maxxam Sample: IJY106

WSP Canada Inc
Client Project #: 181-11306-00
Project name: 958 EAST AVE.
Client ID: BH18-7

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



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

Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Your C.O.C. #: n/a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/12
Report #: R5522977
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W6343
Received: 2018/12/06, 09:20

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2018/12/10	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2018/12/11	2018/12/12	CAM SOP-00316	CCME PHC-CWS m

Remarks:

Maxxam Analytics' laboratories are accredited to ISO/IEC 17025:2005 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Maxxam are based upon recognized Provincial, Federal or US method compendia such as CCME, MDDELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Maxxam's profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Maxxam 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.

Maxxam Analytics' liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Maxxam 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 Maxxam, unless otherwise agreed in writing. Maxxam 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 Maxxam, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

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

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

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

Encryption Key

Ashton Gibson
Project Manager
12 Dec 2018 17:42:06

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Your C.O.C. #: n/a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/12
Report #: R5522977
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8W6343
Received: 2018/12/06, 09:20
Email: AGibson@maxxam.ca
Phone# (905) 817-5700
==========

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Maxxam Job #: B8W6343
Report Date: 2018/12/12

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

O.REG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID			IMD785		IMD786		
Sampling Date			2018/12/06 08:30		2018/12/06		
COC Number			n/a		n/a		
	UNITS	Criteria	18-4	RDL	TRIP BLANK	RDL	QC Batch
BTEX & F1 Hydrocarbons							
Benzene	ug/L	44	<0.20	0.20	<0.20	0.20	5879626
Toluene	ug/L	18000	<0.20	0.20	<0.20	0.20	5879626
Ethylbenzene	ug/L	2300	<0.20	0.20	<0.20	0.20	5879626
o-Xylene	ug/L	-	<0.20	0.20	<0.20	0.20	5879626
p+m-Xylene	ug/L	-	<0.40	0.40	<0.40	0.40	5879626
Total Xylenes	ug/L	4200	<0.40	0.40	<0.40	0.40	5879626
F1 (C6-C10)	ug/L	750	<25	25	<25	25	5879626
F1 (C6-C10) - BTEX	ug/L	750	<25	25	<25	25	5879626
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/L	150	<110	110	<100	100	5882832
F3 (C16-C34 Hydrocarbons)	ug/L	500	<220	220	<200	200	5882832
F4 (C34-C50 Hydrocarbons)	ug/L	500	<220	220	<200	200	5882832
Reached Baseline at C50	ug/L	-	Yes		Yes		5882832
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	-	103		104		5879626
4-Bromofluorobenzene	%	-	97		98		5879626
D10-Ethylbenzene	%	-	93		95		5879626
D4-1,2-Dichloroethane	%	-	97		99		5879626
o-Terphenyl	%	-	113		113		5882832

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Criteria: Ontario Reg. 153/04 (Amended April 15, 2011)
Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition
Non- Potable Ground Water - All Types of Property Uses - Coarse Textured Soil

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Maxxam Job #: B8W6343
Report Date: 2018/12/12

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

TEST SUMMARY

Maxxam ID: IMD785
Sample ID: 18-4
Matrix: Water

Collected: 2018/12/06
Shipped:
Received: 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5879626	N/A	2018/12/10	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5882832	2018/12/11	2018/12/12	Jeevaraj Jeevaratrnam

Maxxam ID: IMD786
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2018/12/06
Shipped:
Received: 2018/12/06

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5879626	N/A	2018/12/10	Anca Ganea
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5882832	2018/12/11	2018/12/12	Jeevaraj Jeevaratrnam

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Maxxam Job #: B8W6343
Report Date: 2018/12/12

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

GENERAL COMMENTS

Custody seal was present and intact

Sample IMD785 [18-4] : F2-F4 Analysis: Due to limited amount of sample available for analyses, a smaller than usual portion of the sample was used. Reporting limits were adjusted accordingly.

Results relate only to the items tested.

