

## PHASE TWO ENVIRONMENTAL SITE ASSESSMENT

209621 HIGHWAY 26 AND 208  
LAKESHORE ROAD, BLUE MOUNTAINS,  
ONTARIO

project n° 151-62850-00

Prepared for:

**Parkbridge Lifestyle Communities Inc.**

April 15, 2016

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April 15, 2016

Mr. Sandy Higgins  
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L9Z 2P1

**Subject: Phase Two Environmental Site Assessment Report  
209621 Highway 26 and 208 Lakeshore Road,  
Blue Mountains, ON**

Dear Sir,

WSP Canada Inc. (formerly SPL Consultants Limited) is pleased to present its Phase Two Environmental Site Assessment report for 209621 Highway 26 and 208 Lakeshore Road, Blue Mountains, ON. The report documents relevant background information and methodologies, and provides our findings and conclusions following our investigation which was conducted in November 2015 and March 2016 (addition of 208 Lakeshore Road property).

Please do not hesitate to contact the undersigned should you have any questions, or require any further assistance.

Yours truly,

**WSP Canada Inc.**

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Tijana Medencevice, B.A.  
Project Manager, Environment

TM/DL

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# 1 EXECUTIVE SUMMARY

WSP Canada Inc. (WSP) (formerly SPL Consultants Limited - SPL) was retained by Mr. Sandy Higgins of Parkbridge Lifestyle Communities Inc. (Parkbridge) to conduct a Phase Two Environmental Site Assessment (ESA) at the above noted property (hereafter referred to as the Phase Two Property). It is our understanding that this Phase Two ESA was undertaken to assess the soils and groundwater conditions at the Phase Two Property for due diligence purposes prior to a potential acquisition of the property.

The area under assessment, the Phase Two Property, is an irregular shaped parcel of land located on the south side of Highway 26, east of Highway 19, in the Town of The Blue Mountains, Ontario. The Phase Two Property has a municipal address of 209621 Highway 26, Blue Mountains which is currently vacant and 208 Lakeshore Road which is occupied by a residential dwelling.

A Phase One ESA in accordance with O.Reg 153/04 (as amended) was conducted by SPL in September of 2015 and is reported under a separate cover. During the Phase One ESA investigation, areas of potential environmental concern were identified as a result of past storage and use of gasoline and associated products in fixed above ground storage tanks, importation of fill materials of unknown quality and potential use of pesticides from historical agricultural activities on the property.

During the Phase Two ESA, a total of four (4) boreholes were advanced across the Phase Two Property in November of 2015. Boreholes advanced across the Phase Two Property included one (1) borehole (BH2) advanced to approximately 19 metres below ground surface (mbgs), two (2) boreholes (BH4 and BH9) advanced to approximately 5 mbgs, and one (1) borehole advanced to approximately 2 mbgs. For the purpose of collecting and monitoring groundwater, monitoring wells were installed in three (3) boreholes completed as part of this investigation. It should be noted that the variations in monitoring well depth correspond to the changes in elevation across the property. There is a large variation and incline across the property in a north to south direction.

A subsequent test pit program was completed in December of 2015 to further evaluate the elevated hydrocarbon concentrations identified in boreholes BH4 and BH16. A total of eight test pits were advanced at each of these borehole locations.

In March of 2016 an additional two (2) boreholes (BH16-01 and BH16-02) were advanced to a depth of 1.8m and 6m at the adjacent 208 Lakeshore Road property which is anticipated to be included in the future redevelopment. The 6m borehole was advanced 1.9m into overburden and limestone from 1.9m to 6m.

Selected soil samples were collected across the Phase Two Property, during this investigation and submitted for chemical analysis of volatile organic compounds (VOCs), petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAH), organochlorine (OC) pesticides, polychlorinated biphenyl's (PCBs) and metals and inorganic parameters. Groundwater samples collected from the monitoring wells installed as part of this investigation and during the previous SPL investigation were submitted for chemical analysis of VOCs, PHCs, PAHs, OC pesticides and metals and inorganic parameters.

The results of the soil, groundwater and sediment samples submitted for chemical analysis were compared to the Full Depth Background Site Condition Standards for a residential/parkland/institutional/industrial/commercial/community (RPI/ICC) property use with coarse textured soil as contained in Table 1

of the Ministry of the Environment (MOE) publication “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, published on April 15, 2011. These Standards were chosen due to the proximity of provincially significant wetland located on the Phase Two Property.

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

- Topsoil was encountered in all boreholes with an approximate thickness ranging from 120 to 250mm. Fill material was not found in any of the four (4) boreholes (BH2, BH4, BH9 and BH16) that were advanced as part of this Limited Phase Two ESA. Below the topsoil material, native soil consisting of sandy silt till was found in all of the boreholes up to the termination depth with the exception of BH9 where a sandy silt was found underlying the sandy silt till and boreholes BH16-01 and BH16-02 where sand was encountered followed by sand and gravel at 1.5m. A layer of clayey silt till was found in BH4 within the sandy silt till layer. Borehole BH16 was terminated at the assumed bedrock surface. Borehole BH16-02 was advanced into limestone from a depth of 1.9 to 6m.
- Based on topography, groundwater flow is assumed to be in a north direction. Groundwater levels may be influenced by seasonal fluctuations.
- Soil and groundwater samples collected during this investigation were submitted for analysis of metals and inorganics, organochlorine pesticides, polycyclic aromatic hydrocarbons, petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs). The results of all analyses were compared to the 2011 MOE Table 1 RPI/ICC Standards.
- Soil impacts, greater than the MOE Table 1 RPI/ICC Standards, identified on the Phase Two Property during the borehole and test pit investigation in November and December of 2015 include;
  - Four (4) soil samples BH4 SS5 (3.1-3.4m), BH16 SS3 (1.5-2.1m), TP3 SS2 and TP4 SS3 were found to have elevated concentrations of PHCs above the MOE Table 1RPI/ICC Standards.
  - One (1) soil sample BH16 SS3 (1.5-2.1m), was found to have elevated concentrations of xylene mixture and n-hexane above the MOE Table 1RPI/ICC Standards.
  - The remaining soil samples analyzed met the MOE Table 1 RPI/ICC Standards for the parameters analyzed.
- Groundwater samples submitted for analysis met the MOE Table 1 Standards.
- Soil and groundwater samples analysed in March of 2016 for the property located at 208 Lakeshore Road met the MOE Table 1 RPI/ICC Standards for the target parameters analyzed.

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

- Elevated petroleum hydrocarbon and VOC values in the native soils were detected during the intrusive field investigation in the immediate vicinity of the former fuel storage locations at 209621 Highway 26. If a Record of Site Condition (RSC) is required, additional evaluation would be required to support a filing with the MOECC.
- Alternatively a detailed ecological survey could be conducted to evaluate if this actual site provides habitat for the threatened barn swallow in vicinity of the site. If this site is not habitat then the less stringent MOE criteria would apply and the PHC and VOC values would meet the

MOECC criteria beyond a 30 m buffer of the creek banks resulting in no required excavation and/or soil clean-up.

- All monitoring wells will require decommissioning in accordance with Regulation 903 when no longer required.

## 2 INTRODUCTION

### 2.1 SITE DESCRIPTION

The area under assessment, the Phase Two Property, is an irregular shaped 62.36 acre (25.24 hectares) parcel of land located on the south side of Highway 26, east of highway 19, in the Town of The Blue Mountains, Ontario. The Phase Two Property has a municipal address of 209621 Highway 26, Blue Mountains, Ontario, and is currently vacant.

A legal survey was not available at the time of this report preparation.

*Legal description for the Phase One Property is as follows:*

*Legal Description:*

*PART LOT 161, PLAN 529 WITHIN PART 20, CONCESSION 2*

*And*

*PLAN 529, LOT 172, PT LOT 173 RP 16R 6640 PART 2*

### 2.2 PROPERTY OWNERSHIP

Property ownership information for the Phase Two Property is provided in the table below.

**Table 2-1 Property Ownership Information**

#### CURRENT SITE OWNER

Owner	Barbara Ann Oelbaum/ The Corporation of The Town of The Blue Mountains And Marcella Keith
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### 2.3 CURRENT AND PROPOSED FUTURE USES

At the time of this Limited Phase Two ESA, the west side of the Phase Two Property was Vacant, a residential dwelling was located on the east side. It is our understanding that this investigation has been requested for due diligence purposes prior to the potential purchase of the Phase Two Property and redevelopment to residential use.

### 2.4 APPLICABLE SITE CONDITION STANDARD

The results of the soil and groundwater chemical analyses were evaluated using the Standards contained in the Ministry of the Environment (MOE) document "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (Standards). These Standards were issued on April 15, 2011 and O.Reg 153/04 (as amended) was issued in May 26, 2011 by the MOE. These standards

(effective as of July 1, 2011) were used to evaluate the soil and groundwater quality based on the samples collected and tested, and to determine whether soil and groundwater quality comply with MOE Standards. The MOE Standards were also used to determine whether additional investigations are required or warranted.

The site was assessed using the Full Depth Background Site Condition Standards as contained in Table 1 of above referenced Standards. The use of the Table 1 Standards is considered appropriate by SPL based on the following:

- The site is located within 30 m of a water body;
- The site is not located adjacent to a provincial park or adjacent to an area of natural significance or a wetland area, however, it is anticipated to provide habitat to the barn swallow which is a threatened species identified by the Ministry of Natural Resources;
- The site and neighbouring properties do derive their drinking water from groundwater;
- The site is not an area reserved or set apart as a provincial park or conservation reserve under the Provincial Parks and Conservation Reserves Act, 2006;
- The site is not area of natural and scientific interest (life science or earth science) identified by the Ministry of Natural Resources as having provincial significance;
- The site does not have a wetland identified by the Ministry of Natural Resources as having provincial significance;
- The site is not in an area designated by a municipality in its official plan as environmentally significant, however expressed, including designations of areas as environmentally sensitive, as being of environmental concern and as being ecologically significant;
- The site is not an area designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan under the Niagara Escarpment Planning and Development Act;
- The site may be an area identified by the Ministry of Natural Resources as significant habitat of a threatened or endangered species;
- The site is in an area which is habitat of a species that is classified under Section 7 of the Endangered Species Act, 2007 as a threatened or endangered species;
- The site is not a property within an area designated as a natural core area or natural linkage area within the area to which the Oak Ridges Moraine Conservation Plan under the Oak Ridges Moraine Conservation Act, 2001 applies;
- The site is not an area set apart as a wilderness area under the Wilderness Areas Act;

- Bedrock was not encountered within 2 m of the ground surface, however, was encountered at 2.3m below ground surface and may have area's where bedrock is within 2 m of the ground surface;
- The pH of the soils was within the acceptable range of 5 to 9.

In summary, the Phase Two Property is currently vacant and it is expected that the site will be used for residential uses in the future. The background standards for a residential/parkland/institutional/industrial/commercial/community (RPI/ICC) property use, as contained in the 2011 Table 1 (RPI/ICC) Standards were used to evaluate the environmental quality of the soil and groundwater at the Phase Two Property.

## **2.5 PHYSICAL SETTING**

According to the Ontario Base Map published by First Base Solutions Geospatial Experts, the Phase Two Property has an elevation ranging from approximately 180 to 215 meters above sea level (masl) and gradually slopes north to Georgian Bay located approximately 150 m north of the Phase Two Property.

According to bedrock maps provided by the OGS Earth website, published by the Ontario Ministry of Northern Development, Mines and Forestry, bedrock in the area of the Phase Two Property generally consists of shale, limestone, dolostone, and siltstone.

According to surficial geology maps provided by the OGS Earth website, published by the Ontario Ministry of Northern Development, Mines and Forestry, three classes of surficial soils are encountered on the Phase Two Property; Paleozoic bedrock, coarse textured glaciolacustrine deposits (foreshore and basinal deposits) consisting of sand and gravel with minor silt and clay, and ice-contact stratified deposits consisting of sand and gravel with minor silt, clay and till.

According to physiography maps provided by the OGS Earth website, published by the Ontario Ministry of Northern Development, Mines and Forestry, the Phase Two Property is situated within a sand plain.

According to the Greenbelt Plan 2005 provided by Ontario Ministry of Municipal Affairs and Housing the Phase Two Property is not located within the Oak Ridges Moraine Conservation Plan area or the Niagara Escarpment Area.

### **2.5.1 WATER BODIES AND AREAS OF NATURAL SIGNIFICANCE**

Two small creeks draining from the Blue Mountains cross through the Phase One Property and drain into Georgian Bay. Based on the Atlas of Canada- Toporama topographic map, the depression observed in the aerial photography is a small pond. Georgian Bay is situated approximately 150 meters north of the Phase One Property.

According to the County of Grey Official Plan Schedule A Map 2, the Phase One Property is situated within a recreational resort area.

## 2.5.2 TOPOGRAPHY AND SURFACE WATER DRAINAGE

According to the Ontario Base Map published by First Base Solutions Geospatial Experts, the Phase Two Property has an elevation ranging from approximately 180 to 215 meters above sea level (masl) and gradually slopes north to Georgian Bay located approximately 150 m north of the Phase Two Property.

## 2.6 PAST ASSESSMENTS AND INVESTIGATIONS

No previous reports were provided to SPL for review at the time of this investigation. A Phase One ESA was conducted by SPL in September of 2015 . A discussion of the Phase One ESA Conceptual Site Model is presented in **Section 4(iii)**.

# 3 SCOPE OF THE INVESTIGATION

This report section discusses:

- an overview of the site investigation,
- the media investigated
- the Phase One Conceptual Site Model
- deviations from the sampling and analysis plan, and
- any impediments that were encountered during the execution of this Phase Two ESA.

## 3.1 OVERVIEW OF SITE INVESTIGATION

The primary objectives of the Phase Two ESA are as follows:

- Investigate subsurface soil and groundwater conditions in relation to the potentially contaminating activities and areas of environmental concern as identified in the Phase One ESA (SPL, 2014) for the Phase Two Property.
- Compare soil and groundwater results to the applicable MOE Table 1 SCS.

The Phase Two ESA was carried out according to O. Reg. 153/04 (last amendment: O. Reg. 269/11). The site investigation activities were limited to visible and accessible locations of the Phase Two Property. Subsurface investigations, testing, sampling, and laboratory analyses were completed based on available historical findings, site access, and current site observations.

## 3.2 MEDIA INVESTIGATED

The objective of the Phase Two ESA was to evaluate the environmental condition of the soil, and groundwater at the Phase Two Property. Sediment sampling was not completed as part of the scope of this investigation.

Soil was investigated during the SPL investigation by completing six (6) boreholes. Representative soil samples were retrieved at regular intervals with a split spoon sampler driven with an automatic hammer weighing 140lb dropped from a height of 0.76m.

Monitoring wells were installed at four (4) borehole locations for the purpose of monitoring groundwater elevations and collecting groundwater samples. Groundwater elevations were recorded, and representative groundwater samples were collected at three of the monitoring well locations. Groundwater was not observed within one of the monitoring wells (BH4) at any time during the Phase Two Investigation.

### 3.2.1 SAMPLING AND ANALYSIS PLAN

See Appendix C for the Sampling and Analysis Plan.

Per O. Reg. 153/04 Schedule E. Condition 3(5) WSP developed the Standard operating procedures (SOPs) used in the field investigation, listed in the following table.

Fieldwork for this Phase Two ESA was undertaken following the SOPs. Deviations from the Sampling and Analysis Plan and SOPs, if any, are detailed in Section 5.

**Table 3-1 List of Standard Operating Procedures Used in Field Investigation**

CATEGORY	SOP
1. Boreholes	Soil Sample Material Descriptions
2. Soil Sampling	Field Soil Sampling for VOC Analysis Composite Sampling
3. Soil Field Testing	Odour Identification Field Screening of Samples for Organic Vapours
4. Monitor Construction	Monitoring Well Development
5. Field Measurement of Water Quality Indicators	Temperature Measurement Conductivity Measurement pH Measurement
6. Groundwater Monitoring/Sampling	Water Level Monitoring Non-Aqueous Phase Liquid Level Monitoring Monitor Purging Monitoring Well Sampling Volatile Organic Sampling
7. Quality Assurance/Quality Control (QA/QC) Program	Quality Assurance (QA) Quality Control (QC)

### 3.3 PHASE ONE CONCEPTUAL SITE MODEL

A Phase One ESA in accordance with O.Reg 153/04 (as amended) was conducted concurrently by SPL and is reported under a separate cover. As a result of the Phase One ESA investigation, the following areas of potential environmental concern were determined to exist on the Phase One Property as a result of the potentially contaminating activities identified on and within the vicinity of the Phase One Property, as indicated in the following table.

**TABLE 2: AREAS OF POTENTIAL ENVIRONMENTAL CONCERN**

(Refer to clause 16(2)(a), Schedule D, O.Reg. 153/04)

APEC	Location of APEC	Potentially Contaminating Activities	Location of PCA (on- or off-site)	Contaminant of Potential Concern	Media Potentially Impacted
APEC-1	Phase One Property	30. Importation of Fill Material of Unknown Quality	On-Site	Metals and Inorganics, PHCs, VOCs, PAHs	Soil Groundwater
APEC-2	Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs, VOCs	Soil Groundwater
APEC-3	Phase One Property & Adjoining Lands	40. Pesticides (including herbicides, fungicides and anti-fouling agents) Manufacturing, Processing, Bulk Storage and Large Scale Applications.	On and Off-Site	Metals, OCPs	Soil Groundwater

APEC	Location of APEC	Potentially Contaminating Activities	Location of PCA (on- or off-site)	Contaminant of Potential Concern	Media Potentially Impacted
APEC-4	Perimeter of Phase One Property	Application of de-icing salts	Off-Site (roadways)	EC, SAR	Soil Groundwater
APEC-5	Northern Portion of Phase One Property	46. Rail Yards, Tracks, and Spurs	Off-Site (north neighbouring lands)	PHCs, VOCs, PAHs	Soil Groundwater
APEC-6	Northwestern Portion of Phase One Property	55. Transformer Manufacturing, Processing and Use	Off-Site (Northwestern adjoining lands)	PCBs	Soil

**NOTES:**

1. APEC = Area of Potential Environmental Concern
2. PHC = Petroleum Hydrocarbons
3. VOC = Volatile Organic Compounds
4. PAH = Polycyclic aromatic hydrocarbon
5. EC = Electrical Conductivity
6. SAR = Sodium Adsorption Ratio
7. PCBs = Polychlorinated Biphenyls
8. OCPs = Organochlorine Pesticides

Underground utilities are present on the Phase One Property. Subsurface utility trenching may influence the direction and extent of contamination if determined to exist as a result of areas of potentially contaminating activities.

Based on topographical maps, the groundwater flow direction is expected to be in a north direction towards Georgian Bay. Groundwater levels may be influenced by seasonal variation. Groundwater flow direction can only be confirmed with longer term monitoring.

Information used in this report was evaluated based on proximity to the Phase One Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase One Property as a result of or the use or activity.

The Phase One Conceptual Site Model is shown in **Drawing 2**. Water wells which are located within the Phase One Study area, as identified by the Ministry of the Environment are depicted.

Based on the findings of the Phase One ESA, a Phase Two ESA was recommended to further understand the soil and groundwater condition on the Phase One Property.

### 3.4 DEVIATIONS FROM SAMPLING AND ANALYSIS PLAN

There were no deviations from the sampling and analysis plan.

### **3.5 IMPEDIMENTS**

Physical impediments encountered during the investigation included underground utilities present on the Phase Two Property. Boreholes could not be advanced in areas where underground utilities are present such as bell, hydro or water lines or beneath the existing building.

Boreholes could not be advanced in Archeologically Significant Areas present on the east side of the Phase Two Property.

Soil and groundwater data were collected across the Phase Two Property, and as such these impediments did not limit the ability to meet the requirements of O.Reg 153/04, as amended.

# 4 INVESTIGATION METHOD

## 4.1 GENERAL

The methods used to complete this Phase Two ESA were in general accordance with O. Reg. 153/04 as amended, WSP standard operating procedures and generally accepted industry practices. The Phase Two ESA was generally completed in accordance with the Sampling and Analysis Plan.

## 4.2 DRILLING AND EXCAVATING

WSP staff inspected the Phase Two Property and determined the borehole locations based on the findings of the previous investigations conducted on the property. Details regarding the drilling method, and subcontractor are provided below. The location of underground services and utilities within the Phase Two Property were cleared by the client prior to the commencement of the excavation activities.

**Table 4-1 Summary of Drilling Activities**

Borehole Numbers	Date	Equipment	Subcontractor	Sample Frequency	Measures taken to minimize the potential for cross-contamination,
BH16-01 and BH16-02	March 14, 2016	Geoprobe GM100GT	Strata Soil Sampling Inc.	Continuous	A new sample liner was used for each sample. New disposable gloves were used for each sampling event.
BH9 and BH16	November 10, 2015	CME 55 Trackmount – split spoon sampler	Ontario Drilling Co.	Every 2.5 ft to termination of borehole.	Split spoon sampler was brushed clean of soil, washed in municipal water
BH2	November 11, 2015	CME 55 Trackmount – split spoon sampler	Ontario Drilling Co.	Every 2.5 ft to 10 ft; every 5 ft to termination	containing phosphate free detergent, rinsed in municipal water and then rinsed with distilled water for each sampling interval. New disposable gloves were used for each sampling event.
BH4	November 12, 2015	CME 55 Trackmount – split spoon sampler	Ontario Drilling Co.	Every 2.5 ft to 10 ft; every 5 ft to termination	

## 4.3 SOIL

### 4.3.1 SOIL SAMPLING

Soil samples from the boreholes completed were collected and handled in accordance with generally acceptable sampling and handling procedures used by the environmental consulting industry. Soil samples were recovered using either a macro-core sampler, or a 50 mm split spoon sampler. During

drilling, a new sample liner was used for each sample (macro-core), and 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.

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 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.

### 4.3.2 FIELD SCREENING MEASUREMENTS

Soil samples were examined in the field for lithology as well as for aesthetic evidence of impacts (i.e. debris, staining and odours). The soil headspace monitoring was undertaken to screen soil samples for potential organic contaminants.

**Table 4-2 Summary of Field Screening Information**

INFORMATION PARAMETER	DETAILS
Make and Model of Field Screening Instrument	MiniRae Lite PID, Serial Number 059-4022-000
Chemicals that Field Screening Instrument Detects and Respective Detection Limits	Volatile organic compounds, 0.1 to 5000 ppm
Precision of the Measurements	3 significant figures
Accuracy of the Measurements	± 5% display reading ± one digit
Calibration Reference Standards	isobutylene
Calibration Procedures	The PID was calibrated according to manufacturer procedures prior to use in the field.

## 4.4 GROUNDWATER

### 4.4.1 GROUNDWATER MONITORING WELL INSTALLATION

The monitoring wells installed during this investigation were constructed using 50 mm diameter Schedule 40 polyvinyl chloride (PVC) pipe including a screen section with a factory machined slot width of 0.25 mm and completed with a PVC riser pipe. All pipe and screen sections were wrapped in plastic that was removed just prior to installation to minimize the potential for contamination. The base of the monitoring well was covered with a PVC cap to prevent the influx of sediment. Clean silica sand supplied in bags from a supplier, was placed in the annular space between the pipe and the sides of the borehole to obtain relatively sediment free water. A bentonite seal was added to the annular space above the sand pack to reduce the infiltration of surface water into the borehole annulus. The monitoring wells were completed with protective casings.

The monitoring well was developed and purged prior to sampling using a 1L volume dedicated polyethylene bailer to remove standing water, filter pack water and to allow for the influx of fresh formation water. In accordance with standard operating procedures, all monitoring wells were purged dry and allowed to recover, or three well volumes were removed prior to stabilization. Following the purging and stabilization, the water level was allowed to recover.

#### **4.4.2 GROUNDWATER FIELD MEASUREMENT OF WATER QUALITY PARAMETERS**

All of the monitoring wells were developed prior to sampling in accordance with WSP standard operating procedures. The wells were developed by either removing three well volumes, or were purged dry and allowed to recover. Sampling was conducted using 12.7 mm polyethylene Waterra tubing equipped with a foot valve.

Field measurements of water quality parameters were collected using a Hanna multi-meter as part of this assessment including field pH, electrical conductivity (EC) and temperature. This data has been archived and is available upon request. Field groundwater quality measurements were obtained after the removal of each well volume and were recorded in a dedicated field book.

#### **4.4.3 GROUNDWATER SAMPLING**

Groundwater samples were collected from the installed monitoring wells on November 17, 2015 and March 14, 2016. As part of the groundwater sampling protocol, a 1L volume dedicated polyethylene bailer was used to remove standing water, filter pack water and to allow for the influx of fresh formation water. The samples were transferred directly from the polyethylene bailer into laboratory supplied containers in accordance with groundwater sampling standard operating procedures.

#### **4.5 SEDIMENT SAMPLING**

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

#### **4.6 ANALYTICAL TESTING**

Soil and groundwater samples were submitted to AGAT Laboratories in Mississauga, Ontario, for chemical analysis for the above listed parameters. AGAT Laboratories is certified by the Canadian Association for Laboratory Accreditation (CALA).

#### **4.7 RESIDUE MANAGEMENT PROCEDURES**

Soil cuttings were left on site. Purged groundwater was allowed to re-infiltrate into the ground surface.

#### **4.8 ELEVATION SURVEYING**

The existing ground surface and top of pipe (well casing) elevations of the boreholes and groundwater monitoring wells were surveyed with a reference to a local datum point.