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Maxxam
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Maxxam Job #: B8W6343
Report Date: 2018/12/12

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5879626	1,4-Difluorobenzene	2018/12/10	104	70 - 130	103	70 - 130	100	%		
5879626	4-Bromofluorobenzene	2018/12/10	100	70 - 130	98	70 - 130	97	%		
5879626	D10-Ethylbenzene	2018/12/10	96	70 - 130	91	70 - 130	103	%		
5879626	D4-1,2-Dichloroethane	2018/12/10	99	70 - 130	100	70 - 130	102	%		
5882832	o-Terphenyl	2018/12/12	117	60 - 130	116	60 - 130	114	%		
5879626	Benzene	2018/12/10	91	70 - 130	87	70 - 130	<0.20	ug/L	NC	30
5879626	Ethylbenzene	2018/12/10	97	70 - 130	91	70 - 130	<0.20	ug/L	NC	30
5879626	F1 (C6-C10) - BTEX	2018/12/10					<25	ug/L	NC	30
5879626	F1 (C6-C10)	2018/12/10	103	70 - 130	114	70 - 130	<25	ug/L	NC	30
5879626	o-Xylene	2018/12/10	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
5879626	p+m-Xylene	2018/12/10	99	70 - 130	94	70 - 130	<0.40	ug/L	NC	30
5879626	Toluene	2018/12/10	97	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
5879626	Total Xylenes	2018/12/10					<0.40	ug/L	NC	30
5882832	F2 (C10-C16 Hydrocarbons)	2018/12/12	NC	50 - 130	107	60 - 130	<100	ug/L	NC	30
5882832	F3 (C16-C34 Hydrocarbons)	2018/12/12	111	50 - 130	112	60 - 130	<200	ug/L	1.7	30
5882832	F4 (C34-C50 Hydrocarbons)	2018/12/12	112	50 - 130	105	60 - 130	<200	ug/L	NC	30

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

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

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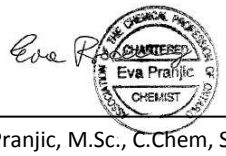
Maxxam Job #: B8W6343
Report Date: 2018/12/12

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Ewa Pranjic, M.Sc., C.Chem, Scientific Specialist

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Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/3

CHAIN OF CUSTODY RECORD 115686 Page 1 of 1

Invoice Information	Report Information (if differs from invoice)	Project Information (where applicable)	Turnaround Time (TAT) Required
Company Name: SAUCE	Company Name: WSP	Quotation #:	☒ Regular TAT (5-7 days) Most analyses
Contact Name:	Contact Name: Mike Wilson	P.O. #/ AFE#:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address:	Address: 51 Constellation Court Toronto, ON	Project #: 181-11306-00	Rush TAT (Surcharges will be applied)
		Site Location: 958-960 East Ave.	☐ 1 Day ☐ 2 Days ☐ 3-4 Days
Phone: Fax:	Phone: 416 798 0065 Fax: 416-798-0578	Site #:	
Email: payables.ontario@wsp.com	Email: michael.wilson@wsp.com	Sampled By: M.W	Date Required:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Rush Confirmation #:

Regulation 153
☐ Table 1 ☒ Res/Park ☐ Med/ Fine
☐ Table 2 ☐ Ind/Comm ☒ Coarse
☒ Table 3 ☐ Agri/ Other
☐ Table ____
FOR RSC (PLEASE CIRCLE) (Y) N

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ MISA ☐ Storm Sewer Bylaw
☐ PWQO Region ____
☐ Other (Specify) ____
☐ REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: (Y) / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

LABORATORY USE ONLY

CUSTODY SEAL Y / N: Present Y, Intact Y
COOLER TEMPERATURES: 7/7/1

COOLING MEDIA PRESENT: (Y) / N

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	HOLD- DO NOT ANALYZE	COMMENTS
1	18-4	2018/12/06	08:30	GW	5		X	X						
2	Trip Blank	"	—	AQ	5		X	X						
3														
4														
5														
6														
7														
8														
9														
10														

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:M
Michael Wilson	2018/12/06	09:20	JUSTEAN COLENE CUK ITAO	2018/12/06	09:20

06-Dec-18 09:20
Ashton Gibson
B8W6343
NSQ ENV-844

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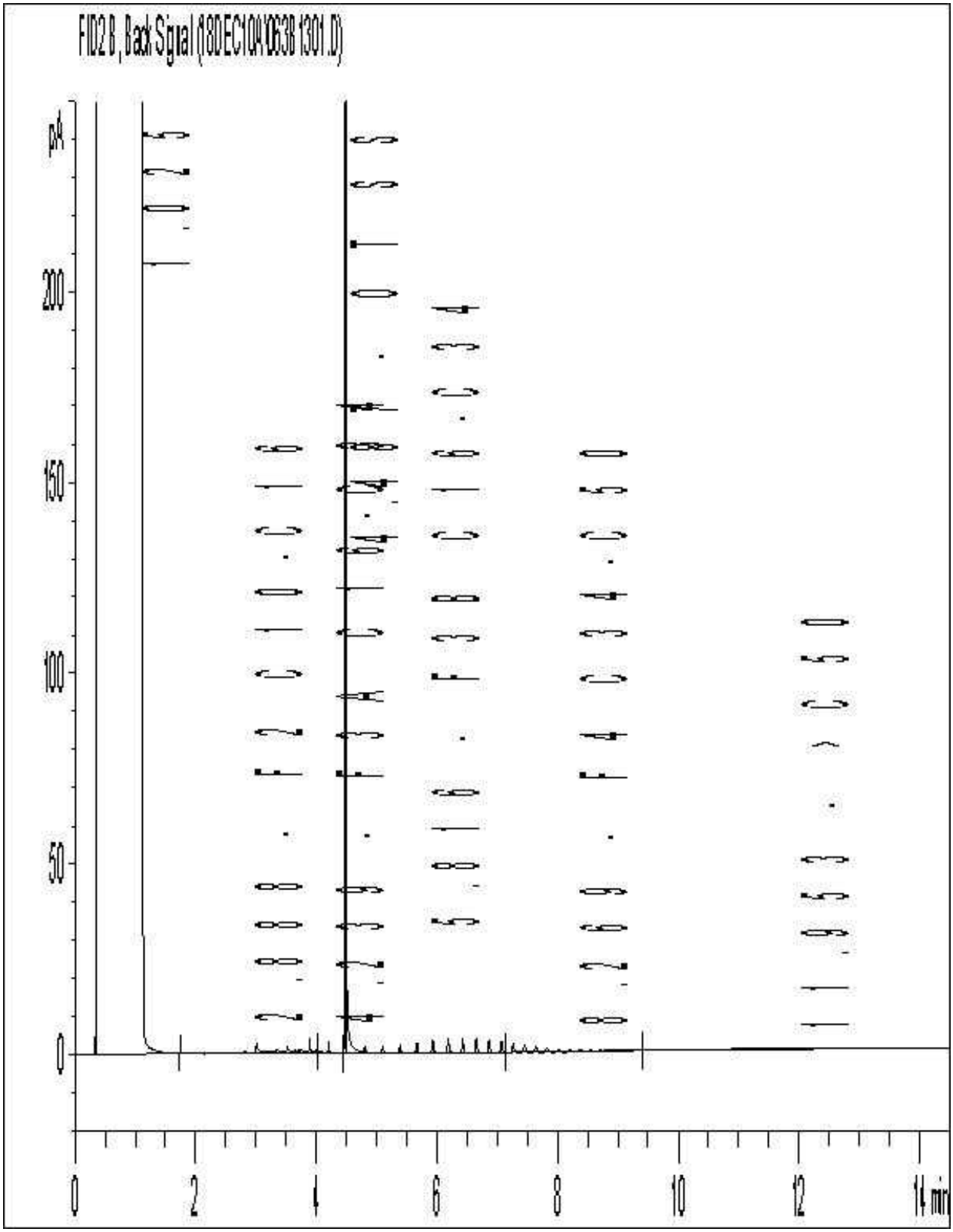
COC-1004 (03/17)

White: Maxxam ~ Yellow: Client

Maxxam Job #: B8W6343
Report Date: 2018/12/12
Maxxam Sample: IMD785

WSP Canada Inc
Client Project #: 181-11306-00
Project name: 958-960 EAST AVE
Client ID: 18-4