The ground surface elevations are included on the borehole logs in Appendix D.

## 4.9 QUALITY ASSURANCE AND QUALITY CONTROL MEASURES

Soil and groundwater samples were collected and handled in accordance with generally accepted sampling and handling procedures used by the environmental consulting industry and in accordance with O. Reg. 153/04, as amended. All sample containers, preservative, and labels were supplied by the laboratory providing sample analysis. New disposable gloves were used to handle sampling equipment and samples for each individual sampling location.

During groundwater sampling, new disposable gloves were used to handle all sampling equipment and samples for each individual sampling location. All non-dedicated equipment was washed in municipal water containing phosphate free detergent, rinsed in municipal water and then rinsed with distilled water. Additionally, well purging and sample collection was conducted in an order from clean to anticipated contaminated monitoring wells to further eliminate the potential for cross-contamination between sample locations.

As part of the quality assurance/quality control program, a blind duplicate sample was analyzed for 10 % of the soil and groundwater samples completed as part of this investigation and the previous investigation. The blind duplicate samples completed during this investigation are shown in the table below.

Sample ID	Duplicate Sample	Date	Media	Parameter Analysed
BH2 SS2	QA/QC 1	November 11,	Soil	Metals & Inorganics
BH9 SS6	QA/QC 2	November 10,	Soil	VOCs
BH9	QA/QC	November 17,	GW	VOCs
BH16-01 SS2	QAQC	March 23, 2016	Soil	VOCs
MW12-01	QAQC	March 29, 2016	GW	VOCs

NOTES:

1. PHC = Petroleum Hydrocarbons
2. VOC = Volatile Organic Compounds

A trip blank was also analyzed for VOCs as part of the QA/QC program during the groundwater sampling events.

# 5 REVIEW AND EVALUATION

## 5.1 GEOLOGY

A brief summary of the subsurface conditions encountered at the Phase Two Property is presented below. Detailed borehole logs are included in Appendix D.

Topsoil was encountered in all boreholes with an approximate thickness ranging from 120 to 250mm. Fill material was not found in any of the four (4) boreholes (BH2, BH4, BH9 and BH16) that were advanced as part of this Limited Phase Two ESA. Below the topsoil material, native soil consisting of sandy silt till was found in all of the boreholes up to the termination depth with the exception of BH9 where a sandy silt was found underlying the sandy silt till and boreholes BH16-01 and BH16-02 where sand was encountered followed by sand and gravel at 1.5m. A layer of clayey silt till was found in BH4 within the sandy silt till layer. Borehole BH16 was terminated at the assumed bedrock surface. Borehole BH16-02 was advanced into limestone from a depth of 1.9 to 6m.

## 5.2 HYDROGEOLOGY

### 5.2.1 ELEVATIONS AND FLOW DIRECTION

A total of three (3) monitoring wells were installed on the Phase Two Property for the purpose of monitoring groundwater elevations and collecting representative groundwater samples.

There has been no observed groundwater in monitoring well BH4 since its installation indicating that the screened interval of BH4 does not extend into the water table. All monitoring wells were measured using an interface probe which did not indicate the presence of free phase product. The groundwater level elevations during the Phase Two investigation ranged from 172.99 to 202.04masl. During the groundwater sampling event, monitoring well BH4 was observed to be dry and as such the groundwater flow could not be determined. Based on topography, groundwater flow is assumed to be in a north direction. Groundwater levels may be influenced by seasonal fluctuations.

Based on the groundwater levels recorded in 2015 from monitoring wells BH16-1, BH16-2, and BH16-4, the interpreted groundwater flow direction is northeast, as indicated on Figure 5. It is possible that groundwater elevations in this area vary seasonally, and may be under the influence of local de-watering activities.

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were present in any of the monitoring wells on-site.

### 5.2.2 HYDRAULIC GRADIENTS

Given that one of the monitoring wells was dry at the time of this report preparation, the hydraulic gradient across the Limited Phase Two Property was not calculated.

Groundwater levels may fluctuate seasonally.

## 5.3 RESULTS OF ANALYSIS

### 5.3.1 SOIL

#### FINE-MEDIUM SOIL TEXTURE

Soils analyzed during this investigation were compared to the coarse textured soil conditions as a conservative measure.

#### FIELD SCREENING

The results of field screening identified combustible vapour readings ranging from 0 to 5.6 ppm.

#### SOIL QUALITY

As part of this Limited Phase Two ESA, soil samples were collected during drilling events which took place in November 2015 and March 2016.

The results of all soil analyses have been compared to the Background Site Condition Standards as contained in Table 1 of the "Soil, Sediment and Ground Water Standards for Use Under Part XV.1 of the Environmental Protection Act" published by the Ministry of the Environment on April 15, 2011. The Certificates of Analysis are included in **Appendix E**.

##### Metals and Inorganics

A total of seven (7) soil samples collected from boreholes advanced across the Phase Two Property were submitted for analysis for metals and inorganics including one duplicate sample. All soil samples submitted for metals and inorganic parameters met the MOE Table 1 RPI/ICC Standards.

The results of the metals and inorganics analyses can be found in **Table 4**.

##### Organochlorine Pesticides (OCPs)

A total of three (3) soil samples were collected and submitted for analysis of OCPs. All soil samples analyzed for OCP parameters met the Table 1 RPI/ICC Standards.

The results of the OCP analyses can be found in **Table 5**.

##### Polychlorinated Biphenyls (PCBs)

A total of one (1) soil sample was collected and submitted for analysis of PCBs. The samples analyzed for PCB parameters met the Table 1 RPI/ICC Standards.

The results of the PCB analyses can be found in **Table 5**.

##### Polyaromatic Hydrocarbons (PAHs)

A total of five (5) soil samples were collected and submitted for analysis of PAHs. All soil samples analyzed for PAH parameters met the Table 1 RPI/ICC Standards.

The results of the PAH analyses can be found in **Table 6**.

##### Petroleum Hydrocarbons (PHCs)

A total of seven (7) soil samples were collected and submitted for analysis of PHCs from the boreholes. Subsequently an additional twenty (20) PHC samples were submitted for analysis from the test pits. A summary of the PHC impacts identified in soil on the Phase Two Property is provided below.

- Four (4) soil samples BH4 SS5 (3.1-3.4m), BH16 SS3 (1.5-2.1m), TP3 SS2 and TP4 SS3 were found to have elevated concentrations of PHCs above the MOE Table 1RPI/ICC Standards.

- All remaining soil samples submitted for PHC parameters met the MOE Table 1 RPI/ICC Standards.

The results of the PHC analyses can be found in **Table 7**.

#### Volatile Organic Compounds (VOCs)

A total of ten (10) soil samples were collected and submitted for analysis of VOCs including one duplicate sample. Subsequently an additional ten (10) VOC samples were submitted for analysis from the test pits. A summary of the VOC impacts identified in soil on the Phase Two Property is provided below.

- One (1) soil sample BH16 SS3 (1.5-2.1m), failed to meet the MOE Table 1RPI/ICC Standards for both xylene mixture and n-haxane.
- All remaining soil samples submitted for VOC parameters met the MOE Table 1 RPI/ICC Standards.

The results of the VOC analyses can be found in **Table 6**.

#### Odours

No petroleum hydrocarbon odours or staining was observed in soil samples retrieved during this investigation.

### 5.3.2 GROUNDWATER QUALITY

Groundwater samples were collected in November 2015. An additional sampling event was completed in March 2016 for the newly installed monitoring wells at 208 Lakeshore Road.

#### Metals and Inorganics

A total of three (3) groundwater samples were collected and submitted for analysis of metals and inorganic parameters. All groundwater samples analyzed for metals and inorganic parameters met the Table 1 RPI/ICC Standards.

The results of the PHC analyses can be found in **Table 9**.

#### Organochlorine Pesticides (OCPs)

A total of two (2) groundwater samples were collected and submitted for analysis of OCPs. All groundwater samples analyzed for OCPs met the Table 1 RPI/ICC Standards.

The results of the PHC analyses can be found in **Table 10**.

#### Polyaromatic Hydrocarbons (PAHs)

A total of three (3) groundwater samples were collected and submitted for analysis of PAHs. All groundwater samples analyzed for PAHs met the Table 1 RPI/ICC Standards.

The results of the PHC analyses can be found in **Table 11**.

#### Petroleum Hydrocarbons (PHCs)

A total of three (3) groundwater samples were collected and submitted for analysis of PHCs. All groundwater samples analyzed for PHC parameters met the Table 1 RPI/ICC Standards.

The results of the PHC analyses can be found in **Table 12**.

#### Volatile Organic Compounds (VOCs)

A total of three (3) groundwater samples were collected and submitted for analysis of VOCs including a duplicate and a trip blank. All groundwater samples analyzed for VOC parameters met the Table 1 RPI/ICC Standards.

#### **5.3.3 SEDIMENT QUALITY**

No sediment is present on the Phase Two Property, as defined by O.Reg. 153/04 as amended.

### **5.4 QUALITY ASSURANCE AND QUALITY CONTROL RESULTS**

Proper field protocols for sample collection and handling were followed by all WSP personnel to ensure sample integrity was maintained. 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.

Field duplicate samples were assessed as part of the QA/QC program during the Phase Two ESA. A minimum of one field duplicate sample was collected and analyzed for every ten samples for both soil and groundwater.

A trip blank (distilled water sample), prepared by the laboratory, travelled along with the groundwater samples during each sampling event and was analyzed by the laboratory for VOCs. All concentrations were below the RDL, indicating no contamination from the sample containers, preservatives, and 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 E. 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 an appendix to the Phase Two Environmental Site Assessment report.

#### **5.5 PHASE TWO CONCEPTUAL SITE MODEL**

The area under assessment, the Phase Two Property, is an irregular shaped 62.36 acres (25.24 hectares) parcel of land located on the south side of Highway 26, east of highway 19, in the Town of The Blue Mountains, Ontario. The municipal address assigned to the Property is 209621 Highway 26.

As a result of the Phase One ESA investigation, potentially contaminating activities (PCAs) were identified within the Phase One Study Area. Based on the potentially contaminating activities that were identified, the following areas of potential environmental concern (APECs) were determined to exist on the Phase Two Property.

APEC	Location of APEC	Potentially Contaminating Activities	Location of PCA (on- or off-site)	Contaminant of Potential Concern	Media Potentially Impacted
APEC-1	Phase One Property	30. Importation of Fill Material of Unknown Quality	On-Site	Metals and Inorganics, PHCs, VOCs, PAHs	Soil Groundwater
APEC-2	Phase One Property	28. Gasoline and Associated Products Storage in Fixed Tanks	On-Site	PHCs, VOCs	Soil Groundwater
APEC-3	Phase One Property & Adjoining Lands	40. Pesticides (including herbicides, fungicides and anti-fouling agents) Manufacturing, Processing, Bulk Storage and Large Scale Applications.	On and Off-Site	Metals, OCPs	Soil Groundwater
APEC-4	Perimeter of Phase One Property	Application of de-icing salts	Off-Site (roadways)	EC, SAR	Soil Groundwater
APEC-5	Northern Portion of Phase One Property	46. Rail Yards, Tracks, and Spurs	Off-Site (north neighbouring lands)	PHCs, VOCs, PAHs	Soil Groundwater
APEC-6	Northwestern Portion of Phase One Property	55. Transformer Manufacturing, Processing and Use	Off-Site (Northwestern adjoining lands)	PCBs	Soil

**NOTES:**

1. APEC = Area of Potential Environmental Concern
2. PHC = Petroleum Hydrocarbons
3. VOC = Volatile Organic Compounds
4. PAH = Polycyclic aromatic hydrocarbon
5. EC = Electrical Conductivity
6. SAR = Sodium Adsorption Ratio
7. PCBs = Polychlorinated Biphenyls
8. OCPs = Organochlorine Pesticides

The potentially contaminating activities were determined through the site reconnaissance as well as a review of the Fire Insurance Plans, City Directories and other available databases. Contaminants of potential concern as a result of these activities include metals and inorganics, PCBs, OCPs, PHCs and VOCs

Information used in this report was evaluated based on proximity to the Phase Two Property, anticipated direction of local groundwater flow, and the potential environmental impact on the Phase Two Property as a result of or the use or activity.

The Phase Two Conceptual Model consists of this text and the following drawings:

**Drawing 1 – Borehole Location Plan**

Depiction of the Phase Two Property boundaries and layout of boreholes and monitoring wells completed on the Phase Two Property

**Drawing 2 – Conceptual Site Model**

Interpretation of the direction of groundwater flow on the Phase Two Property; based on stratigraphy and groundwater elevations observed during this investigation.

Summary of contaminants identified in soil on the Phase Two Property.

**Drawing 3- Summary of PHC Impacts in Soil**

Summary of contaminants identified in soil on the Phase Two Property.

**Drawing 4- Summary of VOC Impacts in Soil**

Summary of contaminants identified in soil on the Phase Two Property.

Summary of the MOE Water Wells and potentially contaminating activities within the Phase One Study Area identified during the Phase One ESA.

Topsoil was encountered in all boreholes with an approximate thickness ranging from 120 to 250mm. Fill material was not found in any of the four (4) boreholes (BH2, BH4, BH9 and BH16) that were advanced as part of this Limited Phase Two ESA. Below the topsoil material, native soil consisting of sandy silt till was found in all of the boreholes up to the termination depth with the exception of BH9 where a sandy silt was found underlying the sandy silt till and boreholes BH16-01 and BH16-02 where sand was encountered followed by sand and gravel at 1.5m. A layer of clayey silt till was found in BH4 within the sandy silt till layer. Borehole BH16 was terminated at the assumed bedrock surface. Borehole BH16-02 was advanced into limestone from a depth of 1.9 to 6m.

The groundwater level elevations during the Limited Phase Two ESA ranged from 172.99 to 202.04masl masl. During the groundwater sampling event, monitoring well BH4 was observed to be dry and as such the groundwater flow could not be determined. Based on topography, groundwater flow is assumed to be in a north direction. Groundwater levels may be influenced by seasonal fluctuations.

Analyses conducted on soil and groundwater samples collected on the Phase Two Property were compared to the Full Depth Background Site Condition Standards for a residential/parkland/intuitionial/industrial/commercial/community (RPI/ICC) property use, as contained in Table 1 of the “Soil, Sediment and Ground Water Standards for Use Under Part XV.1 of the *Environmental Protection Act*” published by the Ministry of the Environment on April 15, 2011 (the MOE Table 1 RPIICC Standards).

The chemical analyses were conducted by AGAT Laboratories located in Mississauga, Ontario. AGAT Laboratories is a member of the Standards Council of Canada (SCC) and meets the requirements of Section 47 of O.Reg. 153/04 certifying that the analytical laboratory be accredited in accordance with the International Standard ISO/IEC 17025 and with standards developed by the Standards Council of Canada.

During this Limited Phase Two ESA soil samples were collected and submitted for analysis of metals and inorganics, OC Pesticides, PCBs, VOCs, PHCs and PAHs. The results of the analyses indicate the following;

- Four (4) soil samples BH4 SS5 (3.1-3.4m), BH16 SS3 (1.5-2.1m), TP3 SS2 and TP4 SS3 were found to have elevated concentrations of PHCs above the MOE Table 1RPI/ICC Standards.
- One (1) soil sample BH16 SS3 (1.5-2.1m), was found to have elevated concentrations of xylene mixture and n-hexane above the MOE Table 1RPI/ICC Standards.
- The remaining soil samples analyzed met the MOE Table 1 RPI/ICC Standards for the parameters analyzed.

The locations and depths of contaminants identified in soil on the Phase Two Property are depicted in **Drawing 3 and 4**.

During this Limited Phase Two ESA, groundwater samples were collected on November 17, 2015 from two (2) monitoring wells (BH2, and BH9) installed on the Phase Two Property for VOCs, PHCs, PAHs, OC Pesticides and metals and inorganic parameters. The results of the analyses indicate the following:

- All groundwater samples analyzed met the MOE Table 1 Standards for the parameters analyzed.

# 6 CONCLUSIONS

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

- Elevated petroleum hydrocarbon and VOC values in the native soils were detected during the intrusive field investigation in the immediate vicinity of the former fuel storage locations at 209621 Highway 26. If a Record of Site Condition (RSC) is required, additional evaluation would be required to support a filing with the MOECC.
- Alternatively a detailed ecological survey could be conducted to evaluate if this actual site provides habitat for the threatened barn swallow in vicinity of the site. If this site is not habitat then the less stringent MOE criteria would apply and the PHC and VOC values would meet the MOECC criteria beyond a 30 m buffer of the creek banks resulting in no required excavation and/or soil clean-up.
- All monitoring wells will require decommissioning in accordance with Regulation 903 when no longer required.

## 6.1 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 Parkbridge Lifestyle Communities Inc. sole use in the evaluation of the property at 209621 Highway 26 and 208 Lakeshore Road, Blue Mountains, Ontario.

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.

## 6.2 QUALIFICATIONS OF THE ASSESSORS

**Rick Fioravanti, B.Sc.** is a Project Officer in the Toronto, Ontario office of WSP Canada Inc. Rick has obtained a Bachelor of Science Honours Degree with distinction in Toxicology from the University of Guelph, and has conducted numerous Phase One and Phase Two Environmental Site Assessments, remediation work, and hydrogeological field work across the Greater Toronto Area, Ottawa Area, and Quebec since 2011.

**Tijana Medencevic, B.A.** is a Project Manager with SPL. Tijana obtained a Bachelors of Arts Degree in Environmental Studies from Wilfrid Laurier University and has also earned a Post-Graduate Certificate in Environmental Engineering Application at Conestoga College. She has completed many Phase One Environmental Site Assessments, Phase Two Environmental Soil and Groundwater Assessments, Designated Substance Surveys and remediation work in her professional experience.

**Rodney Obdeyn, P.Eng.** is a Senior Environmental Engineer in the Toronto, Ontario office of WSP Canada Inc. Rodney has obtained a Bachelors Degree in Engineering, and is a recognized Professional Engineer in Ontario since 1990. Rodney has conducted and managed hundreds of environmental investigations including Phase One ESAs, Phase Two ESAs, and various site remediation projects across Ontario.

### **6.3 SIGNATURES**

WSP carried out this Phase Two ESA and confirms the findings and conclusions presented in this report.

Report prepared by  
**WSP Canada Inc.**

Scott Watson, B.A.T.  
Project Officer, Environment

Reviewed by

Reviewed by

Tijana Medencevic, B.A.  
Project Manager, Environment

David Lewis, P.Eng. QP<sub>ESA</sub>  
Senior Environmental Engineer, Environment

## 7 REFERENCES

*Ontario Regulation 153/04 made under the Environmental Protection Act, July 1, 2011*

*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, July 1, 2011*

*Rationale for the Development of Soil and Ground Water Standards for Use at Contaminated Sites in Ontario, prepared by the Standards Development Branch, Ontario Ministry of the Environment, dated April 15, 2011*

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# Appendix A

**TABLES**

**Table 1: Monitoring Well Installation & Water Levels**

Monitoring Well	Ground Surface Elevation (masl)	Monitoring Well Depth (mbgs)	17-Nov-15	
			Depth to Groundwater (mbgs)	Groundwater Elevation (masl)
BH2	205.0	18.30	2.96	202.04
BH4	197.0	5.24	dry	dry
BH9	176.0	4.57	3.01	172.99

\*For Table Notes see Notes included at the end of this Section

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

Location/ Borehole	Sample No.	Depth (m)	Date	Chemicals						Rationale
				M & I	OCP	PCBs	PAH	PHCS & BTEX	VOCs	
BH2	SS1	0-0.61	11-Nov-15	✓	✓	-	-	-	-	Representative of native material
	SS2	0.76-1.22	11-Nov-15	✓	-	-	-	-	-	Representative of native material
	SS3	1.52-1.98	11-Nov-15	-	-	-	✓	-	-	Representative of native material
	SS14	16.77-17.03	11-Nov-15	-	-	-	-	✓	✓	Representative of native material at water table
	SS15	18.30-18.55	11-Nov-15	-	-	-	-	-	✓	Representative of native material in water table
BH4	SS2	0.76-1.22	12-Nov-15	✓	-	-	-	-	-	Representative of native material
	SS3	1.52-1.98	12-Nov-15	-	-	-	✓	-	-	Representative of native material
	SS5	3.05-3.35	12-Nov-15	-	-	-	-	✓	✓	Representative of native material at water table
	SS6	4.57-4.88	12-Nov-15	-	-	-	-	-	✓	Representative of native material in water table
BH9	SS1	0-0.61	10-Nov-15	-	✓	-	-	-	-	Representative of native material
	SS2	0.76-1.37	10-Nov-15	✓	-	-	-	-	-	Representative of native material
	SS3	1.52-2.13	10-Nov-15	-	-	-	✓	-	-	Representative of native material
	SS5	3.05-3.66	10-Nov-15	-	-	-	-	✓	✓	Representative of native material at water table
	SS6	3.81-4.42	10-Nov-15	-	-	-	-	-	✓	Representative of native material in water table
BH16	SS1	0-0.61	10-Nov-15	-	✓	✓	-	-	-	Representative of native material
	SS2	0.76-1.37	10-Nov-15	✓	-	-	-	-	-	Representative of native material
	SS3	1.52-2.13	10-Nov-15	-	-	-	-	✓	✓	Representative of native material at bedrock

## Phase Two Environmental Site Assessment

209621 Highway 26, Blue Mountains, Ontario

Location/ Borehole	Sample No.	Depth (m)	Date	Chemicals						Rationale
				M & I	OCP	PCBs	PAH	PHCS & BTEX	VOCs	
TP1	SS1	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS2	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
TP2	SS1	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS2	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
TP3	SS1	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS2	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
TP4	SS1	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS2	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS3	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material at bedrock
	SS4	1.5-2.0	2-Dec-15	-	-	-	-	✓	✓	Representative of native material
TP5	SS1	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
	SS2	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
TP6	SS1	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
	SS2	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
	SS3	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
	SS4	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
TP7	SS1	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
	SS2	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
---	SS1	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material

## Phase Two Environmental Site Assessment

209621 Highway 26, Blue Mountains, Ontario

Location/ Borehole	Sample No.	Depth (m)	Date	Chemicals						Rationale
				M & I	OCP	PCBs	PAH	PHCS & BTEX	VOCs	
TP8	SS2	3.0-3.3	2-Dec-15	-	-	-	-	✓		Representative of native material
QA/QC 1	NA	-	11-Nov-15	✓	-	-	-	-	-	Blind duplicate of BH2 SS2
QA/QC 2	NA	-	10-Nov-15	-	-	-	-	-	✓	Blind duplicate of BH9 SS6
QA/QC 3	NA	-	2-Dec-15	-	-	-	-	-	✓	Blind duplicate of TP1 SS1
QA/QC 4	NA	-	2-Dec-15	-	-	-	-	✓	-	Blind duplicate of TP4 SS3

\*For Table Notes see Notes included at the end of this Section

**Table 3: Summary of Groundwater Samples Submitted for Chemical Analysis**

Borehole	Date	Screened Interval			Chemical Analyses					Rationale
					M&I	OCP	PAH	PHCs & BTEX	VOCs	
BH2	17-Nov-15	15.25	-	18.30	✓	✓	✓	✓	✓	Representative of groundwater
BH9	17-Nov-15	3.05	-	4.57	✓	✓	✓	✓	✓	Representative of groundwater
QA/QC	17-Nov-15	-	-	-	-	-	-	-	✓	Duplicate of BH9
Trip Blank	17-Nov-15	-	-	-	-	-	-	-	✓	Quality assurance/quality control sample

\*For Table Notes see Notes included at the end of this Section

**Table 4: Summary of Metals and Inorganics in Soil**

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	BH9 SS2	BH16 SS2	BH2 SS1	BH2 SS2	BH4 SS2	QA/QC1 (BH2 SS2)
Date of Collection		10-Nov-15	10-Nov-15	11-Nov-15	11-Nov-15	12-Nov-15	11-Nov-15
Date of Analysis		24-Nov-15	24-Nov-15	24-Nov-15	24-Nov-15	24-Nov-15	24-Nov-15
Sampling Depth (m)		0.76-1.37	0.76-1.37	0-0.61	0.76-1.22	0.76-1.22	-
Analytical Report Reference No.		7203934	7203958	7204064	7204065	7204071	7204079
Antimony	1.3	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	18	6	5	4	3	4	3
Barium	220	64	51	28	39	31	31
Beryllium	2.5	0.6	0.7	<0.5	0.5	<0.5	<0.5
Boron (Hot Water Soluble)	NV	0.32	0.33	0.16	1.88	0.3	1.61
Cadmium	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	70	16	17	12	17	16	14
Chromium VI	0.66	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cobalt	21	7.5	7.9	5.7	7.8	7.2	6.2
Copper	92	16	21	21	15	16	13
Lead	120	8	12	7	9	7	8
Mercury	0.27	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Molybdenum	2	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
Nickel	82	25	30	15	21	19	16
Selenium	1.5	0.5	0.5	<0.4	<0.4	<0.4	<0.4
Silver	0.5	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	1	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Vanadium	86	17	18	15	19	17	16
Zinc	290	32	31	25	32	30	28
pH (pH Units)	NV	8.46	8.02	7.83	7.95	7.9	7.98
Conductivity (ms/cm)	0.57	0.188	0.17	0.172	0.308	0.15	0.317
Sodium Adsorption Ratio	2.4	0.289	0.082	0.428	0.941	0.289	0.728
Cyanide, Free	0.051	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Boron (Total)	36	15	16	8	17	14	15
Uranium	2.5	1.1	0.9	0.5	0.8	0.5	0.8