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

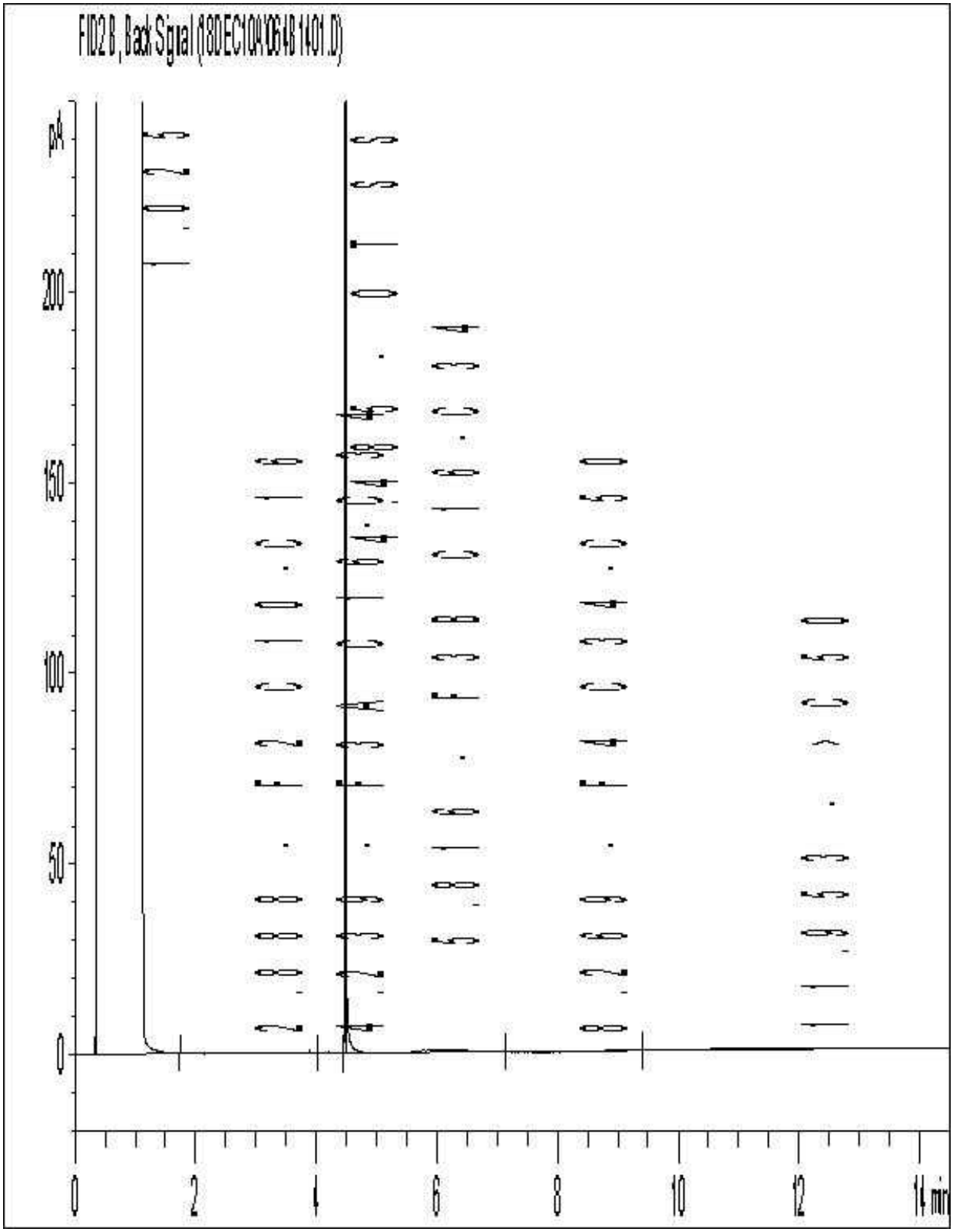


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8W6343
Report Date: 2018/12/12
Maxxam Sample: IMD786

WSP Canada Inc
Client Project #: 181-11306-00
Project name: 958-960 EAST AVE
Client ID: TRIP BLANK

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



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Maxxam Job #: B8W6343
Report Date: 2018/12/12

WSP Canada Inc
Client Project #: 181-11306-00
Site Location: 958-960 EAST AVE
Sampler Initials: MW

Exceedence Summary Table – Reg153/04 T3-GW-C

Result Exceedences

Sample ID	Maxxam ID	Parameter	Criteria	Result	DL	Units
No Exceedences						

The exceedence summary table is for information purposes only and should not be considered a comprehensive listing or statement of conformance to applicable regulatory guidelines.

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Maxxam
A Bureau Veritas Group Company

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: n/a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/19
Report #: R5532329
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X3170
Received: 2018/12/12, 16:06

Sample Matrix: Water
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2018/12/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1)	2	2018/12/18	2018/12/19	CAM SOP-00316	CCME PHC-CWS m

Remarks:

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

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

Encryption Key

Kyle Reinhart
Project Manager - Environmental
Customer Service
19 Dec 2018 16:30:29

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.maxxam.ca

Your Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.
Your C.O.C. #: n/a

Attention: Michael Wilson

WSP Canada Inc
51 Constellation Court
Toronto, ON
CANADA M9W 1K4

Report Date: 2018/12/19
Report #: R5532329
Version: 1 - Final

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B8X3170
Received: 2018/12/12, 16:06
Email: AGibson@maxxam.ca
Phone# (905) 817-5700
==========

Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Maxxam Job #: B8X3170
Report Date: 2018/12/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

O.REG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		INS394	INS395		
Sampling Date		2018/12/12 14:00	2018/12/12 14:00		
COC Number		n/a	n/a		
	UNITS	18-4	TRIP BLANK	RDL	QC Batch
BTEX & F1 Hydrocarbons					
Benzene	ug/L	<0.20	<0.20	0.20	5895061
Toluene	ug/L	<0.20	<0.20	0.20	5895061
Ethylbenzene	ug/L	<0.20	<0.20	0.20	5895061
o-Xylene	ug/L	<0.20	<0.20	0.20	5895061
p+m-Xylene	ug/L	<0.40	<0.40	0.40	5895061
Total Xylenes	ug/L	<0.40	<0.40	0.40	5895061
F1 (C6-C10)	ug/L	<25	<25	25	5895061
F1 (C6-C10) - BTEX	ug/L	<25	<25	25	5895061
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	100	5894592
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	200	5894592
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	200	5894592
Reached Baseline at C50	ug/L	Yes	Yes		5894592
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	103	102		5895061
4-Bromofluorobenzene	%	98	97		5895061
D10-Ethylbenzene	%	96	95		5895061
D4-1,2-Dichloroethane	%	98	97		5895061
o-Terphenyl	%	117	117		5894592

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B8X3170
Report Date: 2018/12/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

TEST SUMMARY

Maxxam ID: INS394
Sample ID: 18-4
Matrix: Water

Collected: 2018/12/12
Shipped:
Received: 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5895061	N/A	2018/12/18	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5894592	2018/12/18	2018/12/19	Zhiyue (Frank) Zhu

Maxxam ID: INS395
Sample ID: TRIP BLANK
Matrix: Water

Collected: 2018/12/12
Shipped:
Received: 2018/12/12

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	5895061	N/A	2018/12/18	Joe Paino
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	5894592	2018/12/18	2018/12/19	Zhiyue (Frank) Zhu

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Maxxam Job #: B8X3170
Report Date: 2018/12/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

GENERAL COMMENTS

all 40mL vials for F1BTEX analysis contained visible sediment for sample 18-4.

Results relate only to the items tested.

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Maxxam Job #: B8X3170
Report Date: 2018/12/19

QUALITY ASSURANCE REPORT

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
5894592	o-Terphenyl	2018/12/18	121	60 - 130	111	60 - 130	111	%		
5895061	1,4-Difluorobenzene	2018/12/18	102	70 - 130	102	70 - 130	102	%		
5895061	4-Bromofluorobenzene	2018/12/18	100	70 - 130	100	70 - 130	96	%		
5895061	D10-Ethylbenzene	2018/12/18	99	70 - 130	98	70 - 130	96	%		
5895061	D4-1,2-Dichloroethane	2018/12/18	97	70 - 130	98	70 - 130	98	%		
5894592	F2 (C10-C16 Hydrocarbons)	2018/12/19	111	50 - 130	89	60 - 130	<100	ug/L	NC	30
5894592	F3 (C16-C34 Hydrocarbons)	2018/12/19	103	50 - 130	91	60 - 130	<200	ug/L	NC	30
5894592	F4 (C34-C50 Hydrocarbons)	2018/12/19	106	50 - 130	92	60 - 130	<200	ug/L	NC	30
5895061	Benzene	2018/12/18	91	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
5895061	Ethylbenzene	2018/12/18	93	70 - 130	90	70 - 130	<0.20	ug/L	26	30
5895061	F1 (C6-C10) - BTEX	2018/12/18					<25	ug/L	NC	30
5895061	F1 (C6-C10)	2018/12/18	98	70 - 130	114	70 - 130	<25	ug/L	NC	30
5895061	o-Xylene	2018/12/18	92	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
5895061	p+m-Xylene	2018/12/18	91	70 - 130	89	70 - 130	<0.40	ug/L	NC	30
5895061	Toluene	2018/12/18	96	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
5895061	Total Xylenes	2018/12/18					<0.40	ug/L	NC	30

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

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

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

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

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

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

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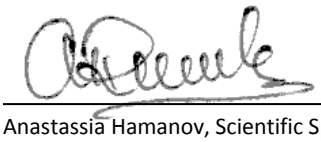
Maxxam Job #: B8X3170
Report Date: 2018/12/19

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Site Location: 958-960 EAST AVE.