\*For Table Notes see Notes included at the end of this Section

**Table 5: Summary of OC Pesticides + PCBs in Soil**

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	BH9 SS1	BH2 SS1	BH16 SS1
Date of Collection		10-Nov-15	11-Nov-15	10-Nov-15
Date of Analysis		24-Nov-15	24-Nov-15	24-Nov-15
Sampling Depth (m)		0-0.61	0-0.61	0-0.61
Analytical Report Reference No.		<b>7203935</b>	<b>7204064</b>	<b>7203954</b>
Gamma-Hexachlorocyclohexane	0.01	<0.005	<0.005	<0.005
Heptachlor	0.05	<0.005	<0.005	<0.005
Aldrin	0.05	<0.005	<0.005	<0.005
Heptachlor Epoxide	0.05	<0.005	<0.005	<0.005
Endosulfan	0.04	<0.005	<0.005	<0.005
Chlordane	0.05	<0.007	<0.007	<0.007
DDE	0.05	<0.007	<0.007	0.007
DDD	0.05	<0.007	<0.007	<0.007
DDT	1.4	<0.007	<0.007	<0.007
Dieldrin	0.05	<0.005	<0.005	<0.005
Endrin	0.04	<0.005	<0.005	<0.005
Methoxychlor	0.05	<0.005	<0.005	<0.005
Hexachlorobenzene	0.01	<0.005	<0.005	<0.005
Hexachlorobutadiene	0.01	<0.01	<0.01	<0.01
Hexachloroethane	0.01	<0.01	<0.01	<0.01
Aroclor 1242	-	-	-	<0.10
Aroclor 1248	-	-	-	<0.10
Aroclor 1254	-	-	-	<0.10
Aroclor 1260	-	-	-	<0.10
Polychlorinated Biphenyls	0.3	-	-	<0.10

\*For Table Notes see Notes included at the end of this Section

**Table 6: Summary of PAHs in Soil**

Parameter	2011 MOE <b>Table 1</b> RPIICC Coarse Grained Soil	BH9 SS3	BH16 SS2	BH2 SS3	BH4 SS3
Date of Collection		10-Nov-15	10-Nov-15	11-Nov-15	12-Nov-15
Date of Analysis		24-Nov-15	24-Nov-15	24-Nov-15	24-Nov-15
Sampling Depth (m)		1.52-2.13	0.76-1.37	1.52-1.98	1.52-1.98
Analytical Report Reference No.		<b>7203936</b>	<b>7203958</b>	<b>7204066</b>	<b>7204072</b>
Naphthalene	0.09	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	0.093	<0.05	<0.05	<0.05	<0.05
Acenaphthene	0.072	<0.05	<0.05	<0.05	<0.05
Fluorene	0.12	<0.05	<0.05	<0.05	<0.05
Phenanthrene	0.69	<0.05	<0.05	<0.05	<0.05
Anthracene	0.16	<0.05	<0.05	<0.05	<0.05
Fluoranthene	0.56	<0.05	<0.05	<0.05	<0.05
Pyrene	1	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	0.36	<0.05	<0.05	<0.05	<0.05
Chrysene	2.8	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	0.47	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	0.48	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	0.3	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	0.23	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	0.1	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	0.68	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	0.59	<0.05	<0.05	<0.05	<0.05

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	BH9 SS5	BH16 SS3	BH2 SS14	BH4 SS5	TP1 GS1	TP1 SS1	TP1 SS2
Date of Collection		10-Nov-15	10-Nov-15	11-Nov-15	12-Nov-15	2-Dec-15	2-Dec-15	2-Dec-15
Date of Analysis		24-Nov-15	24-Nov-15	24-Nov-15	24-Nov-15	12-Dec-15	12-Dec-15	12-Dec-15
Sampling Depth (m)		3.05-3.66	1.52-2.13	16.77-17.03	3.05-3.35	1.5-2.0	1.5-2.0	1.5-2.0
Analytical Report Reference No.		<b>7203939</b>	<b>7204006</b>	<b>7204067</b>	<b>7204073</b>	<b>7204080</b>	<b>7259163</b>	<b>7259167</b>
Benzene	0.02	-	-	-	-	<0.02		
Toluene	0.2	-	-	-	-	<0.08		
Ethylbenzene	0.05	-	-	-	-	<0.05		
Xylene Mixture	0.05	-	-	-	-	<0.05		
F1 (C6 to C10)	-	<5	7	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	25	<5	7	<5	<5	<5	<5	<5
F2 (C10 to C16)	10	<10	<b>19</b>	<10	<b>18</b>	<10	<10	<10
F3 (C16 to C34)	240	<50	70	<50	58	<50	72	<50
F4 (C34 to C50)	120	<50	<50	<50	<50	<50	<50	<50

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	TP2 SS1	TP2 SS2	TP3 SS1	TP3 SS2	TP4 SS1	TP4 SS2	TP4 SS3
Date of Collection		2-Dec-15						
Date of Analysis		12-Dec-15						
Sampling Depth (m)		1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0
Analytical Report Reference No.		7259170	7259172	7259174	7259176	7259179	7259184	7259191
Benzene	0.02							
Toluene	0.2							
Ethylbenzene	0.05							
Xylene Mixture	0.05							
F1 (C6 to C10)	-	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	25	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	10	<10	<10	<10	<b>14</b>	<10	<10	<b>20</b>
F3 (C16 to C34)	240	<50	<50	<50	130	120	53	240
F4 (C34 to C50)	120	<50	<50	<50	<50	<50	<50	53

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	TP4 SS4	TP4 SS3 Dup	TP5 SS1	TP5 SS2	TP6 SS1	TP6 SS2	TP6 SS3
Date of Collection		2-Dec-15						
Date of Analysis		12-Dec-15						
Sampling Depth (m)		1.5-2.0	1.5-2.0	3.0-3.3	3.0-3.3	3.0-3.3	3.0-3.3	3.0-3.3
Analytical Report Reference No.		<b>7259209</b>	<b>7259193</b>	<b>7259211</b>	<b>7259214</b>	<b>7259216</b>	<b>7259219</b>	<b>7259221</b>
Benzene	0.02		<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	0.2		<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Ethylbenzene	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	0.05		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	-	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	25	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	240	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	120	<50	<50	<50	<50	<50	<50	<50

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	TP6 SS4	TP7 SS1	TP7 SS2	TP8 SS1	TP8 SS2
Date of Collection		2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15
Date of Analysis		12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15
Sampling Depth (m)		3.0-3.3	3.0-3.3	3.0-3.3	3.0-3.3	3.0-3.3
Analytical Report Reference No.		<b>7259223</b>	<b>7259225</b>	<b>7259227</b>	<b>7259229</b>	<b>7259231</b>
Benzene	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	0.2	<0.08	<0.08	<0.08	<0.08	<0.08
Ethylbenzene	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	-	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	25	<5	<5	<5	<5	<5
F2 (C10 to C16)	10	<10	<10	<10	<10	<10
F3 (C16 to C34)	240	<50	<50	<50	<50	<50
F4 (C34 to C50)	120	<50	<50	<50	<50	<50

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	BH9 SS5	BH9 SS6	BH2 SS14	BH2 SS15	BH4 SS5	BH4 SS6	BH16 SS3
Date of Collection		10-Nov-15	10-Nov-15	11-Nov-15	11-Nov-15	12-Nov-15	12-Nov-15	10-Nov-15
Date of Analysis		24-Nov-15						
Sampling Depth (m)		1.52-2.43	1.52-2.43	0-0.91	0-0.91	6.1-6.86	6.1-6.86	1.52-2.13
Analytical Report Reference No.		<b>7203939</b>	<b>7203945</b>	<b>7204067</b>	<b>7204069</b>	<b>7204073</b>	<b>7204075</b>	<b>7204006</b>
Dichlorodifluoromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane		0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane		0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene		0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene		0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene		-	<0.05	<0.05	<0.05	<0.05	<0.05	0.06
Bromoform		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene		-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<b>0.33</b>

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	QA/QC1 (BH9 SS6)	TP1 SS1	TP1 SS2	TP2 SS1	TP2 SS2	TP3 SS1	TP3 SS2
Date of Collection		10-Nov-15	2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15
Date of Analysis		24-Nov-15	12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15
Sampling Depth (m)		1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0
Analytical Report Reference No.		7204079	7259163	7259167	7259170	7259172	7259174	7259176
Dichlorodifluoromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane		0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane		0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene		0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene		0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene		0.05	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone		0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene		0.2	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene		-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Bromoform		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Styrene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene		-	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene		0.05	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane		0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil	TP4 SS1	TP4 SS2	TP4 SS3	TP4 SS4
Date of Collection		2-Dec-15	2-Dec-15	2-Dec-15	2-Dec-15
Date of Analysis		12-Dec-15	12-Dec-15	12-Dec-15	12-Dec-15
Sampling Depth (m)		1.5-2.0	1.5-2.0	1.5-2.0	1.5-2.0
Analytical Report Reference No.		7259179	7259184	7259191	7259209
Dichlorodifluoromethane		0.05	<0.05	<0.05	<0.05
Vinyl Chloride		0.02	<0.02	<0.02	<0.02
Bromomethane		0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane		0.25	<0.05	<0.05	<0.05
Acetone		0.5	<0.50	<0.50	<0.50
1,1-Dichloroethylene		0.05	<0.05	<0.05	<0.05
Methylene Chloride		0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene		0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether		0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane		0.05	<0.02	<0.02	<0.02
Methyl Ethyl Ketone		0.5	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene		0.05	<0.02	<0.02	<0.02
Chloroform		0.05	<0.04	<0.04	<0.04
1,2-Dichloroethane		0.05	<0.03	<0.03	<0.03
1,1,1-Trichloroethane		0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride		0.05	<0.05	<0.05	<0.05
Benzene		0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane		0.05	<0.03	<0.03	<0.03
Trichloroethylene		0.05	<0.03	<0.03	<0.03
Bromodichloromethane		0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone		0.5	<0.50	<0.50	<0.50
1,1,2-Trichloroethane		0.05	<0.04	<0.04	<0.04
Toluene		0.2	<0.05	<0.05	<0.05
Dibromochloromethane		0.05	<0.05	<0.05	<0.05
Ethylene Dibromide		0.05	<0.04	<0.04	<0.04
Tetrachloroethylene		0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane		0.05	<0.04	<0.04	<0.04
Chlorobenzene		0.05	<0.05	<0.05	<0.05
Ethylbenzene		0.05	<0.05	<0.05	<0.05
m & p-Xylene		-	<0.05	<0.05	<0.05
Bromoform		0.05	<0.05	<0.05	<0.05
Styrene		0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane		0.05	<0.05	<0.05	<0.05
o-Xylene		-	<0.05	<0.05	<0.05
1,3-Dichlorobenzene		0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene		0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene		0.05	<0.05	<0.05	<0.05
Xylene Mixture		0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene		0.05	<0.04	<0.04	<0.04
n-Hexane		0.05	<0.05	<0.05	<0.05

\*For Table Notes see Notes included at the end of this Section

**Table 9: Summary of Metals and Inorganics in Groundwater**

Parameter	2011 MOE Table 1	BH2	BH9
Date of Collection		17-Nov-15	17-Nov-15
Date of Analysis		26-Nov-15	26-Nov-15
Analytical Report Reference No.		<b>7207633</b>	<b>7207634</b>
Antimony	1.5	<0.5	<0.5
Arsenic	13	<1.0	2
Barium	610	100	35.9
Beryllium	0.5	<0.5	<0.5
Boron	1700	60.3	1070
Cadmium	0.5	<0.2	<0.2
Chromium	11	<2.0	2.6
Cobalt	3.8	0.7	<0.5
Copper	5	1.2	<1.0
Lead	1.9	<0.5	<0.5
Molybdenum	23	2.8	6.1
Nickel	14	<1.0	1.2
Selenium	5	<1.0	1.6
Silver	0.3	<0.2	<0.2
Thallium	0.5	<0.3	<0.3
Uranium	8.9	3	<0.5
Vanadium	3.9	<0.4	<0.4
Zinc	160	<5.0	<5.0
Mercury	0.1	<0.02	<0.02
Chromium VI	25	<5	<5
Cyanide	5	<2	<2
Sodium	490000	8270	158000
Chloride	790000	13600	264000
Nitrate as N	-	<100	<250
Nitrite as N	-	<100	<250
Electrical Conductivity	-	600	1160
pH	-	8.06	7.96

\*For Table Notes see Notes included at the end of this Section

**Table 10: Summary of OC Pesticides in Groundwater**

Parameter	2011 MOE Table 1	BH9	BH2
Date of Collection		17-Nov-15	17-Nov-15
Date of Analysis		26-Nov-15	26-Nov-15
Analytical Report Reference No.		<b>7207633</b>	<b>7207634</b>
Gamma-Hexachlorocyclohexane	0.01	<0.01	<0.01
Heptachlor	0.01	<0.01	<0.01
Aldrin	0.01	<0.01	<0.01
Heptachlor Epoxide	0.01	<0.01	<0.01
Endosulfan	0.05	<0.05	<0.05
Chlordane	0.06	<0.04	<0.04
DDE	10	<0.01	<0.01
DDD	1.8	<0.05	<0.05
DDT	0.05	<0.04	<0.04
Dieldrin	0.05	<0.02	<0.02
Endrin	0.05	<0.05	<0.05
Methoxychlor	0.05	<0.04	<0.04
Hexachlorobenzene	0.01	<0.01	<0.01
Hexachlorobutadiene	0.01	<0.01	<0.01
Hexachloroethane	0.01	<0.01	<0.01

\*For Table Notes see Notes included at the end of this Section

**Table 11: Summary of PAHs in Groundwater**

Parameter	2011 MOE Table 1	BH9	BH2
Date of Collection		17-Nov-15	17-Nov-15
Date of Analysis		26-Nov-15	26-Nov-15
Analytical Report Reference No.		<b>7207633</b>	<b>7207634</b>
Naphthalene	7	<0.20	<0.20
Acenaphthylene	1	<0.20	<0.20
Acenaphthene	4.1	<0.20	<0.20
Fluorene	120	<0.20	<0.20
Phenanthrene	0.1	<0.10	<0.10
Anthracene	0.1	<0.10	<0.10
Fluoranthene	0.4	<0.20	<0.20
Pyrene	0.2	<0.20	<0.20
Benz(a)anthracene	0.2	<0.20	<0.20
Chrysene	0.1	<0.10	<0.10
Benzo(b)fluoranthene	0.1	<0.10	<0.10
Benzo(k)fluoranthene	0.1	<0.10	<0.10
Benzo(a)pyrene	0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	0.2	<0.20	<0.20
Dibenz(a,h)anthracene	0.2	<0.20	<0.20
Benzo(g,h,i)perylene	0.2	<0.20	<0.20
2-and 1-methyl Naphthalene	2	<0.20	<0.20

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

Parameter	2011 MOE Table 1	BH9	BH2
Date of Collection		17-Nov-15	17-Nov-15
Date of Analysis		26-Nov-15	26-Nov-15
Analytical Report Reference No.		<b>7207633</b>	<b>7207634</b>
F1 (C6 to C10)	-	<25	<25
F1 (C6 to C10) minus BTEX	420	<25	<25
F2 (C10 to C16)	150	<100	<100
F2 (C10 to C16) minus Naphthalene	-	<100	<100
F3 (C16 to C34)	500	<100	<100
F3 (C16 to C34) minus PAHs	-	<100	<100
F4 (C34 to C50)	500	<100	<100

\*For Table Notes see Notes included at the end of this Section

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

Parameter	2011 MOE Table 1	BH9	BH2	QA/QC1 (BH9)	Trip Blank
Date of Collection		17-Nov-15	17-Nov-15	17-Nov-15	17-Nov-15
Date of Analysis		26-Nov-15	26-Nov-15	26-Nov-15	26-Nov-15
Analytical Report Reference No.		<b>7207633</b>	<b>7207634</b>	<b>7207650</b>	<b>7207653</b>
Dichlorodifluoromethane	590	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	0.5	<0.17	<0.17	<0.17	<0.17
Bromomethane	0.89	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	150	<0.40	<0.40	<0.40	<0.40
Acetone	2700	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	0.5	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	5	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	15	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	0.5	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	400	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	1.6	<0.20	<0.20	<0.20	<0.20
Chloroform	2	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	0.5	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	0.5	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	0.2	<0.20	<0.20	<0.20	<0.20
Benzene	0.5	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	0.5	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	0.5	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	2	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	640	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	0.5	<0.20	<0.20	<0.20	<0.20
Toluene	0.8	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	2	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	0.2	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	0.5	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	1.1	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	0.5	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	0.5	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	-	<0.20	<0.20	<0.20	<0.20
Bromoform	5	<0.10	<0.10	<0.10	<0.10
Styrene	0.5	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	0.5	<0.10	<0.10	<0.10	<0.10
o-Xylene	-	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	0.5	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	0.5	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	0.5	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	0.5	<0.30	<0.30	<0.30	<0.30
Xylene Mixture	72	<0.20	<0.20	<0.20	<0.20
n-Hexane	5	0.75	<0.20	0.6	<0.20

\*For Table Notes see Notes included at the end of this Section

**Table 14: Summary of Maximum Concentrations in Soil**

Parameter	Table 1 RPIICC Standards	Maximum Concentration	Location
Metals & Inorganics	Antimony	1.3	<0.8
	Arsenic	18	6
	Barium	220	64
	Beryllium	2.5	0.7
	Boron (Hot Water Soluble)	NV	1.88
	Cadmium	1.2	<0.5
	Chromium	70	17
	Chromium VI	0.66	<0.2
	Cobalt	21	7.9
	Copper	92	21
	Lead	120	12
	Mercury	0.27	<0.10
	Molybdenum	2	0.5
	Nickel	82	30
	Selenium	1.5	0.5
	Silver	0.5	<0.2
	Thallium	1	<0.4
	Vanadium	86	19
	Zinc	290	32
	pH (pH Units)	NV	8.46
	Conductivity (ms/cm)	0.57	0.317
	Sodium Adsorption Ratio	2.4	0.941
	Cyanide, Free	0.051	<0.040
	Boron (Total)	36	17
	Uranium	2.5	1.1
OC Pesticides and PCBs	Gamma-Hexachlorocyclohexane	0.01	<0.005
	Heptachlor	0.05	<0.005
	Aldrin	0.05	<0.005
	Heptachlor Epoxide	0.05	<0.005
	Endosulfan	0.04	<0.005
	Chlordane	0.05	<0.007
	DDE	0.05	0.007
	DDD	0.05	<0.007
	DDT	1.4	<0.007
	Dieldrin	0.05	<0.005
	Endrin	0.04	<0.005
	Methoxychlor	0.05	<0.005
	Hexachlorobenzene	0.01	<0.005
	Hexachlorobutadiene	0.01	<0.01
	Hexachloroethane	0.01	<0.01
	Aroclor 1242	-	<0.10
	Aroclor 1248	-	<0.10
	Aroclor 1254	-	<0.10
	Aroclor 1260	-	<0.10
	Polychlorinated Biphenyls	0.3	<0.10

Parameter	Table 1 RPIICC Standards	Maximum Concentration	Location
PAH	Naphthalene	0.09	<0.05
	Acenaphthylene	0.093	<0.05
	Acenaphthene	0.072	<0.05
	Fluorene	0.12	<0.05
	Phenanthrene	0.69	<0.05
	Anthracene	0.16	<0.05
	Fluoranthene	0.56	<0.05
	Pyrene	1	<0.05
	Benz(a)anthracene	0.36	<0.05
	Chrysene	2.8	<0.05
	Benzo(b)fluoranthene	0.47	<0.05
	Benzo(k)fluoranthene	0.48	<0.05
	Benzo(a)pyrene	0.3	<0.05
	Indeno(1,2,3-cd)pyrene	0.23	<0.05
	Dibenz(a,h)anthracene	0.1	<0.05
PHCs	Benzo(g,h,i)perylene	0.68	<0.05
	2-and 1-methyl Naphthalene	0.59	<0.05
	Benzene	0.02	<0.02
	Toluene	0.2	<0.08
	Ethylbenzene	0.05	<0.05
	Xylene Mixture	0.05	<0.05
	F1 (C6 to C10)	-	7
	F1 (C6 to C10) minus BTEX	25	7
VOCS	F2 (C10 to C16)	10	<b>20</b>
	F3 (C16 to C34)	240	70
	F4 (C34 to C50)	120	<50
	Dichlorodifluoromethane	0.05	<0.05
	Vinyl Chloride	0.02	<0.02
	Bromomethane	0.05	<0.05
	Trichlorofluoromethane	0.25	<0.05
	Acetone	0.5	<0.50
	1,1-Dichloroethylene	0.05	<0.05
	Methylene Chloride	0.05	<0.05
	Trans- 1,2-Dichloroethylene	0.05	<0.05
	Methyl tert-butyl Ether	0.05	<0.05
	1,1-Dichloroethane	0.05	<0.02
	Methyl Ethyl Ketone	0.5	<0.50
	Cis- 1,2-Dichloroethylene	0.05	<0.02
	Chloroform	0.05	<0.04

Parameter	Table 1 RPIICC Standards	Maximum Concentration	Location
VOCs (continued)	Bromodichloromethane	0.05	<0.05
	Methyl Isobutyl Ketone	0.5	<0.50
	1,1,2-Trichloroethane	0.05	<0.04
	Toluene	0.2	<0.05
	Dibromochloromethane	0.05	<0.05
	Ethylene Dibromide	0.05	<0.04
	Tetrachloroethylene	0.05	<0.05
	1,1,1,2-Tetrachloroethane	0.05	<0.04
	Chlorobenzene	0.05	<0.05
	Ethylbenzene	0.05	<0.05
	m & p-Xylene	-	BH16 SS3
	Bromoform	0.05	<0.05
	Styrene	0.05	<0.05
	1,1,2,2-Tetrachloroethane	0.05	<0.05
	o-Xylene	-	<0.05
	1,3-Dichlorobenzene	0.05	<0.05
	1,4-Dichlorobenzene	0.05	<0.05
	1,2-Dichlorobenzene	0.05	<0.05
	Xylene Mixture	0.05	<b>0.06</b>
	1,3-Dichloropropene	0.05	<0.04
	n-Hexane	0.05	<b>0.33</b>

**Table 15: Summary of Maximum Concentrations in Groundwater**

Parameter	Table 1 Standards	Maximum Concentration	Location
Metals & Inorganics	Antimony	1.5	<0.5
	Arsenic	13	2
	Barium	610	100
	Beryllium	0.5	<0.5
	Boron	1700	1070
	Cadmium	0.5	<0.2
	Chromium	11	2.6
	Cobalt	3.8	0.7
	Copper	5	1.2
	Lead	1.9	<0.5
	Molybdenum	23	6.1
	Nickel	14	1.2
	Selenium	5	1.6
	Silver	0.3	<0.2
	Thallium	0.5	<0.3
	Uranium	8.9	3
	Vanadium	3.9	<0.4
	Zinc	160	<5.0
	Mercury	0.1	<0.02
	Chromium VI	25	<5
	Cyanide	5	<2
	Sodium	490000	158000
	Chloride	790000	264000
	Nitrate as N	-	<100
	Nitrite as N	-	<100
	Electrical Conductivity	-	1160
	pH	-	8.06
OC Pesticides	Gamma-Hexachlorocyclohexane	0.01	<0.01
	Heptachlor	0.01	<0.01
	Aldrin	0.01	<0.01
	Heptachlor Epoxide	0.01	<0.01
	Endosulfan	0.05	<0.05
	Chlordane	0.06	<0.04
	DDE	10	<0.01
	DDD	1.8	<0.05
	DDT	0.05	<0.04
	Dieldrin	0.05	<0.02
	Endrin	0.05	<0.05
	Methoxychlor	0.05	<0.04
	Hexachlorobenzene	0.01	<0.01
	Hexachlorobutadiene	0.01	<0.01
	Hexachloroethane	0.01	<0.01

Parameter	Table 1 Standards	Maximum Concentration	Location	
PAH	Naphthalene	7	<0.20	all samples
	Acenaphthylene	1	<0.20	all samples
	Acenaphthene	4.1	<0.20	all samples
	Fluorene	120	<0.20	all samples
	Phenanthrene	0.1	<0.10	all samples
	Anthracene	0.1	<0.10	all samples
	Fluoranthene	0.4	<0.20	all samples
	Pyrene	0.2	<0.20	all samples
	Benz(a)anthracene	0.2	<0.20	all samples
	Chrysene	0.1	<0.10	all samples
	Benzo(b)fluoranthene	0.1	<0.10	all samples
	Benzo(k)fluoranthene	0.1	<0.10	all samples
	Benzo(a)pyrene	0.01	<0.01	all samples
	Indeno(1,2,3-cd)pyrene	0.2	<0.20	all samples
	Dibenz(a,h)anthracene	0.2	<0.20	all samples
	Benzo(g,h,i)perylene	0.2	<0.20	all samples
	2-and 1-methyl Naphthalene	2	<0.20	all samples
PHCs	F1 (C6 to C10)	-	<25	all samples
	F1 (C6 to C10) minus BTEX	420	<25	all samples
	F2 (C10 to C16)	150	<100	all samples
	F2 (C10 to C16) minus Naphthalene	-	<100	all samples
	F3 (C16 to C34)	500	<100	all samples
	F3 (C16 to C34) minus PAHs	-	<100	all samples
	F4 (C34 to C50)	500	<100	all samples
VOCs	Dichlorodifluoromethane	590	<0.20	all samples
	Vinyl Chloride	0.5	<0.17	all samples
	Bromomethane	0.89	<0.20	all samples
	Trichlorofluoromethane	150	<0.40	all samples
	Acetone	2700	<1.0	all samples
	1,1-Dichloroethylene	0.5	<0.30	all samples
	Methylene Chloride	5	<0.30	all samples
	trans- 1,2-Dichloroethylene	1.6	<0.20	all samples
	Methyl tert-butyl ether	15	<0.20	all samples
	1,1-Dichloroethane	0.5	<0.30	all samples
	Methyl Ethyl Ketone	400	<1.0	all samples
	cis- 1,2-Dichloroethylene	1.6	<0.20	all samples
	Chloroform	2	<0.20	all samples
	1,2-Dichloroethane	0.5	<0.20	all samples
	1,1,1-Trichloroethane	0.5	<0.30	all samples
	Carbon Tetrachloride	0.2	<0.20	all samples
	Benzene	0.5	<0.20	all samples
	1,2-Dichloropropane	0.5	<0.20	all samples
	Trichloroethylene	0.5	<0.20	all samples
	Bromodichloromethane	2	<0.20	all samples
	Methyl Isobutyl Ketone	640	<1.0	all samples