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Anastassia Hamanov, Scientific Specialist

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12-Dec-18 16:06

Ashton Gibson

B8X3170

VMK ENV-989

Presence of Visible Particulate/Sediment

Maxxam Analytics
CAM FCD-01013/5

When there is >1cm of visible particulate/sediment, the amount will be recorded in the field below

Bottle Types

		Inorganics						Organics											Hydrocarbons							Volatiles				Other
	Sample ID	All	CrVI	CN	General	Hg	Metals (Diss.)	Organic 1 of 2	Organic 2 of 2	PCB 1 of 2	PCB 2 of 2	Pest/ Herb 1 of 2	Pest/ Herb 2 of 2	SVOC/ ABN 1 of 2	SVOC/ ABN 2 of 2	PAH 1 of 2	PAH 2 of 2	Dioxin /Furan	F1 Vial 1	F1 Vial 2	F1 Vial 3	F1 Vial 4	F2-F4 1 of 2	F2-F4 2 of 2	F4G	VOC Vial 1	VOC Vial 2	VOC Vial 3	VOC Vial 4	
1	18-4																									TS	TS	TS		
2																														
3																														
4																														
5																														
6																														
7																														
8																														
9																														
10																														

Comments:

Legend:	
P	Suspended Particulate
TS	Trace Settled Sediment (just covers bottom of container or less)
S	Sediment greater than (>) Trace, but less than (<) 1 cm

Recorded By: (signature/print) VLADA MARKEVICH

Maxxam
A Bureau Veritas Group Company

6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266
CAM FCD-01191/2

CHAIN OF CUSTODY RECORD

Page 1 of 1

Invoice Information		Report Information (if differs from invoice)		Project Information (where applicable)	
Company Name:	WSP	Company Name:	WSP	Quotation #:	
Contact Name:		Contact Name:	Michael Wilson	P.O. #/ AFE#:	
Address:	51 Constellation Court Toronto, ON	Address:	51 Constellation Court Toronto, ON	Project #:	181-11306-00 PM 220
Phone:	416-798-0065 Fax: 416-798-0518	Phone:	416-798-0065 Fax: 416-798-0518	Site Location:	958-960 East Ave
Email:	payables.ontario@wsp.com	Email:	michael.wilson@wsp.com	Site #:	
				Sampled By:	MW

Turnaround Time (TAT) Required

[X] Regular TAT (5-7 days) Most analyses

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS

Rush TAT (Surcharges will be applied)
[ ] 1 Day [ ] 2 Days [ ] 3-4 Days

Date Required:

Rush Confirmation #:

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY

Regulation 153
[ ] Table 1 [ ] Res/Park [ ] Med/ Fine
[ ] Table 2 [ ] Ind/Comm [ ] Coarse
[ ] Table 3 [ ] Agri/ Other
[ ] Table ____
FOR RSC (PLEASE CIRCLE) Y / N

Other Regulations
[ ] CCME [ ] Sanitary Sewer Bylaw
[ ] MISA [ ] Storm Sewer Bylaw
[ ] PWQO Region
[ ] Other (Specify)
[ ] REG 558 (MIN. 3 DAY TAT REQUIRED)

Include Criteria on Certificate of Analysis: Y / N

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM

Analysis Requested

	SAMPLE IDENTIFICATION	DATE SAMPLED (YYYY/MM/DD)	TIME SAMPLED (HH:MM)	MATRIX	# OF CONTAINERS SUBMITTED	FIELD FILTERED (CIRCLE) Metals / Hg / CrVI	BTEX/ PHC F1	PHCs F2 - F4	VOCs	REFER TO BACK OF COC: REG 153 METALS & INORGANICS	REG 153 ICPMS METALS	REG 153 METALS (Hg, Cr VI, ICPMS Metals, HWS - B)	HOLD- DO NOT ANALYZE
1	18-4	2012/12/12	14:00	GW	5	/	X	X					
2	Trip Blank	*	—	AQ	5		X	X					
3													
4													
5													
6													
7													
8													
9													
10													