VOCs (continued)

Parameter	Table 1 Standards	Maximum Concentration	Location
1,1,2-Trichloroethane	0.5	<0.20	all samples
Toluene	0.8	<0.20	all samples
Dibromochloromethane	2	<0.10	all samples
Ethylene Dibromide	0.2	<0.10	all samples
Tetrachloroethylene	0.5	<0.20	all samples
1,1,1,2-Tetrachloroethane	1.1	<0.10	all samples
Chlorobenzene	0.5	<0.10	all samples
Ethylbenzene	0.5	<0.10	all samples
m & p-Xylene	-	<0.20	all samples
Bromoform	5	<0.10	all samples
Styrene	0.5	<0.10	all samples
1,1,2,2-Tetrachloroethane	0.5	<0.10	all samples
o-Xylene	-	<0.10	all samples
1,3-Dichlorobenzene	0.5	<0.10	all samples
1,4-Dichlorobenzene	0.5	<0.10	all samples
1,2-Dichlorobenzene	0.5	<0.10	all samples
1,3-Dichloropropene	0.5	<0.30	all samples
Xylene Mixture	72	<0.20	all samples
n-Hexane	5	0.75	BH9

**Notes for Soil & Groundwater Summary Tables**

1. mbgs = Meters below ground surface
2. masl = Meters above sea level
3. Sampling Depth (m) for groundwater samples indicates the screen depth of the monitoring well
4. Units for all soil analyses are in  $\mu\text{g/g}$  (ppm) unless otherwise indicated
5. Units for all groundwater analyses are in  $\mu\text{g/L}$  (ppb) unless otherwise indicated
6. Table 1 RPIICC = Full Depth Background Site Condition Standards for a Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use with Coarse Textured Soils as contained in Table 1 of the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", published by the MOE on April 15, 2011
7. PWQO = Provincial Water Quality Objectives
8. **Bold** = Concentration exceeds Table 1 RPIICC Standards
9. " - " = Parameter not analysed
10. <x.x = Concentration less than the reported detection limit for samples analyzed
11. Analytical Report Reference No. indicates laboratory report reference number
12. VOCs = Volatile Organic Compounds
13. PHCs & BTEX = Petroleum Hydrocarbons and Benzene, Toluene, Ethylbenzene and Xylenes
14. M&I = Metals and Inorganics

# Appendix B

**FIGURES**



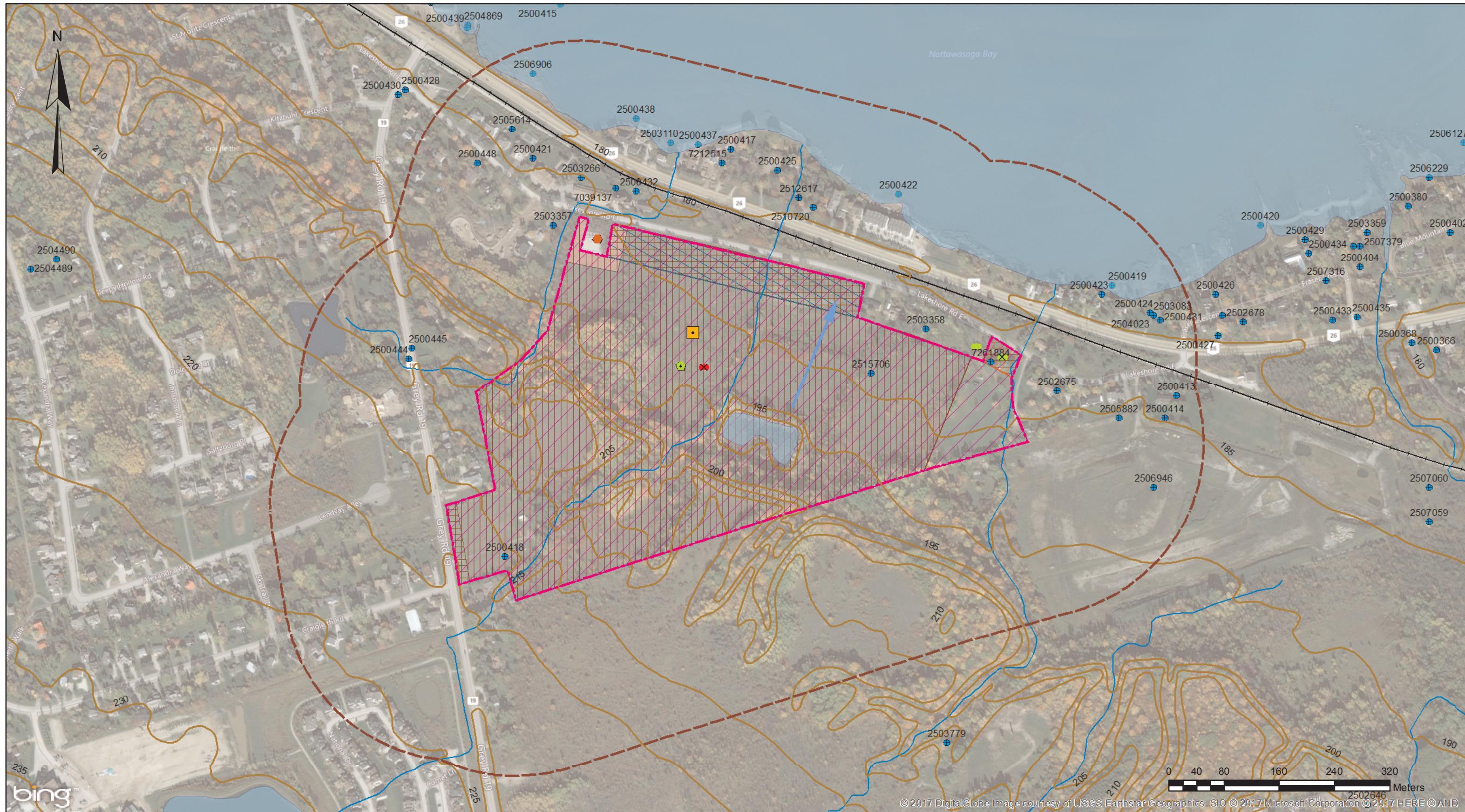
Legend:

- Phase Two Property

Borehole

Monitoring Well

Client:	Parkbridge Lifestyle Communities Inc.	Project No.:	10002290-220	Drawing No.:	1
Drawn:	RA	Approved:	DL	Title:	BOREHOLE LOCATION PLAN
Date:	April 2016	Scale:	As Shown	Project:	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 209621 HIGHWAY 26, BLUE MOUNTAINS, ONTARIO
Original Size:	Tabloid	Rev:	N/A		



LEGEND:

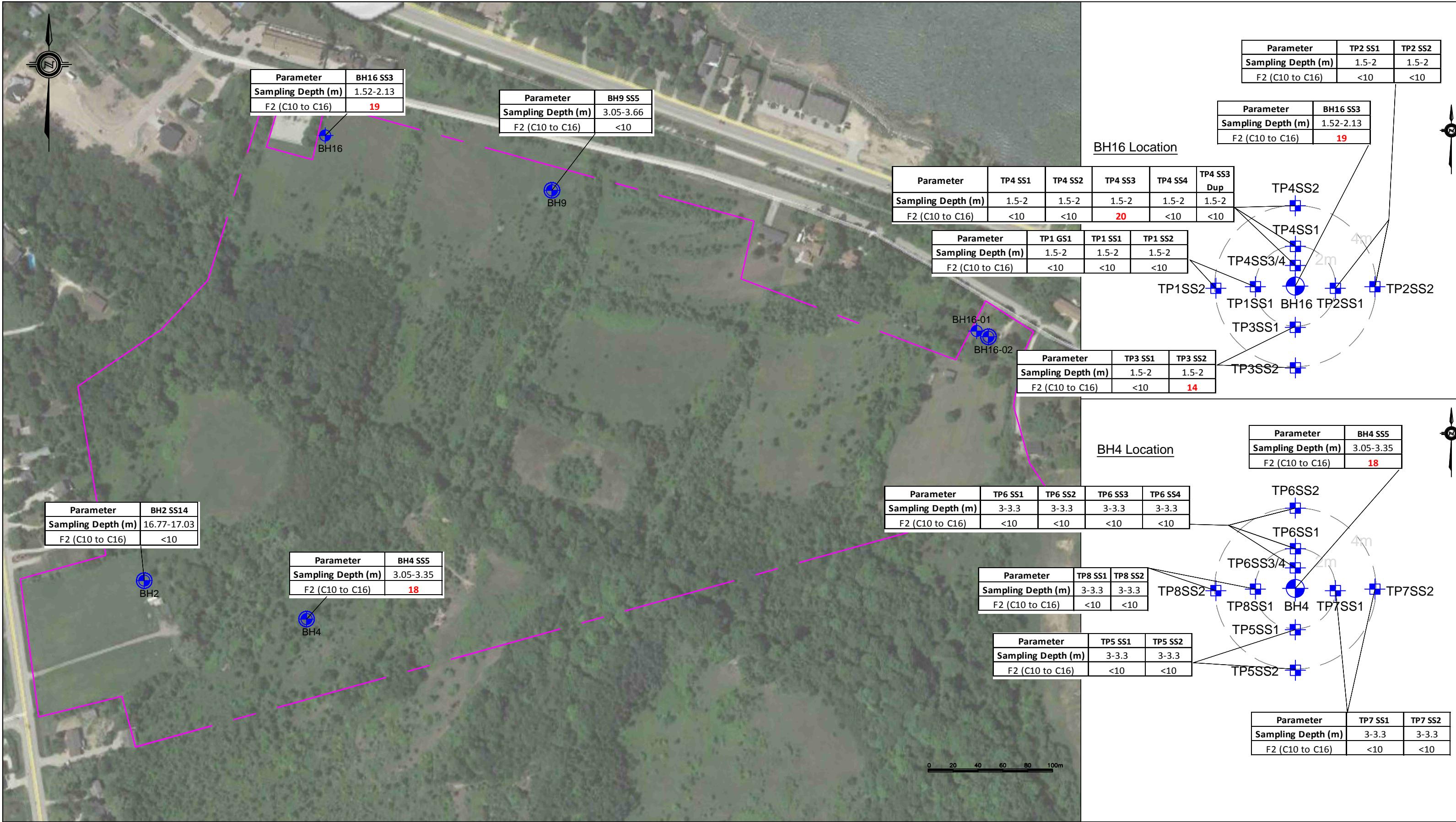
- 250m Study Area
- Phase One Property
- APEC1
- APEC2
- APEC 2 & 3
- APEC3
- APEC4
- APEC5
- APEC6
- Water
- Inferred Groundwater Flow Direction
- Contour Line
- PCA28 Current AST
- PCA28 Former AST
- River
- PCA46 Rail Yards, Tracks and Spurs
- PCA55 Transformer Manufacturing, Processing, and Use
- PCA40 Pesticide Use
- PCA30 Fill of Unknown Quality
- PCA28 Gas & Associated Products Storage in Fixed Tanks
- MOECC Waterwell

Note: This drawing should be read in conjunction with the accompanying report.

Source: Golden Horseshoe GIS Database 2002

Client:	Parkridge Lifestyle Communities Inc.		Project No.:	10002290-220	Drawing No.:	2
Drawn:	RA	Approved:	DL	Title:	PHASE ONE CONCEPTUAL SITE MODEL	
Date:	April 2016	Scale:	As Shown	Project:	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 209621 HIGHWAY 26, BLUE MOUNTAINS, ONTARIO	
Original Size:	Tabloid	Rev:	0			





**Legend:**

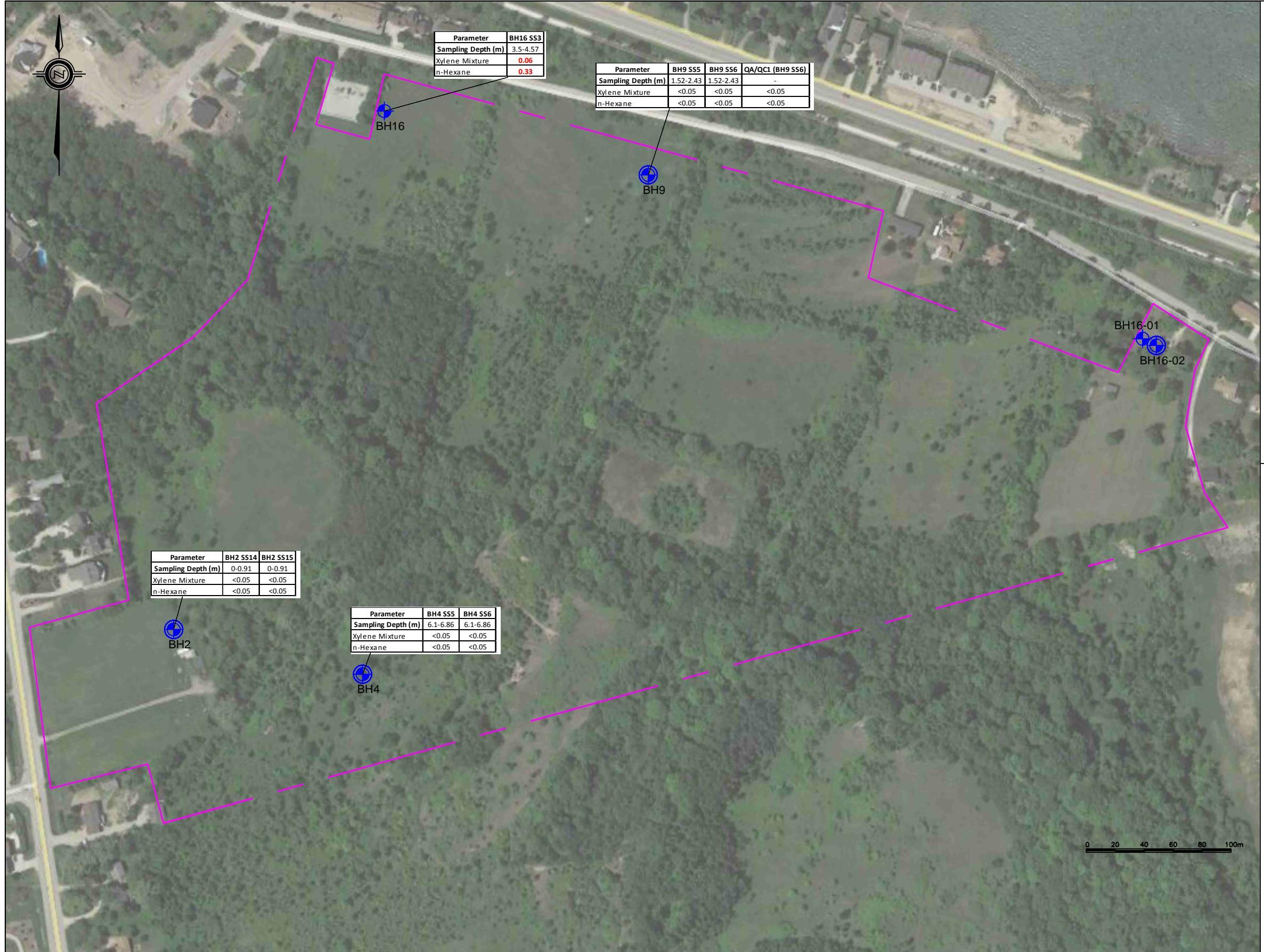
Report

 Microsoft Word

Monitor

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil
F2 (C10 to C16)	10

Client:	<b>Parkbridge Lifestyle Communities Inc.</b>		Project No.:	<b>10002290-220</b>	Drawing No.:	<b>3</b>
Drawn:	<b>RA</b>	Approved:	<b>DL</b>	Title: <b>PHCs IN SOIL</b>		
Date:	<b>April 2016</b>	Scale:	<b>As Shown</b>	Project:	<b>PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 209621 HIGHWAY 26, BLUE MOUNTAINS, ONTARIO</b>	
Original Size:	<b>Tabloid</b>	Rev:	<b>N/A</b>			



Legend:

- Phase Two Property (Pink dashed line)
- Borehole (Blue circle)
- Monitoring Well (Blue circle with cross)
- Test Pit (Blue square)

Parameter	2011 MOE Table 1 RPIICC Coarse Grained Soil
Xylene Mixture	0.05
n-Hexane	0.05

Client:	Parkbridge Lifestyle Communities Inc.		Project No.:	10002290-220	Drawing No.:	4
Drawn:	RA		Approved:	DL	Title:	VOCs IN SOIL
Date:	April 2016		Scale:	As Shown	Project:	PHASE TWO ENVIRONMENTAL SITE ASSESSMENT 209621 HIGHWAY 26, BLUE MOUNTAINS, ONTARIO
Original Size:	Tabloid		Rev:	N/A		



# Appendix C

**SAMPLING AND ANALYSIS PLAN**



Project No: 151-62850-00

October 30, 2015

**Parkbridge Lifestyle Communities Inc.**  
690 River Road West  
Wasaga Beach, ON  
L9Z 2P1

**Attention: Mr. Sandy Higgins**

**Phase Two Environmental Site Assessment  
209621 Highway 26, Blue Mountains, ON**

WSP is pleased to prepare a Sampling and Analysis Plan to complete a Phase Two Environmental Site Assessment (ESA) for the above noted property. The Phase Two ESA will be completed in accordance with O.Reg. 153/04, as amended.

**1. BACKGROUND AND OBJECTIVES**

A Phase Two ESA will be conducted in accordance with O. Reg. 153/04, as amended.

A program of soil and groundwater sampling with chemical analysis for volatile organic compounds (VOCs), petroleum hydrocarbons (PHCs), polycyclic aromatic hydrocarbons (PAH), organochlorine (OC) pesticides, polychlorinated biphenyl's (PCBs) and metals and inorganic parameters is proposed. The subsurface program will utilize drilling equipment to complete four (4) boreholes across the subject site; install three (3) groundwater monitoring wells to understand the soil and groundwater quality at depth on the subject site.

A summary of the associated tasks are included below.

- Advance four(4) boreholes, for the purpose of collecting representative soil samples;
- Develop three (3) newly installed monitoring wells and collect representative groundwater samples for laboratory analysis;
- Monitor water levels in all SPL installed monitoring wells;
- Survey the measuring point elevation at each monitoring well and borehole;
- Measure combustible gas levels in all retrieved soil samples from environmental boreholes as a preliminary screening method for combustible vapours; and,
- Have all chemical analysis conducted by a CALA laboratory in accordance with the Ontario Ministry of the Environment standards and requirements of O.Reg. 153/04, as amended under the Environmental Protection Act.

## QUALITY ASSURANCE/QUALITY CONTROL PLAN

During the investigation, following the QA/QC Plan will ensure sample integrity and validity of the analytical data. Sample collection and handling will be of the utmost importance to ensure the data is reliable and defensible. To achieve this, all soil and groundwater samples will be collected and handled in accordance with generally accepted sampling and handling procedures used by the environmental consulting industry. All sample containers, preservative, and labels will be supplied by the laboratory providing sample analysis. All non-dedicated sampling equipment will be cleaned following sampling events using phosphate free detergent and rinsed with distilled water. New disposable gloves will be used to handle sampling equipment and samples for each individual sampling location. As part of the quality assurance/quality control program, a blind duplicate sample will be analyzed for 10 % of the soil and 10 % of the groundwater samples completed as part of this investigation.

### 2. DATA QUALITY OBJECTIVES

All soil and groundwater sampling will be carried out in accordance with SPL Standard Operating Procedures (SOPs). Laboratory analyses will be completed in accordance with the requirements of O.Reg. 153/04, as amended, under the Environmental Protection Act. The proposed analytical program will include verification that minimum detection limits are less than the applicable site condition standards. In cases where reported detection limits have been raised above the applicable standards, a discussion will be provided to support the results.

The chemical analyses will be conducted by AGAT Laboratories located in Mississauga, Ontario. AGAT is a member of the Canadian Association for Laboratory Accreditation (CALA) and meets the requirements of Section 47 of O.Reg. 153/04, as amended, certifying that the analytical laboratory be accredited in accordance with the International Standard ISO/IEC 17025 and with standards developed by the Standards Council of Canada.

Should you have any questions regarding this Sampling and Analysis Plan, please do not hesitate to contact the undersigned at our office.

Yours Very Truly,

**SPL Consultants Limited**



David Lewis, P.Eng.  
Principal Engineer

# Appendix D

**BOREHOLE LOGS**

**LOG OF BOREHOLE BH16**

1 OF 1

PROJECT: 299621 Highway 26 CLIENT: Parkbridge Lifestyle Communities Inc. PROJECT LOCATION: 299621 Highway 26, Blue Mountains, Ontario DATUM: Geodetic BH LOCATION: field off Lakeshore Rd. adjacent transformer station N 4930179 E 553882							<b>DRILLING DATA</b> Method: Solid Stem Auger Diameter: 0.152 Date: Nov/10/2015 REF. NO.: 10002290-220 ENCL NO.: 4							
<b>SOIL PROFILE</b>														
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	N <sup>o</sup> BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustable Vapor Reading (ppm)	PLASTIC LIMIT W <sub>P</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	POCKET PEN (Cu) (kPa)	NATURAL UNIT WT (Mg/m <sup>3</sup> )	REMARKS AND GRAIN SIZE DISTRIBUTION (%) GR SA SI CL
179.0														
0.0	<b>TOPSOIL:</b> 120mm Sandy silt with gravel and organics, brown, moist, loose		1	SS										
178.4														
0.6	<b>SANDY SILT:</b> With gravel some cobble, brown, moist		2	SS	19									
176.7			3	SS	46									
2.3	<b>END OF BOREHOLE:</b> Notes: 1) Borehole terminated after refusal at presumed bedrock surface.													

PROJECT: 299621 Highway 26						DRILLING DATA					
CLIENT: Parkbridge Lifestyle Communities Inc.						Method: Solid Stem Auger					
PROJECT LOCATION: 299621 Highway 26, Blue Mountains, Ontario						Diameter: 0.152					
DATUM: Geodetic						Date: Nov/11/2015					
BH LOCATION: field off Grey CR 19 N 4929800 E 553743						REF. NO.: 10002290-220					
ENCL NO.: 1											
SOIL PROFILE		SAMPLES		HEAD SPACE COMBUSTABLE VAPOR READING (PPM)		PLASTIC LIMIT		NATURAL MOISTURE CONTENT		LIQUID LIMIT	
(m) ELEV DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	W <sub>P</sub>	W	W <sub>L</sub>	POCKET PEN (Cu) (kPa)
205.0	0.0 <b>TOPSOIL:</b> 250mm Sandy silt with organics, some gravel, brown, moist, loose		1	SS			205				NATURAL UNIT WT (Mg/m <sup>3</sup> )
204.4	0.6 <b>SANDY SILT:</b> With gravel some cobble, brown, moist, hard to very hard	Mottled grey below 2.4 m	2	SS	100/9"		204				REMARKS AND GRAIN SIZE DISTRIBUTION (%)
			3	SS	100/9"		203				GR SA SI CL
			4	SS	100/10"		202				
			5	SS	100/9"		201				
			6	SS	100/4"		200				
198.9	6.1 <b>CLAYEY SILT:</b> Some gravel, trace sand, some plasticity, grey, moist		7	SS	32		199				
197.1	7.9 <b>SANDY SILT:</b> With gravel some cobble, grey, moist, very hard		8	SS	100/11"		198				
			9	SS	100/4"		197				
			10	SS	100/4"		196				
							195				
							194				
							193				

SPL SOIL LOG WITH VOC 0-12 PPM CRAIGLEITH.GPJ SPL.GDT 11/30/15

Continued Next Page

GROUNDWATER ELEVATIONS

 GRAPH  
NOTES

+ 3 , X 3 : Numbers refer to Sensitivity

○ ε=3% Strain at Failure

 Shallow/ Single Installation  Deep/Dual Installation  

PROJECT: 299621 Highway 26							DRILLING DATA							
CLIENT: Parkbridge Lifestyle Communities Inc.							Method: Solid Stem Auger							
PROJECT LOCATION: 299621 Highway 26, Blue Mountains, Ontario							Diameter: 0.152							
DATUM: Geodetic							Date: Nov/11/2015							
BH LOCATION: field off Grey CR 19 N 4929800 E 553743							REF. NO.: 10002290-220							
SOIL PROFILE							SAMPLES							
(m) ELEV DEPTH	DESCRIPTION			STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustable Vapor Reading (ppm)				
	<b>SANDY SILT:</b> With gravel some cobble, grey, moist, very hard(Continued)				11	SS	100/ 10"			2	4	6	8	10
					12	SS	100/ 9"			192				
				Boulder	13	SS	100/ 2"			191				
188.2					14	SS	100/ 4"			190				
16.8	<b>SILTY SAND:</b> With gravel, grey, moist, very compact				14	SS	100/ 4"			189				
186.5					14	SS	100/ 4"			50mm PVC Slot 10 Screen	188			
18.6	<b>END OF BOREHOLE:</b> Notes: 1) A 50mm dia. monitoring well was installed upon completion of drilling, screened from 15.25 mbgs to 18.3 mbgs. ===== Water Level Measurements Date WL(mbgl) WL Elv. 16-11-15 2.96 202.04									187				

PROJECT: 299621 Highway 26						DRILLING DATA										
CLIENT: Parkbridge Lifestyle Communities Inc.						Method: Solid Stem Auger										
PROJECT LOCATION: 299621 Highway 26, Blue Mountains, Ontario						Diameter: 0.152										
DATUM: Geodetic						Date: Nov/12/2015										
BH LOCATION: field off Grey CR 19 N 4929772 E 553880						REF. NO.: 10002290-220										
ENCL NO.: 2																
<b>SOIL PROFILE</b>						<b>SAMPLES</b>										
(m) ELEV DEPTH	DESCRIPTION			STRATA PLOT	NUMBER	TYPE	"N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Head Space Combustable Vapor Reading (ppm)						
197.0	0.0 <b>TOPSOIL:</b> 120mm Sandy silt with organics, some gravel, brown, moist, loose				1	SS				Cemented Protective Casing						
196.4	0.6 <b>SANDY SILT:</b> With gravel some cobble, brown, moist, hard to very hard				2	SS	51		196	Bentonite						
	Mottled grey below 1.8 m				3	SS	100/11"		195	Sand						
	Boulder				4	SS	100/9"		194	Screen						
					5	SS	100/5"		193							
					6	SS	100/5"		192							
191.7	5.3 <b>END OF BOREHOLE:</b> Notes: 1) A 50mm dia. monitoring well was installed upon completion of drilling, screened from 3.80 mbgs to 5.30 mbgs.  ===== Water Level Measurements Date WL(mbgl) WL Elv. 16-11-15 dry na 16-11-15 dry na				7	SS	100/3"									
GRAPH NOTES + <sup>3</sup> , X <sup>3</sup> : Numbers refer to Sensitivity																
○ ε=3% Strain at Failure																
GROUNDWATER ELEVATIONS																
Shallow/ Single Installation ▼ Deep/Dual Installation ▼ ▼																

PROJECT: 299621 Highway 26							DRILLING DATA				
CLIENT: Parkbridge Lifestyle Communities Inc.							Method: Solid Stem Auger				
PROJECT LOCATION: 299621 Highway 26, Blue Mountains, Ontario							Diameter: 0.152				
DATUM: Geodetic							Date: Nov/10/2015				
BH LOCATION: field off Lakeshore Rd. N 4930139 E 554074											
SOIL PROFILE		SAMPLES		HEAD SPACE COMBUSTABLE VAPOR READING (PPM)		WATER CONTENT (%)		PLASTIC LIMIT		NATURAL MOISTURE CONTENT	
(m) ELEV. DEPTH	DESCRIPTION	STRATA PLOT	NUMBER	TYPE	N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	W <sub>P</sub>	W	W <sub>L</sub>	LIQUID LIMIT
176.0	TOPSOIL: 150mm Sandy silt with gravel and organics, brown, moist, loose		1	SS			Cemented Protective Casing				
175.4	SANDY SILT: With gravel some cobble, brown, moist, hard to very hard		2	SS	66		Bentonite				
173.7	SILTY SAND to SANDY SILT: Trace gravel, brown, moist to wet, soft to stiff  Grey below 3.1 m		3	SS	37		Sand				
171.4			4	SS	12		173 W. L. 173.0 m Nov 16, 2015				
4.6	END OF BOREHOLE: Notes: 1) Borehole terminated after refusal at presumed bedrock surface. 1) A 50mm dia. monitoring well was installed upon completion of drilling, screened from 3.00 mbgs to 4.50 mbgs.  ===== Water Level Measurements Date WL(mbgl) WL Elv. 16-11-15 3.01 179.99		5	SS	38		Screen				
			6	SS	7		172				

PROJECT: Phase II ESGI				DRILLING DATA											
CLIENT: Parkbridge Lifestyle Communities Inc.				Method: GM100GT											
PROJECT LOCATION: 208 Lakshore Road, Blue Mountains, ON				Diameter: 100											
DATUM: Geodetic				Date: Mar/14/2016											
BH LOCATION:				REF. NO.: 151-62850-00											
				ENCL NO.: 2											
SOIL PROFILE				Soil Head Space Vapors											
(m)	ELEV DEPTH	DESCRIPTION		NUMBER	TYPE	1" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	PID (ppm)	CGD (% LEL)	PLASTIC LIMIT W <sub>p</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>l</sub>	REMARKS AND GRAIN SIZE DISTRIBUTION (%)	
		STRATA PLOT													
0.0		TOPSOIL: 10 cm													
0.1		SAND: trace gravel, trace clay and silt, trace organics, brown, moist to very moist													
0.4		wet													
1.4		greyish brown													
1.8		SAND AND GRAVEL: grey, very moist to wet													
1.9		WEATHERED LIMESTONE: SAND AND GRAVEL, some silt to silty, trace to some clay, grey, moist to very moist													
2.4		LIMESTONE: no sample obtained													
6.1		END OF BOREHOLE: Notes: 1. Groundwater Monitoring Well installed upon completion. 2. Water level was 1.1 mbg in MW upon completion and 0.91 mbg on 3/29/2016.													
0-10 PPM AND 0-10% LEL LOGS GPJ SPL.GDT 2/15/17															
GROUNDWATER ELEVATIONS				GRAPH NOTES				+ 3, X 3: Numbers refer to Sensitivity	● = 3% Strain at Failure						
Measurement	1st	2nd	3rd	4th											

PROJECT: Phase II ESGI				DRILLING DATA										
CLIENT: Parkbridge Lifestyle Communities Inc.				Method: GM100GT										
PROJECT LOCATION: 208 Lakshore Road, Blue Mountains, ON				Diameter: 100										
DATUM: Geodetic				Date: Mar/14/2016										
BH LOCATION:				REF. NO.: 151-62850-00										
SOIL PROFILE				ENCL NO.: 3										
(m) ELEV DEPTH	DESCRIPTION		STRATA PLOT	NUMBER	TYPE	N" BLOWS 0.3 m	GROUND WATER CONDITIONS	ELEVATION	Soil Head Space Vapors		PLASTIC LIMIT W <sub>P</sub>	NATURAL MOISTURE CONTENT W	LIQUID LIMIT W <sub>L</sub>	REMARKS AND GRAIN SIZE DISTRIBUTION (%)
0.0	<b>TOPSOIL:</b> 12 cm								PID (ppm)	CGD (% LEL)				POCKET PEN (Cu) (kPa)
0.1	<b>SAND:</b> some gravel to gravelly, brown, very moist								2 4 6 8	2 4 6 8				NATURAL UNIT WT (kNm <sup>-2</sup> )
0.3	wet						▽							
1	1 SS													
1.5	<b>SAND AND GRAVEL:</b> grey, very moist to wet													
1.9	<b>WEATHERED LIMESTONE:SAND AND GRAVEL</b> , some silt to silty, trace to some clay, grey, moist to very moist			2	SS									
2.1	<b>END OF BOREHOLE:</b> Notes: 1. Sampler refusal on assumed bedrock at 2.1 mbg. 2. Wet sand encountered at 0.3 mbg.													

0-10 PPM AND 0-10% LEV 2014 151-62850-00 DRAFT BH LOGS GP SPL.GDT 2/15/17

GROUNDWATER ELEVATIONS

Measurement 1st 2nd 3rd 4th

GRAPH  
NOTES+<sup>3</sup>, X<sup>3</sup>: Numbers refer to SensitivityO  $\bullet=3\%$  Strain at Failure

# Appendix E

**LABORATORY CERTIFICATES OF ANALYSIS**



**CLIENT NAME: SPL CONSULTANTS  
51 CONSTELLATION COURT  
TORONTO, ON M9W1K4  
(416) 798-0065**

**ATTENTION TO: Tijana Medencevic**

**PROJECT: 10002290**

**AGAT WORK ORDER: 15T043438**

**SOIL ANALYSIS REVIEWED BY: Sofka Pehlyova, Senior Analyst**

**TRACE ORGANICS REVIEWED BY: Inga Kuzmina, Trace Organics Lab Manager**

**DATE REPORTED: Nov 24, 2015**

**PAGES (INCLUDING COVER): 22**

**VERSION\*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

**\*NOTES**

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



**AGAT**

Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS2	BH16 SS2	BH2 SS1	BH2 SS2	BH4 SS2	BH2 SS2 Dup
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil
		G / S	RDL	11/10/2015 7203934	11/10/2015 7203958	11/11/2015 7204064	11/11/2015 7204065	11/12/2015 7204071	11/11/2015 7204079
Antimony	µg/g	1.3	0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8
Arsenic	µg/g	18	1	6	5	4	3	4	3
Barium	µg/g	220	2	64	51	28	39	31	31
Beryllium	µg/g	2.5	0.5	0.6	0.7	<0.5	0.5	<0.5	<0.5
Boron	µg/g	36	5	15	16	8	17	14	15
Boron (Hot Water Soluble)	µg/g	NA	0.10	0.32	0.33	0.16	1.88	0.30	1.61
Cadmium	µg/g	1.2	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chromium	µg/g	70	2	16	17	12	17	16	14
Cobalt	µg/g	21	0.5	7.5	7.9	5.7	7.8	7.2	6.2
Copper	µg/g	92	1	16	21	21	15	16	13
Lead	µg/g	120	1	8	12	7	9	7	8
Molybdenum	µg/g	2	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	82	1	25	30	15	21	19	16
Selenium	µg/g	1.5	0.4	0.5	0.5	<0.4	<0.4	<0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Thallium	µg/g	1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Uranium	µg/g	2.5	0.5	1.1	0.9	0.5	0.8	0.5	0.8
Vanadium	µg/g	86	1	17	18	15	19	17	16
Zinc	µg/g	290	5	32	31	25	32	30	28
Chromium VI	µg/g	0.66	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Electrical Conductivity	mS/cm	0.57	0.005	0.188	0.170	0.172	0.308	0.150	0.317
Sodium Adsorption Ratio	NA	2.4	NA	0.289	0.082	0.428	0.941	0.289	0.728
pH, 2:1 CaCl <sub>2</sub> Extraction	pH Units	NA	NA	8.46	8.02	7.83	7.95	7.90	7.98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203934-7204079 EC & SAR were determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl<sub>2</sub> extract prepared at 2:1 ratio.

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PROJECT: 10002290

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - OC Pesticides (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS1	BH2 SS1
		SAMPLE TYPE:		Soil	Soil
		G / S	RDL	11/10/2015	11/11/2015
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005	<0.005	<0.005
Heptachlor	µg/g	0.05	0.005	<0.005	<0.005
Aldrin	µg/g	0.05	0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.05	0.005	<0.005	<0.005
Endosulfan	µg/g	0.04	0.005	<0.005	<0.005
Chlordane	µg/g	0.05	0.007	<0.007	<0.007
DDE	µg/g	0.05	0.007	<0.007	<0.007
DDD	µg/g	0.05	0.007	<0.007	<0.007
DDT	µg/g	1.4	0.007	<0.007	<0.007
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005
Endrin	µg/g	0.04	0.005	<0.005	<0.005
Methoxychlor	µg/g	0.05	0.005	<0.005	<0.005
Hexachlorobenzene	µg/g	0.01	0.005	<0.005	<0.005
Hexachlorobutadiene	µg/g	0.01	0.01	<0.01	<0.01
Hexachloroethane	µg/g	0.01	0.01	<0.01	<0.01
Moisture Content	%		0.1	15.8	11.4
Surrogate	Unit	Acceptable Limits			
TCMX	%	50-140		58	60
Decachlorobiphenyl	%	60-130		60	68

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203935-7204064 Results are based on the dry weight of the soil.

Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and pp'DDD and DDE applies to the total of op'DDE and pp'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.

Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - OC Pesticides + PCBs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

SAMPLE DESCRIPTION: BH16 SS1			
Parameter	Unit	SAMPLE TYPE: Soil	DATE SAMPLED: 11/10/2015
	G / S	RDL	7203954
Gamma-Hexachlorocyclohexane	µg/g	0.01	0.005
Heptachlor	µg/g	0.05	0.005
Aldrin	µg/g	0.05	0.005
Heptachlor Epoxide	µg/g	0.05	<0.005
Endosulfan	µg/g	0.04	0.005
Chlordane	µg/g	0.05	0.007
DDD	µg/g	0.05	0.007
DDE	µg/g	0.05	0.007
DDT	µg/g	1.4	0.007
Dieldrin	µg/g	0.05	<0.005
Endrin	µg/g	0.04	0.005
Methoxychlor	µg/g	0.05	<0.005
Hexachlorobenzene	µg/g	0.01	0.005
Hexachlorobutadiene	µg/g	0.01	<0.01
Hexachloroethane	µg/g	0.01	<0.01
Aroclor 1242	µg/g	0.10	<0.10
Aroclor 1248	µg/g	0.10	<0.10
Aroclor 1254	µg/g	0.10	<0.10
Aroclor 1260	µg/g	0.10	<0.10
Polychlorinated Biphenyls	µg/g	0.3	0.10
Moisture Content	%	0.1	15.2
Surrogate	Unit	Acceptable Limits	
TCMX	%	50-140	62
Decachlorobiphenyl	%	60-140	83

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203954 Results are based on the dry weight of the soil.  
 Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and pp'DDD and DDE applies to the total of op'DDE and pp'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.  
 Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

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SAMPLING SITE: County Road 19 &amp; Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS3	BH16 SS2	BH2 SS3	BH4 SS3
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		G / S	RDL	11/10/2015	11/10/2015	11/11/2015	11/12/2015
Naphthalene	µg/g	0.09	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05	<0.05	<0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05	<0.05	<0.05	<0.05
Fluorene	µg/g	0.12	0.05	<0.05	<0.05	<0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05	<0.05	<0.05	<0.05
Anthracene	µg/g	0.16	0.05	<0.05	<0.05	<0.05	<0.05
Fluoranthene	µg/g	0.56	0.05	<0.05	<0.05	<0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05	<0.05	<0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05	<0.05	<0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05	<0.05	<0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05	<0.05	<0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05	<0.05	<0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05	<0.05	<0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	3.5	9.8	6.1	9.4
Surrogate	Unit	Acceptable Limits					
Chrysene-d12	%	50-140	101	88	69	82	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203936-7204072 Results are based on the dry weight of the soil.

Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&amp;(j)Fluoranthene isomers because the isomers co-elute on the GC column.

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS5	BH16 SS3	BH2 SS14	BH4 SS5
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		G / S	RDL	11/10/2015	11/10/2015	11/11/2015	11/12/2015
F1 (C6 to C10)	µg/g		5	<5	7	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	7	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	19	<10	18
F3 (C16 to C34)	µg/g	240	50	<50	70	<50	58
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA
Moisture Content	%		0.1	13.3	7.5	9.8	6.1
Surrogate	Unit	Acceptable Limits					
Terphenyl	%	60-140		69	74	90	66

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203939-7204073 Results are based on sample dry weight.

The C6-C10 fraction is calculated using toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		TP1 GS1
		G / S	RDL	SAMPLE TYPE:
				Soil
Benzene	µg/g	0.02	0.02	<0.02
Toluene	µg/g	0.2	0.08	<0.08
Ethylbenzene	µg/g	0.05	0.05	<0.05
Xylene Mixture	µg/g	0.05	0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5
F2 (C10 to C16)	µg/g	10	10	<10
F3 (C16 to C34)	µg/g	240	50	<50
F4 (C34 to C50)	µg/g	120	50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA
Moisture Content	%		0.1	18.3
<b>Surrogate</b>	<b>Unit</b>	<b>Acceptable Limits</b>		
Terphenyl	%	60-140		82

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

**7204080**  
 Results are based on sample dry weight.  
 The C6-C10 fraction is calculated using Toluene response factor.  
 The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
 Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
 The chromatogram has returned to baseline by the retention time of nC50.  
 Total C6 - C50 results are corrected for BTEX contributions.  
 This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
 nC6 and nC10 response factors are within 30% of Toluene response factor.  
 nC10, nC16 and nC34 response factors are within 10% of their average.  
 C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
 Linearity is within 15%.  
 Extraction and holding times were met for this sample.  
 Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.  
 Quality Control Data is available upon request.

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS6	BH2 SS15	BH4 SS6	BH9 SS6 Dup
		SAMPLE TYPE:	G / S	Soil	Soil	Soil	Soil
				RDL	7203945	7204069	7204075
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g	0.05	<0.05	<0.05	<0.05	<0.05	<0.05

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS6	BH2 SS15	BH4 SS6	BH9 SS6 Dup
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		G / S	RDL	11/10/2015	11/11/2015	11/12/2015	11/10/2015
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Moisture Content	%		0.1	14.3	13.7	5.6	13.3
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140		98	98	101	109
4-Bromofluorobenzene	% Recovery	50-140		98	98	99	98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203945-7204077 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS5	BH16 SS3	BH2 SS14	BH4 SS5
		SAMPLE TYPE:		Soil	Soil	Soil	Soil
		G / S	RDL	11/10/2015 7203939	11/10/2015 7204006	11/11/2015 7204067	11/12/2015 7204073
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g	0.05	<0.05	0.06	<0.05	<0.05	<0.05

Certified By:



# Certificate of Analysis

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
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<http://www.agatlabs.com>

CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-11-17

DATE REPORTED: 2015-11-24

Parameter	Unit	SAMPLE DESCRIPTION:		BH9 SS5	BH16 SS3	BH2 SS14	BH4 SS5
		SAMPLE TYPE:	G / S	Soil	Soil	Soil	Soil
				RDL	7203939	7204006	7204067
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<b>0.06</b>	<0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05	<b>0.33</b>	<0.05	<0.05
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140	98	101	98	101	
4-Bromofluorobenzene	% Recovery	50-140	95	100	99	98	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7203939-7204073 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Certified By:



Laboratories

CLIENT NAME: SPL CONSULTANTS

## Guideline Violation

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

5835 COOPERS AVENUE  
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ATTENTION TO: Tijana Medencevic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	GUIDEVALUE	RESULT
7204006	BH16 SS3	ON T1 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)	F2 (C10 to C16)	10	19
7204006	BH16 SS3	ON T1 S RPI/ICC	O. Reg. 153(511) - VOCs (Soil)	Xylene Mixture	0.05	0.06
7204006	BH16 SS3	ON T1 S RPI/ICC	O. Reg. 153(511) - VOCs (Soil)	n-Hexane	0.05	0.33
7204073	BH4 SS5	ON T1 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)	F2 (C10 to C16)	10	18



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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

SAMPLED BY: Scott Watson

### Soil Analysis

RPT Date: Nov 24, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper			Lower		Lower	Upper	

#### O. Reg. 153(511) - Metals & Inorganics (Soil)

Antimony	7203448	<0.8	<0.8	NA	< 0.8	88%	70%	130%	109%	80%	120%	113%	70%	130%
Arsenic	7203448	3	3	NA	< 1	111%	70%	130%	99%	80%	120%	101%	70%	130%
Barium	7203448	91	90	1.1%	< 2	102%	70%	130%	102%	80%	120%	104%	70%	130%
Beryllium	7203448	0.6	0.6	NA	< 0.5	101%	70%	130%	95%	80%	120%	96%	70%	130%
Boron	7203448	5	5	NA	< 5	75%	70%	130%	98%	80%	120%	90%	70%	130%
Boron (Hot Water Soluble)	7204261	0.14	0.13	NA	< 0.10	119%	60%	140%	101%	70%	130%	100%	60%	140%
Cadmium	7203448	<0.5	<0.5	NA	< 0.5	97%	70%	130%	96%	80%	120%	95%	70%	130%
Chromium	7203448	20	20	0.0%	< 2	92%	70%	130%	102%	80%	120%	104%	70%	130%
Cobalt	7203448	7.6	7.5	1.3%	< 0.5	94%	70%	130%	93%	80%	120%	93%	70%	130%
Copper	7203448	14	14	0.0%	< 1	94%	70%	130%	99%	80%	120%	96%	70%	130%
Lead	7203448	16	15	6.5%	< 1	103%	70%	130%	99%	80%	120%	97%	70%	130%
Molybdenum	7203448	<0.5	<0.5	NA	< 0.5	97%	70%	130%	95%	80%	120%	100%	70%	130%
Nickel	7203448	15	15	0.0%	< 1	95%	70%	130%	96%	80%	120%	92%	70%	130%
Selenium	7203448	0.5	<0.4	NA	< 0.4	95%	70%	130%	97%	80%	120%	100%	70%	130%
Silver	7203448	<0.2	<0.2	NA	< 0.2	98%	70%	130%	102%	80%	120%	104%	70%	130%
Thallium	7203448	<0.4	<0.4	NA	< 0.4	104%	70%	130%	111%	80%	120%	109%	70%	130%
Uranium	7203448	0.6	0.5	NA	< 0.5	100%	70%	130%	99%	80%	120%	101%	70%	130%
Vanadium	7203448	28	28	0.0%	< 1	97%	70%	130%	99%	80%	120%	98%	70%	130%
Zinc	7203448	52	51	1.9%	< 5	105%	70%	130%	102%	80%	120%	99%	70%	130%
Chromium VI	7205168	<0.2	<0.2	NA	< 0.2	98%	70%	130%	98%	80%	120%	104%	70%	130%
Cyanide	7204236	<0.040	<0.040	NA	< 0.040	104%	70%	130%	102%	80%	120%	101%	70%	130%
Mercury	7203448	<0.10	<0.10	NA	< 0.10	98%	70%	130%	85%	80%	120%	88%	70%	130%
Electrical Conductivity	7205168	0.183	0.176	3.9%	< 0.005	98%	90%	110%	NA			NA		
Sodium Adsorption Ratio	7204234	8.07	8.32	3.1%	NA	NA			NA			NA		
pH, 2:1 CaCl <sub>2</sub> Extraction	7204064	7.83	7.77	0.8%	NA	101%	80%	120%	NA			NA		

Comments: NA signifies Not Applicable.