LABORATORY USE ONLY

CUSTODY SEAL Y / N		COOLER TEMPERATURES
Present	Intact	
Y	Y	7|6|4

COOLING MEDIA PRESENT: (Y) / N

COMMENTS

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME: (HH:MM)
Michael Wilson	2018/12/13	09:00	[signature]	2018/12/12	16:06

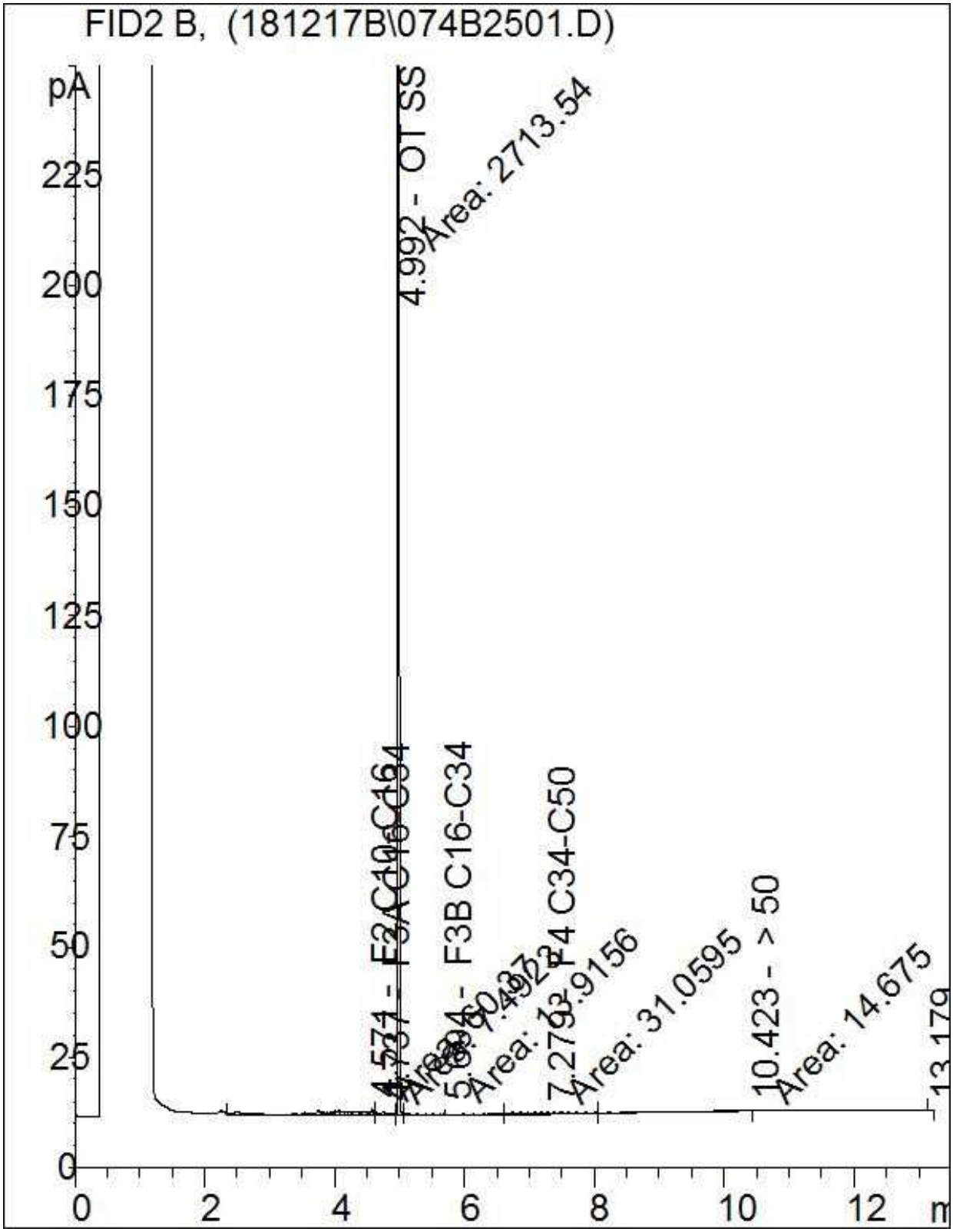
12-Dec-18 16:06
Ashton Gibson
B8X3170
VMK ENV-989