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

**Certified By:**



**AGAT**

Laboratories

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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

SAMPLED BY: Scott Watson

### Trace Organics Analysis

RPT Date: Nov 24, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper			Lower		Lower	Upper	

#### O. Reg. 153(511) - OC Pesticides (Soil)

Gamma-Hexachlorocyclohexane	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	94%	50%	140%	96%	50%	140%	74%	50%	140%
Heptachlor	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	99%	50%	140%	75%	50%	140%	73%	50%	140%
Aldrin	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	74%	50%	140%	70%	50%	140%
Heptachlor Epoxide	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	79%	50%	140%	74%	50%	140%	68%	50%	140%
Endosulfan	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	107%	50%	140%	82%	50%	140%	69%	50%	140%
Chlordane	7204064	7204064	< 0.007	< 0.007	NA	< 0.007	130%	50%	140%	98%	50%	140%	54%	50%	140%
DDE	7204064	7204064	< 0.007	< 0.007	NA	< 0.007	117%	50%	140%	77%	50%	140%	70%	50%	140%
DDD	7204064	7204064	< 0.007	< 0.007	NA	< 0.007	105%	50%	140%	62%	50%	140%	95%	50%	140%
DDT	7204064	7204064	< 0.007	< 0.007	NA	< 0.007	116%	50%	140%	79%	50%	140%	69%	50%	140%
Dieldrin	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	91%	50%	140%	61%	50%	140%	66%	50%	140%
Endrin	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	90%	50%	140%	54%	50%	140%	70%	50%	140%
Methoxychlor	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	118%	50%	140%	72%	50%	140%	126%	50%	140%
Hexachlorobenzene	7204064	7204064	< 0.005	< 0.005	NA	< 0.005	92%	50%	140%	76%	50%	140%	84%	50%	140%
Hexachlorobutadiene	7204064	7204064	< 0.01	< 0.01	NA	< 0.01	93%	50%	140%	74%	50%	140%	70%	50%	140%
Hexachloroethane	7204064	7204064	< 0.01	< 0.01	NA	< 0.01	93%	50%	140%	54%	50%	140%	61%	50%	140%

#### O. Reg. 153(511) - PAHs (Soil)

Naphthalene	7207167	< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	73%	50%	140%	67%	50%	140%
Acenaphthylene	7207167	< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	82%	50%	140%	74%	50%	140%
Acenaphthene	7207167	< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	83%	50%	140%	76%	50%	140%
Fluorene	7207167	< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	83%	50%	140%	75%	50%	140%
Phenanthrene	7207167	< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	86%	50%	140%	76%	50%	140%
Anthracene	7207167	< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	79%	50%	140%	68%	50%	140%
Fluoranthene	7207167	< 0.05	< 0.05	NA	< 0.05	101%	50%	140%	89%	50%	140%	78%	50%	140%
Pyrene	7207167	< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	90%	50%	140%	77%	50%	140%
Benz(a)anthracene	7207167	< 0.05	< 0.05	NA	< 0.05	90%	50%	140%	85%	50%	140%	69%	50%	140%
Chrysene	7207167	< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	93%	50%	140%	78%	50%	140%
Benzo(b)fluoranthene	7207167	< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	89%	50%	140%	80%	50%	140%
Benzo(k)fluoranthene	7207167	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	105%	50%	140%	98%	50%	140%
Benzo(a)pyrene	7207167	< 0.05	< 0.05	NA	< 0.05	111%	50%	140%	96%	50%	140%	87%	50%	140%
Indeno(1,2,3-cd)pyrene	7207167	< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	74%	50%	140%	65%	50%	140%
Dibenz(a,h)anthracene	7207167	< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	76%	50%	140%	71%	50%	140%
Benzo(g,h,i)perylene	7207167	< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	73%	50%	140%	62%	50%	140%
2-and 1-methyl Naphthalene	7207167	< 0.05	< 0.05	NA	< 0.05	112%	50%	140%	82%	50%	140%	75%	50%	140%

#### O. Reg. 153(511) - VOCs (Soil)

Dichlorodifluoromethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	84%	50%	140%	114%	50%	140%
Vinyl Chloride	7204006	7204006	< 0.02	< 0.02	NA	< 0.02	111%	50%	140%	88%	50%	140%	105%	50%	140%
Bromomethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	82%	50%	140%	113%	50%	140%
Trichlorofluoromethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	84%	50%	140%	106%	50%	140%



## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

SAMPLED BY: Scott Watson

### Trace Organics Analysis (Continued)

RPT Date: Nov 24, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Acetone	7204006	7204006	< 0.50	< 0.50	NA	< 0.50	113%	50%	140%	128%	50%	140%	90%	50%	140%	
1,1-Dichloroethylene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	102%	60%	130%	103%	50%	140%	
Methylene Chloride	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	103%	60%	130%	120%	50%	140%	
Trans- 1,2-Dichloroethylene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	112%	60%	130%	111%	50%	140%	
Methyl tert-butyl Ether	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	82%	60%	130%	116%	50%	140%	
1,1-Dichloroethane	7204006	7204006	< 0.02	< 0.02	NA	< 0.02	93%	50%	140%	83%	60%	130%	107%	50%	140%	
Methyl Ethyl Ketone	7204006	7204006	< 0.50	< 0.50	NA	< 0.50	94%	50%	140%	84%	50%	140%	82%	50%	140%	
Cis- 1,2-Dichloroethylene	7204006	7204006	< 0.02	< 0.02	NA	< 0.02	90%	50%	140%	90%	60%	130%	109%	50%	140%	
Chloroform	7204006	7204006	< 0.04	< 0.04	NA	< 0.04	101%	50%	140%	110%	60%	130%	109%	50%	140%	
1,2-Dichloroethane	7204006	7204006	< 0.03	< 0.03	NA	< 0.03	106%	50%	140%	97%	60%	130%	100%	50%	140%	
1,1,1-Trichloroethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	85%	50%	140%	88%	60%	130%	96%	50%	140%	
Carbon Tetrachloride	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	86%	60%	130%	91%	50%	140%	
Benzene	7204006	7204006	< 0.02	< 0.02	NA	< 0.02	102%	50%	140%	91%	60%	130%	115%	50%	140%	
1,2-Dichloropropane	7204006	7204006	< 0.03	< 0.03	NA	< 0.03	96%	50%	140%	86%	60%	130%	104%	50%	140%	
Trichloroethylene	7204006	7204006	< 0.03	< 0.03	NA	< 0.03	97%	50%	140%	91%	60%	130%	111%	50%	140%	
Bromodichloromethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	83%	60%	130%	88%	50%	140%	
Methyl Isobutyl Ketone	7204006	7204006	< 0.50	< 0.50	NA	< 0.50	91%	50%	140%	81%	50%	140%	89%	50%	140%	
1,1,2-Trichloroethane	7204006	7204006	< 0.04	< 0.04	NA	< 0.04	109%	50%	140%	91%	60%	130%	105%	50%	140%	
Toluene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	90%	60%	130%	113%	50%	140%	
Dibromochloromethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	92%	50%	140%	75%	60%	130%	82%	50%	140%	
Ethylene Dibromide	7204006	7204006	< 0.04	< 0.04	NA	< 0.04	97%	50%	140%	85%	60%	130%	99%	50%	140%	
Tetrachloroethylene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	96%	50%	140%	86%	60%	130%	104%	50%	140%	
1,1,2-Tetrachloroethane	7204006	7204006	< 0.04	< 0.04	NA	< 0.04	113%	50%	140%	81%	60%	130%	95%	50%	140%	
Chlorobenzene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	90%	60%	130%	109%	50%	140%	
Ethylbenzene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	86%	60%	130%	105%	50%	140%	
m & p-Xylene	7204006	7204006	0.06	0.06	NA	< 0.05	105%	50%	140%	90%	60%	130%	107%	50%	140%	
Bromoform	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	73%	60%	130%	75%	50%	140%	
Styrene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	84%	60%	130%	101%	50%	140%	
1,1,2,2-Tetrachloroethane	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	92%	60%	130%	95%	50%	140%	
o-Xylene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	110%	50%	140%	93%	60%	130%	107%	50%	140%	
1,3-Dichlorobenzene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	84%	60%	130%	99%	50%	140%	
1,4-Dichlorobenzene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	92%	60%	130%	102%	50%	140%	
1,2-Dichlorobenzene	7204006	7204006	< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	85%	60%	130%	98%	50%	140%	
1,3-Dichloropropene	7204006	7204006	< 0.04	< 0.04	NA	< 0.04	110%	50%	140%	84%	60%	130%	101%	50%	140%	
n-Hexane	7204006	7204006	0.33	0.31	6.3%	< 0.05	98%	50%	140%	78%	60%	130%	88%	50%	140%	
<b>O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)</b>																
F1 (C6 to C10)	7204365		< 5	< 5	NA	< 5	105%	60%	130%	97%	85%	115%	85%	70%	130%	
F2 (C10 to C16)	7204080	7204080	< 10	< 10	NA	< 10	96%	60%	130%	98%	80%	120%	82%	70%	130%	
F3 (C16 to C34)	7204080	7204080	< 50	< 50	NA	< 50	96%	60%	130%	90%	80%	120%	90%	70%	130%	



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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

SAMPLED BY: Scott Watson

### Trace Organics Analysis (Continued)

RPT Date: Nov 24, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
							Lower	Upper			Lower	Upper		Lower	Upper
F4 (C34 to C50)	7204080	7204080	< 50	< 50	NA	< 50	82%	60%	130%	88%	80%	120%	90%	70%	130%

#### O. Reg. 153(511) - OC Pesticides + PCBs (Soil)

Aroclor 1242	7204064	7204064	< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1248	7204064	7204064	< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1254	7204064	7204064	< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Aroclor 1260	7204064	7204064	< 0.10	< 0.10	NA	< 0.10	NA	60%	140%	NA	60%	140%	NA	60%	140%
Polychlorinated Biphenyls	7204064	7204064	< 0.10	< 0.10	NA	< 0.10	78%	60%	140%	94%	60%	140%	85%	60%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



**AGAT**

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## Method Summary

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043438

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Soil Analysis</b>			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010B	ICP/OES
pH, 2:1 CaCl <sub>2</sub> Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER



## Method Summary

CLIENT NAME: SPL CONSULTANTS

PROJECT: 10002290

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

AGAT WORK ORDER: 15T043438

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Hexachloroethane	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541,3620 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541,3620 & 8081	GC/ECD
Moisture Content		MOE E3139	BALANCE
Gamma-Hexachlorocyclohexane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Heptachlor	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Aldrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Heptachlor Epoxide	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Endosulfan	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Chlordane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
DDD	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
DDE	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
DDT	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Dieldrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Endrin	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Methoxychlor	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Hexachlorobenzene	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Hexachlorobutadiene	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Hexachloroethane	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Aroclor 1242	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD
Aroclor 1248	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD
Aroclor 1254	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD
Aroclor 1260	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD
Polychlorinated Biphenyls	ORG-91-5113	EPA SW-846 3541, 3620 & 8082	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3541, 3620,8081	GC/ECD
Decachlorobiphenyl	ORG-91-5113	EPA SW-846 3541, 3620,8081	GC/ECD
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS



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## Method Summary

CLIENT NAME: SPL CONSULTANTS

PROJECT: 10002290

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

AGAT WORK ORDER: 15T043438

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	GRAVIMETRIC ANALYSIS
Moisture Content	VOL-91-5009	CCME Tier 1 Method, SW846 5035,8015	BALANCE
Terphenyl	VOL-91-5009		GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS



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## Method Summary

CLIENT NAME: SPL CONSULTANTS

PROJECT: 10002290

SAMPLING SITE: County Road 19 & Lakeshore, Blue Mountain

AGAT WORK ORDER: 15T043438

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Moisture Content	VOL-91-5002	MOE E3139	BALANCE



**CLIENT NAME: SPL CONSULTANTS  
51 CONSTELLATION COURT  
TORONTO, ON M9W1K4  
(416) 798-0065**

**ATTENTION TO: Tijana Medencevic**

**PROJECT: 10002290-220**

**AGAT WORK ORDER: 15T049614**

**TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor**

**DATE REPORTED: Dec 08, 2015**

**PAGES (INCLUDING COVER): 18**

**VERSION\*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

**\*NOTES**

**All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.**



Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 15T049614

PROJECT: 10002290-220

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: 209521 Highway 26

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP1 SS1	TP1 SS2	TP2 SS1	TP2 SS2	TP3 SS1	TP3 SS2	TP4 SS1	TP4 SS2								
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil								
		G / S	RDL	12/2/2015	7259163	12/2/2015	7259167	12/2/2015	7259170	12/2/2015	7259172	12/2/2015	7259174	12/2/2015	7259176	12/2/2015	7259179	12/2/2015	7259184
F1 (C6 to C10)	µg/g		5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5		
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	14	<10	<10	<10	<10	<10	
F3 (C16 to C34)	µg/g	240	50	72	<50	<50	<50	<50	<50	<50	<50	130	120	53					
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA													
Moisture Content	%		0.1	11.3	10.7	12.6	20.0	7.1	10.2	12.4	16.1								
Surrogate	Unit	Acceptable Limits																	
Terphenyl	%	60-140		88	85	73	109	100	87	83	120								
Parameter		SAMPLE DESCRIPTION:		TP4 SS3		TP4 SS4													
Parameter		SAMPLE TYPE:		Soil		Soil													
Parameter		G / S		RDL		12/2/2015		7259191		12/2/2015		7259209							
F1 (C6 to C10)	µg/g		5	<5		<5													
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5		<5													
F2 (C10 to C16)	µg/g	10	10	20		<10													
F3 (C16 to C34)	µg/g	240	50	240		<50													
F4 (C34 to C50)	µg/g	120	50	53		<50													
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA		NA													
Moisture Content	%		0.1	25.7		13.3													
Surrogate	Unit	Acceptable Limits																	
Terphenyl	%	60-140		98	112														

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SAMPLING SITE: 209521 Highway 26

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AGAT WORK ORDER: 15T049614  
PROJECT: 10002290-220

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ATTENTION TO: Tijana Medencevic  
SAMPLED BY: Scott Watson

### O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7259163-7259209 Results are based on sample dry weight.  
The C6-C10 fraction is calculated using toluene response factor.  
The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.  
Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.  
The chromatogram has returned to baseline by the retention time of nC50.  
Total C6 - C50 results are corrected for BTEX contributions.  
This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.  
nC6 and nC10 response factors are within 30% of Toluene response factor.  
nC10, nC16 and nC34 response factors are within 10% of their average.  
C50 response factor is within 70% of nC10 + nC16 + nC34 average.  
Linearity is within 15%.  
Extraction and holding times were met for this sample.  
Fractions 1-4 are quantified without the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: 209521 Highway 26

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP4 SS3 Dup	TP5 SS1	TP5 SS2	TP6 SS1	TP6 SS2	TP6 SS3	TP6 SS4	TP7 SS1
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		G / S	RDL	7259193	7259211	7259214	7259216	7259219	7259221	7259223	7259225
Benzene	µg/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g	5	<5	<5	<5	<5	<5	<5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5	<5	<5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10	<10	<10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA	NA	NA	NA	NA	NA
Moisture Content	%	0.1	13.7	14.2	13.4	10.9	12.8	13.4	34.0	12.6	
Surrogate	Unit	Acceptable Limits									
Terphenyl	%	60-140	104	85	96	91	98	118	130	130	

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SAMPLING SITE: 209521 Highway 26

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP7 SS2	TP8 SS1	TP8 SS2
		SAMPLE TYPE:		Soil	Soil	Soil
		G / S	RDL	12/2/2015	12/2/2015	12/2/2015
Benzene	µg/g	0.02	0.02	<0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.08	<0.08	<0.08	<0.08
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05	<0.05
Xylene Mixture	µg/g	0.05	0.05	<0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA	NA
Moisture Content	%		0.1	16.5	15.9	16.0
<b>Surrogate</b>	<b>Unit</b>	<b>Acceptable Limits</b>				
Terphenyl	%	60-140	120	130	89	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7259193-7259231 Results are based on sample dry weight.

The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Quality Control Data is available upon request.

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ATTENTION TO: Tijana Medencevic  
SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION: TP1 SS1 Dup		<0.05
		SAMPLE TYPE:	DATE SAMPLED:	
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05
m & p-Xylene	ug/g	0.05	0.05	<0.05

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ATTENTION TO: Tijana Medencevic  
SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

SAMPLE DESCRIPTION: TP1 SS1 Dup				
Parameter	Unit	SAMPLE TYPE:	Soil	
		DATE SAMPLED:	12/2/2015	
		G / S	RDL	7259165
Bromoform	ug/g	0.05	0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05
Moisture Content	%		0.1	18.6
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140	93	
4-Bromofluorobenzene	% Recovery	50-140	101	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7259165 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

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## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP1 SS1	TP1 SS2	TP2 SS1	TP2 SS2	TP3 SS1	TP3 SS2	TP4 SS1	TP4 SS2
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
		G / S	RDL	DATE SAMPLED: 12/2/2015	7259163	7259167	7259170	7259172	7259174	7259176	7259179
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
m & p-Xylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Certified By:



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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: 209521 Highway 26

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AGAT WORK ORDER: 15T049614

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP1 SS1	TP1 SS2	TP2 SS1	TP2 SS2	TP3 SS1	TP3 SS2	TP4 SS1	TP4 SS2							
		SAMPLE TYPE:		Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil							
		G / S	RDL	12/2/2015	7259163	12/2/2015	7259167	12/2/2015	7259170	12/2/2015	7259172	12/2/2015	7259174	12/2/2015	7259176	12/2/2015	7259179	12/2/2015
Bromoform	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	
Styrene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
o-Xylene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Surrogate	Unit	Acceptable Limits																
Toluene-d8	% Recovery	50-140		115	104	93	96	89	109	97	93							
4-Bromofluorobenzene	% Recovery	50-140		95	97	98	94	106	104	91	110							

Certified By: 



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SAMPLING SITE: 209521 Highway 26

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ATTENTION TO: Tijana Medencevic  
SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

Parameter	Unit	SAMPLE DESCRIPTION:		TP4 SS3	TP4 SS4
		SAMPLE TYPE:		Soil	Soil
		G / S	RDL	12/2/2015	12/2/2015
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05
m & p-Xylene	ug/g	0.05	<0.05	<0.05	<0.05

Certified By:



CLIENT NAME: SPL CONSULTANTS  
SAMPLING SITE: 209521 Highway 26

# Certificate of Analysis

AGAT WORK ORDER: 15T049614  
PROJECT: 10002290-220

5835 COOPERS AVENUE  
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ATTENTION TO: Tijana Medencevic  
SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2015-12-04

DATE REPORTED: 2015-12-08

		SAMPLE DESCRIPTION:	TP4 SS3	TP4 SS4
Parameter	Unit	SAMPLE TYPE: G / S	Soil	Soil
		DATE SAMPLED:	12/2/2015	12/2/2015
		G / S	RDL	7259191
Bromoform	ug/g	0.05	0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05
o-Xylene	ug/g		0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05
Surrogate	Unit	Acceptable Limits		
Toluene-d8	% Recovery	50-140	96	97
4-Bromofluorobenzene	% Recovery	50-140	95	110

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7259163-7259209 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Certified By:

**AGAT**Labs  
Laboratories

CLIENT NAME: SPL CONSULTANTS

## Guideline Violation

AGAT WORK ORDER: 15T049614

PROJECT: 10002290-220

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ATTENTION TO: Tijana Medencevic

SAMPLEID	SAMPLE TITLE	GUIDELINE	ANALYSIS PACKAGE	PARAMETER	GUIDEVALUE	RESULT
7259176	TP3 SS2	ON T1 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)	F2 (C10 to C16)	10	14
7259191	TP4 SS3	ON T1 S RPI/ICC	O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)	F2 (C10 to C16)	10	20



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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T049614

PROJECT: 10002290-220

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 209521 Highway 26

SAMPLED BY: Scott Watson

### Trace Organics Analysis

RPT Date: Dec 08, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper			Lower		Lower	Upper	
O. Reg. 153(511) - VOCs (Soil)																
Dichlorodifluoromethane	7254377		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	84%	50%	140%	93%	50%	140%	
Vinyl Chloride	7254377		< 0.02	< 0.02	NA	< 0.02	114%	50%	140%	108%	50%	140%	97%	50%	140%	
Bromomethane	7254377		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	97%	50%	140%	81%	50%	140%	
Trichlorofluoromethane	7254377		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	85%	50%	140%	88%	50%	140%	
Acetone	7254377		< 0.50	< 0.50	NA	< 0.50	119%	50%	140%	120%	50%	140%	118%	50%	140%	
1,1-Dichloroethylene	7254377		< 0.05	< 0.05	NA	< 0.05	81%	50%	140%	90%	60%	130%	80%	50%	140%	
Methylene Chloride	7254377		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	116%	60%	130%	96%	50%	140%	
Trans- 1,2-Dichloroethylene	7254377		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	75%	60%	130%	103%	50%	140%	
Methyl tert-butyl Ether	7254377		< 0.05	< 0.05	NA	< 0.05	95%	50%	140%	91%	60%	130%	112%	50%	140%	
1,1-Dichloroethane	7254377		< 0.02	< 0.02	NA	< 0.02	128%	50%	140%	89%	60%	130%	117%	50%	140%	
Methyl Ethyl Ketone	7254377		< 0.50	< 0.50	NA	< 0.50	89%	50%	140%	105%	50%	140%	94%	50%	140%	
Cis- 1,2-Dichloroethylene	7254377		< 0.02	< 0.02	NA	< 0.02	80%	50%	140%	88%	60%	130%	73%	50%	140%	
Chloroform	7254377		< 0.04	< 0.04	NA	< 0.04	82%	50%	140%	73%	60%	130%	70%	50%	140%	
1,2-Dichloroethane	7254377		< 0.03	< 0.03	NA	< 0.03	76%	50%	140%	74%	60%	130%	71%	50%	140%	
1,1,1-Trichloroethane	7254377		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	78%	60%	130%	82%	50%	140%	
Carbon Tetrachloride	7254377		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	87%	60%	130%	74%	50%	140%	
Benzene	7254377		< 0.02	< 0.02	NA	< 0.02	106%	50%	140%	91%	60%	130%	99%	50%	140%	
1,2-Dichloropropane	7254377		< 0.03	< 0.03	NA	< 0.03	100%	50%	140%	82%	60%	130%	85%	50%	140%	
Trichloroethylene	7254377		< 0.03	< 0.03	NA	< 0.03	85%	50%	140%	70%	60%	130%	73%	50%	140%	
Bromodichloromethane	7254377		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	81%	60%	130%	75%	50%	140%	
Methyl Isobutyl Ketone	7254377		< 0.50	< 0.50	NA	< 0.50	106%	50%	140%	101%	50%	140%	117%	50%	140%	
1,1,2-Trichloroethane	7254377		< 0.04	< 0.04	NA	< 0.04	105%	50%	140%	91%	60%	130%	101%	50%	140%	
Toluene	7254377		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	81%	60%	130%	87%	50%	140%	
Dibromochloromethane	7254377		< 0.05	< 0.05	NA	< 0.05	104%	50%	140%	96%	60%	130%	78%	50%	140%	
Ethylene Dibromide	7254377		< 0.04	< 0.04	NA	< 0.04	105%	50%	140%	91%	60%	130%	92%	50%	140%	
Tetrachloroethylene	7254377		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	76%	60%	130%	79%	50%	140%	
1,1,1,2-Tetrachloroethane	7254377		< 0.04	< 0.04	NA	< 0.04	116%	50%	140%	89%	60%	130%	80%	50%	140%	
Chlorobenzene	7254377		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	81%	60%	130%	85%	50%	140%	
Ethylbenzene	7254377		< 0.05	< 0.05	NA	< 0.05	82%	50%	140%	71%	60%	130%	78%	50%	140%	
m & p-Xylene	7254377		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	79%	60%	130%	83%	50%	140%	
Bromoform	7254377		< 0.05	< 0.05	NA	< 0.05	119%	50%	140%	105%	60%	130%	79%	50%	140%	
Styrene	7254377		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	71%	60%	130%	74%	50%	140%	
1,1,2,2-Tetrachloroethane	7254377		< 0.05	< 0.05	NA	< 0.05	122%	50%	140%	108%	60%	130%	111%	50%	140%	
o-Xylene	7254377		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	79%	60%	130%	86%	50%	140%	
1,3-Dichlorobenzene	7254377		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	78%	60%	130%	78%	50%	140%	
1,4-Dichlorobenzene	7254377		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	86%	60%	130%	87%	50%	140%	
1,2-Dichlorobenzene	7254377		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	80%	60%	130%	80%	50%	140%	
1,3-Dichloropropene	7254377		< 0.04	< 0.04	NA	< 0.04	111%	50%	140%	92%	60%	130%	75%	50%	140%	
n-Hexane	7254377		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	106%	60%	130%	126%	50%	140%	



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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T049614

PROJECT: 10002290-220

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 209521 Highway 26

SAMPLED BY: Scott Watson

### Trace Organics Analysis (Continued)

RPT Date: Dec 08, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
								Lower	Upper		Lower	Upper		Lower	Upper

#### O. Reg. 153(511) - PHCs F1 - F4 (-BTEX) (Soil)

F1 (C6 to C10)	7259231 7259231	< 5	< 5	NA	< 5	87%	60%	130%	85%	85%	115%	80%	70%	130%
F2 (C10 to C16)	7259184 7259184	< 10	< 10	NA	< 10	100%	60%	130%	102%	80%	120%	80%	70%	130%
F3 (C16 to C34)	7259184 7259184	53	50	NA	< 50	98%	60%	130%	114%	80%	120%	108%	70%	130%
F4 (C34 to C50)	7259184 7259184	< 50	< 50	NA	< 50	86%	60%	130%	109%	80%	120%	75%	70%	130%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable(NA).

Certified By:



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## Method Summary

CLIENT NAME: SPL CONSULTANTS

PROJECT: 10002290-220

SAMPLING SITE: 209521 Highway 26

AGAT WORK ORDER: 15T049614

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method, SW846 5035	P & T GC / FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	GRAVIMETRIC ANALYSIS
Moisture Content	VOL-91-5009	CCME Tier 1 Method, SW846 5035,8015	BALANCE
Terphenyl	VOL-91-5009		GC/FID
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS

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## Method Summary

**CLIENT NAME:** SPL CONSULTANTS**PROJECT:** 10002290-220**SAMPLING SITE:** 209521 Highway 26**AGAT WORK ORDER:** 15T049614**ATTENTION TO:** Tijana Medencevic**SAMPLED BY:** Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Moisture Content	VOL-91-5002	MOE E3139	BALANCE



**CLIENT NAME: SPL CONSULTANTS  
51 CONSTELLATION COURT  
TORONTO, ON M9W1K4  
(416) 798-0065**

**ATTENTION TO: Tijana Medencevic**

**PROJECT: 10002290**

**AGAT WORK ORDER: 15T043707**

**TRACE ORGANICS REVIEWED BY: Inga Kuzmina, Trace Organics Lab Manager**

**WATER ANALYSIS REVIEWED BY: Elizabeth Polakowska, MSc (Animal Sci), PhD (Agri Sci), Inorganic Lab Supervisor**

**DATE REPORTED: Nov 25, 2015**

**PAGES (INCLUDING COVER): 15**

**VERSION\*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

**\*NOTES**

**All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.**

**AGAT**

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# Certificate of Analysis

AGAT WORK ORDER: 15T043707

PROJECT: 10002290

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - OC Pesticides (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2
		SAMPLE TYPE:		Water	Water
		G / S	DATE SAMPLED:	11/17/2015	11/17/2015
Gamma-Hexachlorocyclohexane	µg/L	0.01	0.01	<0.01	<0.01
Heptachlor	µg/L	0.01	0.01	<0.01	<0.01
Aldrin	µg/L	0.01	0.01	<0.01	<0.01
Heptachlor Epoxide	µg/L	0.01	0.01	<0.01	<0.01
Endosulfan	µg/L	0.05	0.05	<0.05	<0.05
Chlordane	µg/L	0.06	0.04	<0.04	<0.04
DDE	µg/L	10	0.01	<0.01	<0.01
DDD	µg/L	1.8	0.05	<0.05	<0.05
DDT	µg/L	0.05	0.04	<0.04	<0.04
Dieldrin	µg/L	0.05	0.02	<0.02	<0.02
Endrin	µg/L	0.05	0.05	<0.05	<0.05
Methoxychlor	µg/L	0.05	0.04	<0.04	<0.04
Hexachlorobenzene	ug/L	0.01	0.01	<0.01	<0.01
Hexachlorobutadiene	ug/L	0.01	0.01	<0.01	<0.01
Hexachloroethane	ug/L	0.01	0.01	<0.01	<0.01
<b>Surrogate</b>		<b>Acceptable Limits</b>			
TCMX	%	50-140	97	120	
Decachlorobiphenyl	%	60-140	88	87	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7207633-7207634 Note: DDT applies to the total of op'DDT and pp'DDT, DDD applies to the total of op'DDD and pp'DDD and DDE applies to the total of op'DDE and pp'DDE. Endosulfan applies to the total of Endosulfan I and Endosulfan II.

Chlordane applies to the total of Alpha-Chlordane and Gamma-Chlordane.

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PROJECT: 10002290

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2
		SAMPLE TYPE:		Water	Water
		G / S	DATE SAMPLED:	11/17/2015	11/17/2015
				7207633	7207634
Naphthalene	µg/L	7	0.20	<0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20	<0.20
Phenanthrene	µg/L	0.1	0.10	<0.10	<0.10
Anthracene	µg/L	0.1	0.10	<0.10	<0.10
Fluoranthene	µg/L	0.4	0.20	<0.20	<0.20
Pyrene	µg/L	0.2	0.20	<0.20	<0.20
Benz(a)anthracene	µg/L	0.2	0.20	<0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10	<0.10
Benzo(b)flouranthene	µg/L	0.1	0.10	<0.10	<0.10
Benzo(k)flouranthene	µg/L	0.1	0.10	<0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	2	0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits			
Chrysene-d12	%	50-140	73	91	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7207633-7207634 Note: The result for Benzo(b)Flouranthene is the total of the Benzo(b)&amp;(j)Flouranthene isomers because the isomers co-elute on the GC column.

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2
		SAMPLE TYPE:		Water	Water
		G / S	RDL	11/17/2015	11/17/2015
F1 (C6 to C10)	µg/L		25	<25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25	<25	<25
F2 (C10 to C16)	µg/L	150	100	<100	<100
F2 (C10 to C16) minus Naphthalene	µg/L		100	<100	<100
F3 (C16 to C34)	µg/L	500	100	<100	<100
F3 (C16 to C34) minus PAHs	µg/L		100	<100	<100
F4 (C34 to C50)	µg/L	500	100	<100	<100
Gravimetric Heavy Hydrocarbons	µg/L	500	500	NA	NA
<b>Surrogate</b>		<b>Unit</b>	<b>Acceptable Limits</b>		
Terphenyl	%	60-140	105	83	

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

**7207633-7207634** The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6-C50 results are corrected for BTEX and PAH contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

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SAMPLING SITE: County Road 19 & Lakeshore

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2	BH9 Dup	Trip Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		G / S	RDL	11/17/2015 7207633	11/17/2015 7207634	11/17/2015 7207650	11/17/2015 7207653
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	5	0.30	<0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	400	1.0	<1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.2	0.20	<0.20	<0.20	<0.20	<0.20
Benzene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	2	0.20	<0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
Toluene	µg/L	0.8	0.20	<0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	2	0.10	<0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20	<0.20

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CLIENT NAME: SPL CONSULTANTS

SAMPLING SITE: County Road 19 &amp; Lakeshore

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2	BH9 Dup	Trip Blank
		SAMPLE TYPE:		Water	Water	Water	Water
		G / S	RDL	11/17/2015	11/17/2015	11/17/2015	11/17/2015
Bromoform	µg/L	5	0.10	<0.10	<0.10	<0.10	<0.10
Styrene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30	<0.30	<0.30
Xylene Mixture	µg/L	72	0.20	<0.20	<0.20	<0.20	<0.20
n-Hexane	µg/L	5	0.20	0.75	<0.20	0.60	<0.20
Surrogate	Unit	Acceptable Limits					
Toluene-d8	% Recovery	50-140		106	88	100	96
4-Bromofluorobenzene	% Recovery	50-140		91	88	79	75

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

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SAMPLING SITE: County Road 19 & Lakeshore

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

## O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2015-11-18

DATE REPORTED: 2015-11-25

Parameter	Unit	SAMPLE DESCRIPTION:		BH9	BH2
		SAMPLE TYPE:		Water	Water
		G / S	DATE SAMPLED:	11/17/2015	11/17/2015
				7207633	7207634
Antimony	µg/L	1.5	0.5	<0.5	0.5
Arsenic	µg/L	13	1.0	<1.0	1.0
Barium	µg/L	610	2.0	100	2.0
Beryllium	µg/L	0.5	0.5	<0.5	0.5
Boron	µg/L	1700	10.0	60.3	10.0
Cadmium	µg/L	0.5	0.2	<0.2	0.2
Chromium	µg/L	11	2.0	<2.0	2.0
Cobalt	µg/L	3.8	0.5	0.7	0.5
Copper	µg/L	5	1.0	1.2	1.0
Lead	µg/L	1.9	0.5	<0.5	0.5
Molybdenum	µg/L	23	0.5	2.8	0.5
Nickel	µg/L	14	1.0	<1.0	1.0
Selenium	µg/L	5	1.0	<1.0	1.0
Silver	µg/L	0.3	0.2	<0.2	0.2
Thallium	µg/L	0.5	0.3	<0.3	0.3
Uranium	µg/L	8.9	0.5	3.0	0.5
Vanadium	µg/L	3.9	0.4	<0.4	0.4
Zinc	µg/L	160	5.0	<5.0	5.0
Mercury	µg/L	0.1	0.02	<0.02	0.02
Chromium VI	µg/L	25	5	<5	5
Cyanide	µg/L	5	2	<2	2
Sodium	µg/L	490000	500	8270	1000
Chloride	µg/L	790000	200	13600	500
Nitrate as N	µg/L	100	<100	250	<250
Nitrite as N	µg/L	100	<100	250	<250
Electrical Conductivity	uS/cm		2	600	2
pH	pH Units	NA	8.06	NA	7.96

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043707

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore

SAMPLED BY: Scott Watson

### Trace Organics Analysis

RPT Date: Nov 25, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	

#### O. Reg. 153(511) - VOCs (Water)

Dichlorodifluoromethane	7209576	< 0.20	< 0.20	NA	< 0.20	100%	50%	140%	105%	50%	140%	58%	50%	140%
Vinyl Chloride	7209576	< 0.17	< 0.17	NA	< 0.17	69%	50%	140%	125%	50%	140%	76%	50%	140%
Bromomethane	7209576	< 0.20	< 0.20	NA	< 0.20	64%	50%	140%	121%	50%	140%	80%	50%	140%
Trichlorofluoromethane	7209576	< 0.40	< 0.40	NA	< 0.40	64%	50%	140%	129%	50%	140%	72%	50%	140%
Acetone	7209576	< 1.0	< 1.0	NA	< 1.0	103%	50%	140%	89%	50%	140%	116%	50%	140%
1,1-Dichloroethylene	7209576	< 0.30	< 0.30	NA	< 0.30	68%	50%	140%	92%	60%	130%	96%	50%	140%
Methylene Chloride	7209576	< 0.30	< 0.30	NA	< 0.30	81%	50%	140%	88%	60%	130%	100%	50%	140%
trans- 1,2-Dichloroethylene	7209576	< 0.20	< 0.20	NA	< 0.20	79%	50%	140%	90%	60%	130%	102%	50%	140%
Methyl tert-butyl ether	7209576	< 0.20	< 0.20	NA	< 0.20	87%	50%	140%	87%	60%	130%	97%	50%	140%
1,1-Dichloroethane	7209576	< 0.30	< 0.30	NA	< 0.30	86%	50%	140%	90%	60%	130%	98%	50%	140%
Methyl Ethyl Ketone	7209576	< 1.0	< 1.0	NA	< 1.0	105%	50%	140%	89%	50%	140%	87%	50%	140%
cis- 1,2-Dichloroethylene	7209576	< 0.20	< 0.20	NA	< 0.20	80%	50%	140%	89%	60%	130%	98%	50%	140%
Chloroform	7209576	< 0.20	< 0.20	NA	< 0.20	89%	50%	140%	90%	60%	130%	98%	50%	140%
1,2-Dichloroethane	7209576	< 0.20	< 0.20	NA	< 0.20	94%	50%	140%	96%	60%	130%	106%	50%	140%
1,1,1-Trichloroethane	7209576	< 0.30	< 0.30	NA	< 0.30	86%	50%	140%	90%	60%	130%	97%	50%	140%
Carbon Tetrachloride	7209576	< 0.20	< 0.20	NA	< 0.20	85%	50%	140%	92%	60%	130%	94%	50%	140%
Benzene	7209576	< 0.20	< 0.20	NA	< 0.20	83%	50%	140%	94%	60%	130%	95%	50%	140%
1,1-Dichloropropane	7209576	< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	88%	60%	130%	96%	50%	140%
Trichloroethylene	7209576	< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	87%	60%	130%	99%	50%	140%
Bromodichloromethane	7209576	< 0.20	< 0.20	NA	< 0.20	92%	50%	140%	89%	60%	130%	95%	50%	140%
Methyl Isobutyl Ketone	7209576	< 1.0	< 1.0	NA	< 1.0	86%	50%	140%	87%	50%	140%	94%	50%	140%
1,1,2-Trichloroethane	7209576	< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	99%	60%	130%	98%	50%	140%
Toluene	7209576	< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	103%	60%	130%	89%	50%	140%
Dibromochloromethane	7209576	< 0.10	< 0.10	NA	< 0.10	91%	50%	140%	93%	60%	130%	84%	50%	140%
Ethylene Dibromide	7209576	< 0.10	< 0.10	NA	< 0.10	91%	50%	140%	94%	60%	130%	86%	50%	140%
Tetrachloroethylene	7209576	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	106%	60%	130%	86%	50%	140%
1,1,1,2-Tetrachloroethane	7209576	< 0.10	< 0.10	NA	< 0.10	110%	50%	140%	97%	60%	130%	87%	50%	140%
Chlorobenzene	7209576	< 0.10	< 0.10	NA	< 0.10	96%	50%	140%	98%	60%	130%	90%	50%	140%
Ethylbenzene	7209576	< 0.10	< 0.10	NA	< 0.10	94%	50%	140%	99%	60%	130%	86%	50%	140%
m & p-Xylene	7209576	< 0.20	< 0.20	NA	< 0.20	94%	50%	140%	98%	60%	130%	88%	50%	140%
Bromoform	7209576	< 0.10	< 0.10	NA	< 0.10	97%	50%	140%	92%	60%	130%	85%	50%	140%
Styrene	7209576	< 0.10	< 0.10	NA	< 0.10	82%	50%	140%	87%	60%	130%	83%	50%	140%
1,1,2,2-Tetrachloroethane	7209576	< 0.10	< 0.10	NA	< 0.10	99%	50%	140%	91%	60%	130%	92%	50%	140%
o-Xylene	7209576	< 0.10	< 0.10	NA	< 0.10	98%	50%	140%	99%	60%	130%	91%	50%	140%
1,3-Dichlorobenzene	7209576	< 0.10	< 0.10	NA	< 0.10	86%	50%	140%	87%	60%	130%	84%	50%	140%
1,4-Dichlorobenzene	7209576	< 0.10	< 0.10	NA	< 0.10	96%	50%	140%	98%	60%	130%	93%	50%	140%
1,2-Dichlorobenzene	7209576	< 0.10	< 0.10	NA	< 0.10	92%	50%	140%	91%	60%	130%	91%	50%	140%
1,3-Dichloropropene	7209576	< 0.30	< 0.30	NA	< 0.30	75%	50%	140%	76%	60%	130%	75%	50%	140%
n-Hexane	7209576	< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	106%	60%	130%	76%	50%	140%



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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043707

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore

SAMPLED BY: Scott Watson

### Trace Organics Analysis (Continued)

RPT Date: Nov 25, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	

#### O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

F1 (C6 to C10)	7207847	< 25	< 25	NA	< 25	97%	60%	140%	89%	60%	140%	88%	60%	140%	
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	103%	60%	140%	60%	60%	140%	70%	60%	140%
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	103%	60%	140%	82%	60%	140%	103%	60%	140%
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	90%	60%	140%	98%	60%	140%	98%	60%	140%

#### O. Reg. 153(511) - PAHs (Water)

Naphthalene	TW	< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	53%	50%	140%	68%	50%	140%
Acenaphthylene	TW	< 0.20	< 0.20	NA	< 0.20	100%	50%	140%	70%	50%	140%	81%	50%	140%
Acenaphthene	TW	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	71%	50%	140%	82%	50%	140%
Fluorene	TW	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	76%	50%	140%	84%	50%	140%
Phenanthrene	TW	< 0.10	< 0.10	NA	< 0.10	95%	50%	140%	91%	50%	140%	91%	50%	140%
Anthracene	TW	< 0.10	< 0.10	NA	< 0.10	91%	50%	140%	89%	50%	140%	84%	50%	140%
Fluoranthene	TW	< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	110%	50%	140%	96%	50%	140%
Pyrene	TW	< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	110%	50%	140%	94%	50%	140%
Benz(a)anthracene	TW	< 0.20	< 0.20	NA	< 0.20	90%	50%	140%	111%	50%	140%	89%	50%	140%
Chrysene	TW	< 0.10	< 0.10	NA	< 0.10	109%	50%	140%	109%	50%	140%	86%	50%	140%
Benzo(b)fluoranthene	TW	< 0.10	< 0.10	NA	< 0.10	98%	50%	140%	127%	50%	140%	107%	50%	140%
Benzo(k)fluoranthene	TW	< 0.10	< 0.10	NA	< 0.10	111%	50%	140%	139%	50%	140%	111%	50%	140%
Benzo(a)pyrene	TW	< 0.01	< 0.01	NA	< 0.01	111%	50%	140%	125%	50%	140%	104%	50%	140%
Indeno(1,2,3-cd)pyrene	TW	< 0.20	< 0.20	NA	< 0.20	75%	50%	140%	92%	50%	140%	69%	50%	140%
Dibenz(a,h)anthracene	TW	< 0.20	< 0.20	NA	< 0.20	78%	50%	140%	95%	50%	140%	71%	50%	140%
Benzo(g,h,i)perylene	TW	< 0.20	< 0.20	NA	< 0.20	74%	50%	140%	81%	50%	140%	59%	50%	140%
2-and 1-methyl Naphthalene	TW	< 0.20	< 0.20	NA	< 0.20	112%	50%	140%	67%	50%	140%	79%	50%	140%

#### O. Reg. 153(511) - OC Pesticides (Water)

Gamma-Hexachlorocyclohexane	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	100%	50%	140%	79%	50%	140%	69%	50%	140%
Heptachlor	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	110%	50%	140%	103%	50%	140%	122%	50%	140%
Aldrin	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	108%	50%	140%	90%	50%	140%	112%	50%	140%
Heptachlor Epoxide	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	98%	50%	140%	76%	50%	140%	90%	50%	140%
Endosulfan	7192234	7192234	< 0.05	< 0.05	NA	< 0.05	122%	50%	140%	98%	50%	140%	118%	50%	140%
Chlordane	7192234	7192234	< 0.04	< 0.04	NA	< 0.04	113%	50%	140%	88%	50%	140%	109%	50%	140%
DDE	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	105%	50%	140%	95%	50%	140%	85%	50%	140%
DDD	7192234	7192234	< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	87%	50%	140%	107%	50%	140%
DDT	7192234	7192234	< 0.04	< 0.04	NA	< 0.04	130%	50%	140%	120%	50%	140%	130%	50%	140%
Dieldrin	7192234	7192234	< 0.02	< 0.02	NA	< 0.02	108%	50%	140%	88%	50%	140%	104%	50%	140%
Endrin	7192234	7192234	< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	87%	50%	140%	99%	50%	140%
Methoxychlor	7192234	7192234	< 0.04	< 0.04	NA	< 0.04	125%	50%	140%	118%	50%	140%	130%	50%	140%
Hexachlorobenzene	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	105%	50%	140%	93%	50%	140%	90%	50%	140%
Hexachlorobutadiene	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	101%	50%	140%	90%	50%	140%	85%	50%	140%

#### AGAT QUALITY ASSURANCE REPORT (V1)

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AGAT Laboratories is accredited to ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA) and/or Standards Council of Canada (SCC) for specific tests listed on the scope of accreditation. AGAT Laboratories (Mississauga) is also accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) for specific drinking water tests. Accreditations are location and parameter specific. A complete listing of parameters for each location is available from [www.cala.ca](http://www.cala.ca) and/or [www.scc.ca](http://www.scc.ca). The tests in this report may not necessarily be included in the scope of accreditation.

Results relate only to the items tested and to all the items tested



**AGAT**

Laboratories

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## Quality Assurance

CLIENT NAME: SPL CONSULTANTS

AGAT WORK ORDER: 15T043707

PROJECT: 10002290

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: County Road 19 & Lakeshore

SAMPLED BY: Scott Watson

### Trace Organics Analysis (Continued)

RPT Date: Nov 25, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE		
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits	
			< 0.01	< 0.01	NA			Lower	Upper		Lower	Upper		Lower	Upper
Hexachloroethane	7192234	7192234	< 0.01	< 0.01	NA	< 0.01	103%	50%	140%	98%	50%	140%	93%	50%	140%

Comments: When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA). Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.

**Certified By:**



**AGAT**

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SAMPLING SITE: County Road 19 & Lakeshore

SAMPLED BY: Scott Watson

### Water Analysis

RPT Date: Nov 25, 2015			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	

#### O. Reg. 153(511) - Metals & Inorganics (Water)

Antimony	7207633	7207633	<0.5	<0.5	NA	< 0.5	103%	70%	130%	98%	80%	120%	112%	70%	130%
Arsenic	7207633	7207633	<1.0	<1.0	NA	< 1.0	106%	70%	130%	102%	80%	120%	103%	70%	130%
Barium	7207633	7207633	100	99.1	0.9%	< 2.0	103%	70%	130%	105%	80%	120%	112%	70%	130%
Beryllium	7207633	7207633	<0.5	<0.5	NA	< 0.5	105%	70%	130%	101%	80%	120%	108%	70%	130%
Boron	7207633	7207633	60.3	61.9	2.6%	< 10.0	102%	70%	130%	98%	80%	120%	94%	70%	130%
Cadmium	7207633	7207633	<0.2	<0.2	NA	< 0.2	102%	70%	130%	102%	80%	120%	126%	70%	130%
Chromium	7207633	7207633	<2.0	<2.0	NA	< 2.0	103%	70%	130%	103%	80%	120%	125%	70%	130%
Cobalt	7207633	7207633	0.7	0.7	NA	< 0.5	107%	70%	130%	107%	80%	120%	116%	70%	130%
Copper	7207633	7207633	1.2	1.2	NA	< 1.0	102%	70%	130%	108%	80%	120%	111%	70%	130%
Lead	7207633	7207633	<0.5	<0.5	NA	< 0.5	103%	70%	130%	104%	80%	120%	108%	70%	130%
Molybdenum	7207633	7207633	2.8	2.8	0.0%	< 0.5	105%	70%	130%	103%	80%	120%	121%	70%	130%
Nickel	7207633	7207633	<1.0	<1.0	NA	< 1.0	108%	70%	130%	108%	80%	120%	113%	70%	130%
Selenium	7207633	7207633	<1.0	<1.0	NA	< 1.0	98%	70%	130%	97%	80%	120%	104%	70%	130%
Silver	7207633	7207633	<0.2	<0.2	NA	< 0.2	102%	70%	130%	105%	80%	120%	113%	70%	130%
Thallium	7207633	7207633	<0.3	<0.3	NA	< 0.3	103%	70%	130%	107%	80%	120%	114%	70%	130%
Uranium	7207633	7207633	3.0	3.0	0.0%	< 0.5	101%	70%	130%	101%	80%	120%	109%	70%	130%
Vanadium	7207633	7207633	<0.4	<0.4	NA	< 0.4	101%	70%	130%	104%	80%	120%	119%	70%	130%
Zinc	7207633	7207633	<5.0	<5.0	NA	< 5.0	105%	70%	130%	108%	80%	120%	127%	70%	130%
Mercury	7207633	7207633	<0.02	<0.02	NA	< 0.02	97%	70%	130%	100%	80%	120%	97%	70%	130%
Chromium VI	7205757		<5	<5	NA	< 5	100%	70%	130%	102%	80%	120%	103%	70%	130%
Cyanide	7208661		<2	<2	NA	< 2	90%	70%	130%	106%	80%	120%	105%	70%	130%
Sodium	7212644	65500	65600	0.2%	< 500	104%	70%	130%	103%	80%	120%	99%	70%	130%	
Chloride	7211907		28.4	28.7	NA	< 100	93%	70%	130%	101%	70%	130%	108%	70%	130%
Nitrate as N	7211907		0.8	0.39	NA	< 50	101%	70%	130%	104%	70%	130%	106%	70%	130%
Nitrite as N	7211907		< 50	< 50	NA	< 50	NA	70%	130%	98%	70%	130%	96%	70%	130%
Electrical Conductivity	7206689		3000	2990	0.3%	< 2	107%	90%	110%	NA			NA		
pH	7206689		8.07	8.00	0.9%	NA	99%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.

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

**Certified By:**



## Method Summary

CLIENT NAME: SPL CONSULTANTS

PROJECT: 10002290

SAMPLING SITE: County Road 19 & Lakeshore

AGAT WORK ORDER: 15T043707

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Gamma-Hexachlorocyclohexane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Heptachlor	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Aldrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Heptachlor Epoxide	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Endosulfan	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Chlordane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDE	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDD	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
DDT	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Dieldrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Endrin	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Methoxychlor	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachlorobenzene	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachlorobutadiene	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Hexachloroethane	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
TCMX	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Decachlorobiphenyl	ORG-91-5112	EPA SW-846 3510 & 8081	GC/ECD
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
F1 (C6 to C10)	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL-91-5010	MOE PHC E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS



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ATTENTION TO: Tijana Medencevic

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PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS



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SAMPLING SITE: County Road 19 & Lakeshore

SAMPLED BY: Scott Watson

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Water Analysis</b>			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW-846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Nitrate as N	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Nitrite as N	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE



**CLIENT NAME: WSP CANADA INC.  
51 CONSTELLATION COURT  
TORONTO, ON M9W1K4  
(416) 798-0065**

**ATTENTION TO: Tijana Medencevic**

**PROJECT: 151-62850-00**

**AGAT WORK ORDER: 16T080859**

**SOIL ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Coordinator**

**TRACE ORGANICS REVIEWED BY: Oksana Gushyla, Trace Organics Lab Supervisor**

**WATER ANALYSIS REVIEWED BY: Amanjot Bhela, Inorganic Coordinator**

**DATE REPORTED: Apr 04, 2016**

**PAGES (INCLUDING COVER): 23**

**VERSION\*: 1**

Should you require any information regarding this analysis please contact your client services representative at (905) 712-5100

**\*NOTES**

All samples will be disposed of within 30 days following analysis. Please contact the lab if you require additional sample storage time.



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AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

5835 COOPERS AVENUE  
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FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - Metals & Inorganics (Soil)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION: BH16-01 SS1		
		SAMPLE TYPE:		Soil
		G / S	DATE SAMPLED:	3/23/2016
Antimony	µg/g	1.3	0.8	<0.8
Arsenic	µg/g	18	1	2
Barium	µg/g	220	2	6
Beryllium	µg/g	2.5	0.5	<0.5
Boron	µg/g	36	5	<5
Boron (Hot Water Soluble)	µg/g	NA	0.10	0.21
Cadmium	µg/g	1.2	0.5	<0.5
Chromium	µg/g	70	2	6
Cobalt	µg/g	21	0.5	1.9
Copper	µg/g	92	1	3
Lead	µg/g	120	1	2
Molybdenum	µg/g	2	0.5	<0.5
Nickel	µg/g	82	1	3
Selenium	µg/g	1.5	0.4	<0.4
Silver	µg/g	0.5	0.2	<0.2
Thallium	µg/g	1	0.4	<0.4
Uranium	µg/g	2.5	0.5	<0.5
Vanadium	µg/g	86	1	7
Zinc	µg/g	290	5	9
Chromium VI	µg/g	0.66	0.2	<0.2
Cyanide	µg/g	0.051	0.040	<0.040
Mercury	µg/g	0.27	0.10	<0.10
Electrical Conductivity	mS/cm	0.57	0.005	0.093
Sodium Adsorption Ratio	NA	2.4	NA	0.053
pH, 2:1 CaCl <sub>2</sub> Extraction	pH Units	NA	NA	7.85

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7464190 EC & SAR were determined on the DI water extract obtained from the 2:1 leaching procedure (2 parts DI water:1 part soil). pH was determined on the 0.01M CaCl<sub>2</sub> extract prepared at 2:1 ratio.