maxxam driver

Maxxam Job #: B8X3170
Report Date: 2018/12/19
Maxxam Sample: INS394

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE.
Client ID: 18-4

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

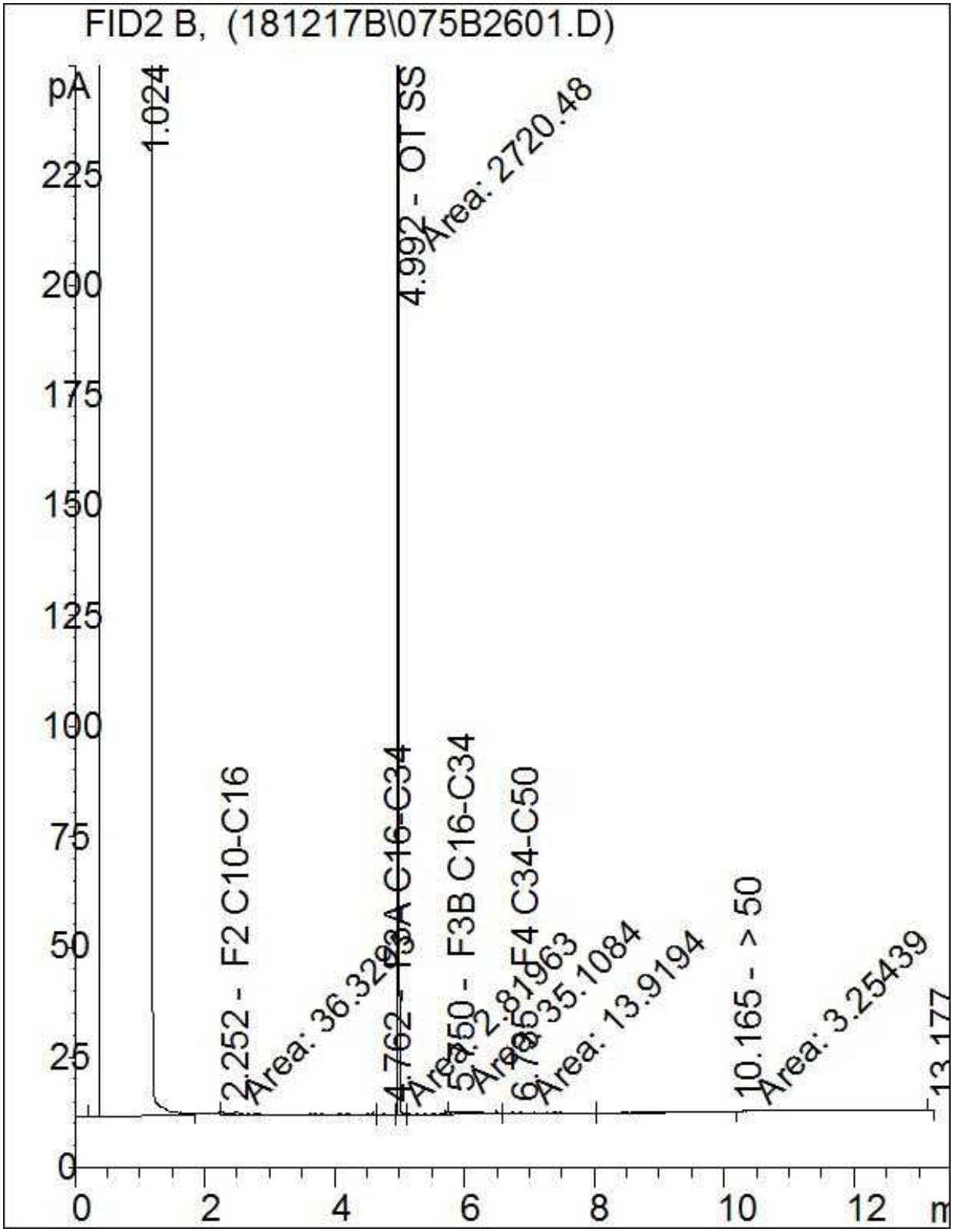


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B8X3170
Report Date: 2018/12/19
Maxxam Sample: INS395

WSP Canada Inc
Client Project #: 181-11306-00 PH 220
Project name: 958-960 EAST AVE.
Client ID: TRIP BLANK

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



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