Certified By:



CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - PAHs (Soil)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

SAMPLE DESCRIPTION: BH16-01 SS1				
Parameter	Unit	SAMPLE TYPE: G / S	DATE SAMPLED: 3/23/2016	Soil RDL 7464190
Naphthalene	µg/g	0.09	0.05	<0.05
Acenaphthylene	µg/g	0.093	0.05	<0.05
Acenaphthene	µg/g	0.072	0.05	<0.05
Fluorene	µg/g	0.12	0.05	<0.05
Phenanthrene	µg/g	0.69	0.05	<0.05
Anthracene	µg/g	0.16	0.05	<0.05
Fluoranthene	µg/g	0.56	0.05	<0.05
Pyrene	µg/g	1	0.05	<0.05
Benz(a)anthracene	µg/g	0.36	0.05	<0.05
Chrysene	µg/g	2.8	0.05	<0.05
Benzo(b)fluoranthene	µg/g	0.47	0.05	<0.05
Benzo(k)fluoranthene	µg/g	0.48	0.05	<0.05
Benzo(a)pyrene	µg/g	0.3	0.05	<0.05
Indeno(1,2,3-cd)pyrene	µg/g	0.23	0.05	<0.05
Dibenz(a,h)anthracene	µg/g	0.1	0.05	<0.05
Benzo(g,h,i)perylene	µg/g	0.68	0.05	<0.05
2-and 1-methyl Naphthalene	µg/g	0.59	0.05	<0.05
Moisture Content	%		0.1	9.0
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140	113	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7464190 Results are based on the dry weight of the soil.  
 Note: The result for Benzo(b)Fluoranthene is the total of the Benzo(b)&(j)Fluoranthene isomers because the isomers co-elute on the GC column.

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

# Certificate of Analysis

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ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - PAHs (Water)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION:		MW16-01
		G / S	RDL	Water
Naphthalene	µg/L	7	0.20	<0.20
Acenaphthylene	µg/L	1	0.20	<0.20
Acenaphthene	µg/L	4.1	0.20	<0.20
Fluorene	µg/L	120	0.20	<0.20
Phenanthrene	µg/L	0.1	0.10	<0.10
Anthracene	µg/L	0.1	0.10	<0.10
Fluoranthene	µg/L	0.4	0.20	<0.20
Pyrene	µg/L	0.2	0.20	<0.20
Benz(a)anthracene	µg/L	0.2	0.20	<0.20
Chrysene	µg/L	0.1	0.10	<0.10
Benzo(b)flouranthene	µg/L	0.1	0.10	<0.10
Benzo(k)flouranthene	µg/L	0.1	0.10	<0.10
Benzo(a)pyrene	µg/L	0.01	0.01	<0.01
Indeno(1,2,3-cd)pyrene	µg/L	0.2	0.20	<0.20
Dibenz(a,h)anthracene	µg/L	0.2	0.20	<0.20
Benzo(g,h,i)perylene	µg/L	0.2	0.20	<0.20
2-and 1-methyl Naphthalene	µg/L	2	0.20	<0.20
Surrogate	Unit	Acceptable Limits		
Chrysene-d12	%	50-140	109	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7464211

Note: The result for Benzo(b)Flouranthene is the total of the Benzo(b)&amp;(j)Flouranthene isomers because the isomers co-elute on the GC column.

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - PHCs F1 - F4 (Soil)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	BH16-02 SS2		BH16-01 SS2 5ft	
		SAMPLE DESCRIPTION:		SAMPLE TYPE:	6-7ft
		G / S	RDL	DATE SAMPLED:	Soil
Benzene	µg/g	0.02	0.02	<0.02	<0.02
Toluene	µg/g	0.2	0.08	<0.08	<0.08
Ethylbenzene	µg/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	µg/g	0.05	0.05	<0.05	<0.05
F1 (C6 to C10)	µg/g		5	<5	<5
F1 (C6 to C10) minus BTEX	µg/g	25	5	<5	<5
F2 (C10 to C16)	µg/g	10	10	<10	<10
F3 (C16 to C34)	µg/g	240	50	<50	<50
F4 (C34 to C50)	µg/g	120	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g	120	50	NA	NA
Moisture Content	%		0.1	7.7	19.3
<b>Surrogate</b>	<b>Unit</b>	<b>Acceptable Limits</b>			
Terphenyl	%	60-140	68	65	

**Comments:** RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

**7464159-7464194** Results are based on sample dry weight.

The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and n-C34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16-C50 and are only determined if the chromatogram of the C34 - C50 hydrocarbons indicates that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6 - C50 results are corrected for BTEX contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 + nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Fractions 1-4 are quantified with the contribution of PAHs. Under Ontario Regulation 153, results are considered valid without determining the PAH contribution if not requested by the client.

Quality Control Data is available upon request.

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PROJECT: 151-62850-00

5835 COOPERS AVENUE  
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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

SAMPLE DESCRIPTION: MW16-01			
SAMPLE TYPE: Water			
DATE SAMPLED: 3/29/2016			
Parameter	Unit	G / S	RDL
F1 (C6 to C10)	µg/L	25	<25
F1 (C6 to C10) minus BTEX	µg/L	420	25
F2 (C10 to C16)	µg/L	150	100
F2 (C10 to C16) minus Naphthalene	µg/L	100	<100
F3 (C16 to C34)	µg/L	500	100
F3 (C16 to C34) minus PAHs	µg/L	100	<100
F4 (C34 to C50)	µg/L	500	100
Gravimetric Heavy Hydrocarbons	µg/L	500	500
<b>Surrogate</b>		<b>Acceptable Limits</b>	
Terphenyl	%	60-140	100

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

7464211

The C6-C10 fraction is calculated using Toluene response factor.

The C10 - C16, C16 - C34, and C34 - C50 fractions are calculated using the average response factor for n-C10, n-C16, and nC34.

Gravimetric Heavy Hydrocarbons are not included in the Total C16 - C50 and are only determined if the chromatogram of the C34 - C50 Hydrocarbons indicated that hydrocarbons >C50 are present.

The chromatogram has returned to baseline by the retention time of nC50.

Total C6-C50 results are corrected for BTEX and PAH contributions.

This method complies with the Reference Method for the CWS PHC and is validated for use in the laboratory.

nC6 and nC10 response factors are within 30% of Toluene response factor.

nC10, nC16 and nC34 response factors are within 10% of their average.

C50 response factor is within 70% of nC10 + nC16 nC34 average.

Linearity is within 15%.

Extraction and holding times were met for this sample.

Certified By:

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION:		BH16-01 SS2	BH16-01 SS2
		SAMPLE TYPE:		6-7ft	6-7ft QA/QC
		G / S	RDL	3/23/2016	3/23/2016
Dichlorodifluoromethane	µg/g	0.05	0.05	<0.05	<0.05
Vinyl Chloride	ug/g	0.02	0.02	<0.02	<0.02
Bromomethane	ug/g	0.05	0.05	<0.05	<0.05
Trichlorofluoromethane	ug/g	0.25	0.05	<0.05	<0.05
Acetone	ug/g	0.5	0.50	<0.50	<0.50
1,1-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methylene Chloride	ug/g	0.05	0.05	<0.05	<0.05
Trans- 1,2-Dichloroethylene	ug/g	0.05	0.05	<0.05	<0.05
Methyl tert-butyl Ether	ug/g	0.05	0.05	<0.05	<0.05
1,1-Dichloroethane	ug/g	0.05	0.02	<0.02	<0.02
Methyl Ethyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
Cis- 1,2-Dichloroethylene	ug/g	0.05	0.02	<0.02	<0.02
Chloroform	ug/g	0.05	0.04	<0.04	<0.04
1,2-Dichloroethane	ug/g	0.05	0.03	<0.03	<0.03
1,1,1-Trichloroethane	ug/g	0.05	0.05	<0.05	<0.05
Carbon Tetrachloride	ug/g	0.05	0.05	<0.05	<0.05
Benzene	ug/g	0.02	0.02	<0.02	<0.02
1,2-Dichloropropane	ug/g	0.05	0.03	<0.03	<0.03
Trichloroethylene	ug/g	0.05	0.03	<0.03	<0.03
Bromodichloromethane	ug/g	0.05	0.05	<0.05	<0.05
Methyl Isobutyl Ketone	ug/g	0.5	0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/g	0.05	0.04	<0.04	<0.04
Toluene	ug/g	0.2	0.05	<0.05	<0.05
Dibromochloromethane	ug/g	0.05	0.05	<0.05	<0.05
Ethylene Dibromide	ug/g	0.05	0.04	<0.04	<0.04
Tetrachloroethylene	ug/g	0.05	0.05	<0.05	<0.05
1,1,1,2-Tetrachloroethane	ug/g	0.05	0.04	<0.04	<0.04
Chlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Ethylbenzene	ug/g	0.05	0.05	<0.05	<0.05

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - VOCs (Soil)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION:		BH16-01 SS2	BH16-01 SS2
		SAMPLE TYPE:		6-7ft	6-7ft QA/QC
		G / S	RDL	Soil	Soil
m & p-Xylene	ug/g		0.05	<0.05	<0.05
Bromoform	ug/g	0.05	0.05	<0.05	<0.05
Styrene	ug/g	0.05	0.05	<0.05	<0.05
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.05	<0.05	<0.05
o-Xylene	ug/g		0.05	<0.05	<0.05
1,3-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,4-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
1,2-Dichlorobenzene	ug/g	0.05	0.05	<0.05	<0.05
Xylene Mixture	ug/g	0.05	0.05	<0.05	<0.05
1,3-Dichloropropene	μg/g	0.05	0.04	<0.04	<0.04
n-Hexane	μg/g	0.05	0.05	<0.05	<0.05
Moisture Content	%		0.1	8.4	9.6
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140	118	120	
4-Bromofluorobenzene	% Recovery	50-140	97	91	

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Soil - Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use

7464197-7464209 The sample was analysed using the high level technique. The sample was extracted using methanol, a small amount of the methanol extract was diluted in water and the purge & trap GC/MS analysis was performed. Results are based on the dry weight of the soil.

Certified By:



Laboratories

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION:		MW16-01	QA/QC Water	Trip Blank Water
		SAMPLE TYPE:	DATE SAMPLED:	Water		
		G / S	RDL	3/29/2016		
Dichlorodifluoromethane	µg/L	590	0.20	<0.20	<0.20	<0.20
Vinyl Chloride	µg/L	0.5	0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	0.89	0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L	150	0.40	<0.40	<0.40	<0.40
Acetone	µg/L	2700	1.0	<1.0	<1.0	<1.0
1,1-Dichloroethylene	µg/L	0.5	0.30	<0.30	<0.30	<0.30
Methylene Chloride	µg/L	5	0.30	<0.30	<0.30	<0.30
trans- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	15	0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	400	1.0	<1.0	<1.0	<1.0
cis- 1,2-Dichloroethylene	µg/L	1.6	0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	2	0.20	<0.20	<0.20	<0.20
1,2-Dichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	0.5	0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	0.2	0.20	<0.20	<0.20	<0.20
Benzene	µg/L	0.5	0.20	<0.20	<0.20	<0.20
1,2-Dichloropropane	µg/L	0.5	0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	2	0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	640	1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	µg/L	0.5	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	0.8	0.20	<0.20	<0.20	<0.20
Dibromochloromethane	µg/L	2	0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	0.2	0.10	<0.10	<0.10	<0.10
Tetrachloroethylene	µg/L	0.5	0.20	<0.20	<0.20	<0.20
1,1,1,2-Tetrachloroethane	µg/L	1.1	0.10	<0.10	<0.10	<0.10
Chlorobenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	0.5	0.10	<0.10	<0.10	<0.10

Certified By:



Laboratories

# Certificate of Analysis

AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

5835 COOPERS AVENUE  
MISSISSAUGA, ONTARIO  
CANADA L4Z 1Y2  
TEL (905)712-5100  
FAX (905)712-5122  
<http://www.agatlabs.com>

CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - VOCs (Water)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	MW16-01			
		SAMPLE DESCRIPTION:	MW16-01	QA/QC	Trip Blank
		SAMPLE TYPE:	Water	Water	Water
DATE SAMPLED:	G / S	3/29/2016	7464211	3/29/2016	7464263
RDL					7464266
m & p-Xylene	µg/L	0.20	<0.20	<0.20	<0.20
Bromoform	µg/L	5	0.10	<0.10	<0.10
Styrene	µg/L	0.5	0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	0.5	0.10	<0.10	<0.10
o-Xylene	µg/L	0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	0.5	0.10	<0.10	<0.10
1,3-Dichloropropene	µg/L	0.5	0.30	<0.30	<0.30
Xylene Mixture	µg/L	72	0.20	<0.20	<0.20
n-Hexane	µg/L	5	0.20	<0.20	<0.20
Surrogate	Unit	Acceptable Limits			
Toluene-d8	% Recovery	50-140	98	113	102
4-Bromofluorobenzene	% Recovery	50-140	83	103	92

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

Certified By:



Laboratories

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CLIENT NAME: WSP CANADA INC.

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

## O. Reg. 153(511) - Metals & Inorganics (Water)

DATE RECEIVED: 2016-03-30

DATE REPORTED: 2016-04-04

Parameter	Unit	SAMPLE DESCRIPTION:		MW16-01
		SAMPLE TYPE:		Water
		G / S	DATE SAMPLED:	3/29/2016
Antimony	µg/L	1.5	1.0	<1.0
Arsenic	µg/L	13	1.0	<1.0
Barium	µg/L	610	2.0	14.9
Beryllium	µg/L	0.5	0.5	<0.5
Boron	µg/L	1700	10.0	16.7
Cadmium	µg/L	0.5	0.2	<0.2
Chromium	µg/L	11	2.0	<2.0
Cobalt	µg/L	3.8	0.5	<0.5
Copper	µg/L	5	1.0	1.3
Lead	µg/L	1.9	0.5	<0.5
Molybdenum	µg/L	23	0.5	<0.5
Nickel	µg/L	14	1.0	<1.0
Selenium	µg/L	5	1.0	<1.0
Silver	µg/L	0.3	0.2	<0.2
Thallium	µg/L	0.5	0.3	<0.3
Uranium	µg/L	8.9	0.5	0.6
Vanadium	µg/L	3.9	0.4	<0.4
Zinc	µg/L	160	5.0	<5.0
Mercury	µg/L	0.1	0.02	<0.02
Chromium VI	µg/L	25	5	<5
Cyanide	µg/L	5	2	<2
Sodium	µg/L	490000	500	4950
Chloride	µg/L	790000	100	5740
Electrical Conductivity	µS/cm		2	477
pH	pH Units		NA	7.98

Comments: RDL - Reported Detection Limit; G / S - Guideline / Standard: Refers to Table 1: Full Depth Background Site Condition Standards - Ground Water - All Types of Property Uses

Certified By:



**AGAT**

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## Quality Assurance

CLIENT NAME: WSP CANADA INC.

AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

SAMPLED BY: Marco Visentin

### Soil Analysis

RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	

#### O. Reg. 153(511) - Metals & Inorganics (Soil)

Antimony	7467130	<0.8	<0.8	NA	< 0.8	88%	70%	130%	102%	80%	120%	101%	70%	130%	
Arsenic	7467130	3	3	NA	< 1	105%	70%	130%	97%	80%	120%	105%	70%	130%	
Barium	7467130	88	90	2.2%	< 2	88%	70%	130%	94%	80%	120%	85%	70%	130%	
Beryllium	7467130	0.5	0.5	NA	< 0.5	102%	70%	130%	103%	80%	120%	94%	70%	130%	
Boron	7467130	9	10	NA	< 5	72%	70%	130%	99%	80%	120%	87%	70%	130%	
Boron (Hot Water Soluble)	7466101	0.86	0.88	2.3%	< 0.10	128%	60%	140%	107%	70%	130%	103%	60%	140%	
Cadmium	7467130	<0.5	<0.5	NA	< 0.5	100%	70%	130%	100%	80%	120%	100%	70%	130%	
Chromium	7467130	18	18	0.0%	< 2	77%	70%	130%	101%	80%	120%	95%	70%	130%	
Cobalt	7467130	5.8	5.9	1.7%	< 0.5	84%	70%	130%	95%	80%	120%	92%	70%	130%	
Copper	7467130	8	8	0.0%	< 1	81%	70%	130%	97%	80%	120%	86%	70%	130%	
Lead	7467130	8	8	0.0%	< 1	93%	70%	130%	96%	80%	120%	84%	70%	130%	
Molybdenum	7467130	<0.5	<0.5	NA	< 0.5	95%	70%	130%	101%	80%	120%	112%	70%	130%	
Nickel	7467130	9	9	0.0%	< 1	84%	70%	130%	97%	80%	120%	90%	70%	130%	
Selenium	7467130	<0.4	<0.4	NA	< 0.4	91%	70%	130%	102%	80%	120%	103%	70%	130%	
Silver	7467130	<0.2	<0.2	NA	< 0.2	75%	70%	130%	101%	80%	120%	96%	70%	130%	
Thallium	7467130	<0.4	<0.4	NA	< 0.4	89%	70%	130%	100%	80%	120%	90%	70%	130%	
Uranium	7467130	<0.5	<0.5	NA	< 0.5	87%	70%	130%	99%	80%	120%	86%	70%	130%	
Vanadium	7467130	25	25	0.0%	< 1	81%	70%	130%	93%	80%	120%	97%	70%	130%	
Zinc	7467130	28	28	0.0%	< 5	96%	70%	130%	105%	80%	120%	92%	70%	130%	
Chromium VI	7464190	7464190	<0.2	<0.2	NA	< 0.2	96%	70%	130%	98%	80%	120%	100%	70%	130%
Cyanide	7465099	<0.040	<0.040	NA	< 0.040	101%	70%	130%	101%	80%	120%	102%	70%	130%	
Mercury	7467130	<0.10	<0.10	NA	< 0.10	114%	70%	130%	99%	80%	120%	92%	70%	130%	
Electrical Conductivity	7343331	0.759	0.763	0.5%	< 0.005	93%	90%	110%	NA			NA			
Sodium Adsorption Ratio	7467741	0.031	0.031	0.0%	NA	NA			NA			NA			
pH, 2:1 CaCl <sub>2</sub> Extraction	7463489	10.9	11.3	3.6%	NA	101%	80%	120%	NA			NA			

Comments: NA signifies Not Applicable.

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

**Certified By:**

## Quality Assurance

**CLIENT NAME:** WSP CANADA INC.

**AGAT WORK ORDER:** 16T080859

**PROJECT:** 151-62850-00

**ATTENTION TO:** Tijana Medencevic

**SAMPLING SITE:** 208 Lakeshore Road, Blue Mountains, ON

**SAMPLED BY:** Marco Visentin

<b>Trace Organics Analysis</b>																
RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
							Lower	Upper	Lower		Upper	Lower		Upper	Lower	
<b>O. Reg. 153(511) - PHCs F1 - F4 (Soil)</b>																
Benzene	7465165		< 0.02	< 0.02	NA	< 0.02	98%	60%	130%	109%	60%	130%	101%	60%	130%	
Toluene	7465165		< 0.08	< 0.08	NA	< 0.08	105%	60%	130%	112%	60%	130%	102%	60%	130%	
Ethylbenzene	7465165		< 0.05	< 0.05	NA	< 0.05	107%	60%	130%	106%	60%	130%	97%	60%	130%	
Xylene Mixture	7465165		< 0.05	< 0.05	NA	< 0.05	107%	60%	130%	106%	60%	130%	97%	60%	130%	
F1 (C6 to C10)	7465165		< 5	< 5	NA	< 5	88%	60%	130%	108%	85%	115%	102%	70%	130%	
F2 (C10 to C16)	7466688		< 10	< 10	NA	< 10	108%	60%	130%	86%	80%	120%	77%	70%	130%	
F3 (C16 to C34)	7466688		500	530	5.8%	< 50	105%	60%	130%	94%	80%	120%	95%	70%	130%	
F4 (C34 to C50)	7466688		690	680	1.5%	< 50	103%	60%	130%	99%	80%	120%	99%	70%	130%	
<b>O. Reg. 153(511) - PAHs (Soil)</b>																
Naphthalene	7458324		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	93%	50%	140%	66%	50%	140%	
Acenaphthylene	7458324		< 0.05	< 0.05	NA	< 0.05	98%	50%	140%	96%	50%	140%	72%	50%	140%	
Acenaphthene	7458324		< 0.05	< 0.05	NA	< 0.05	100%	50%	140%	94%	50%	140%	74%	50%	140%	
Fluorene	7458324		< 0.05	< 0.05	NA	< 0.05	94%	50%	140%	93%	50%	140%	71%	50%	140%	
Phenanthrene	7458324		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	89%	50%	140%	76%	50%	140%	
Anthracene	7458324		< 0.05	< 0.05	NA	< 0.05	91%	50%	140%	102%	50%	140%	80%	50%	140%	
Fluoranthene	7458324		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	100%	50%	140%	89%	50%	140%	
Pyrene	7458324		< 0.05	< 0.05	NA	< 0.05	99%	50%	140%	99%	50%	140%	88%	50%	140%	
Benz(a)anthracene	7458324		< 0.05	< 0.05	NA	< 0.05	106%	50%	140%	105%	50%	140%	97%	50%	140%	
Chrysene	7458324		< 0.05	< 0.05	NA	< 0.05	115%	50%	140%	106%	50%	140%	95%	50%	140%	
Benzo(b)fluoranthene	7458324		< 0.05	< 0.05	NA	< 0.05	116%	50%	140%	86%	50%	140%	77%	50%	140%	
Benzo(k)fluoranthene	7458324		< 0.05	< 0.05	NA	< 0.05	108%	50%	140%	103%	50%	140%	92%	50%	140%	
Benzo(a)pyrene	7458324		< 0.05	< 0.05	NA	< 0.05	117%	50%	140%	101%	50%	140%	89%	50%	140%	
Indeno(1,2,3-cd)pyrene	7458324		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	83%	50%	140%	78%	50%	140%	
Dibenz(a,h)anthracene	7458324		< 0.05	< 0.05	NA	< 0.05	109%	50%	140%	90%	50%	140%	83%	50%	140%	
Benzo(g,h,i)perylene	7458324		< 0.05	< 0.05	NA	< 0.05	102%	50%	140%	77%	50%	140%	88%	50%	140%	
2-and 1-methyl Naphthalene	7458324		< 0.05	< 0.05	NA	< 0.05	107%	50%	140%	85%	50%	140%	63%	50%	140%	
<b>O. Reg. 153(511) - VOCs (Soil)</b>																
Dichlorodifluoromethane	7465165		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	119%	50%	140%	105%	50%	140%	
Vinyl Chloride	7465165		< 0.02	< 0.02	NA	< 0.02	92%	50%	140%	95%	50%	140%	89%	50%	140%	
Bromomethane	7465165		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	97%	50%	140%	87%	50%	140%	
Trichlorofluoromethane	7465165		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	98%	50%	140%	88%	50%	140%	
Acetone	7465165		< 0.50	< 0.50	NA	< 0.50	114%	50%	140%	86%	50%	140%	84%	50%	140%	
1,1-Dichloroethylene	7465165		< 0.05	< 0.05	NA	< 0.05	88%	50%	140%	73%	60%	130%	82%	50%	140%	
Methylene Chloride	7465165		< 0.05	< 0.05	NA	< 0.05	79%	50%	140%	77%	60%	130%	92%	50%	140%	
Trans- 1,2-Dichloroethylene	7465165		< 0.05	< 0.05	NA	< 0.05	73%	50%	140%	71%	60%	130%	80%	50%	140%	
Methyl tert-butyl Ether	7465165		< 0.05	< 0.05	NA	< 0.05	76%	50%	140%	73%	60%	130%	87%	50%	140%	
1,1-Dichloroethane	7465165		< 0.02	< 0.02	NA	< 0.02	82%	50%	140%	87%	60%	130%	75%	50%	140%	
Methyl Ethyl Ketone	7465165		< 0.50	< 0.50	NA	< 0.50	100%	50%	140%	113%	50%	140%	109%	50%	140%	



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## Quality Assurance

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

### Trace Organics Analysis (Continued)

RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL		METHOD BLANK SPIKE			MATRIX SPIKE				
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Cis- 1,2-Dichloroethylene	7465165		< 0.02	< 0.02	NA	< 0.02	76%	50%	140%	84%	60%	130%	92%	50%	140%	
Chloroform	7465165		< 0.04	< 0.04	NA	< 0.04	73%	50%	140%	71%	60%	130%	84%	50%	140%	
1,2-Dichloroethane	7465165		< 0.03	< 0.03	NA	< 0.03	83%	50%	140%	73%	60%	130%	90%	50%	140%	
1,1,1-Trichloroethane	7465165		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	88%	60%	130%	77%	50%	140%	
Carbon Tetrachloride	7465165		< 0.05	< 0.05	NA	< 0.05	71%	50%	140%	73%	60%	130%	70%	50%	140%	
Benzene	7465165		< 0.02	< 0.02	NA	< 0.02	84%	50%	140%	78%	60%	130%	93%	50%	140%	
1,2-Dichloropropane	7465165		< 0.03	< 0.03	NA	< 0.03	76%	50%	140%	80%	60%	130%	84%	50%	140%	
Trichloroethylene	7465165		< 0.03	< 0.03	NA	< 0.03	71%	50%	140%	81%	60%	130%	71%	50%	140%	
Bromodichloromethane	7465165		< 0.05	< 0.05	NA	< 0.05	71%	50%	140%	71%	60%	130%	71%	50%	140%	
Methyl Isobutyl Ketone	7465165		< 0.50	< 0.50	NA	< 0.50	89%	50%	140%	91%	50%	140%	96%	50%	140%	
1,1,2-Trichloroethane	7465165		< 0.04	< 0.04	NA	< 0.04	91%	50%	140%	98%	60%	130%	105%	50%	140%	
Toluene	7465165		< 0.05	< 0.05	NA	< 0.05	97%	50%	140%	96%	60%	130%	112%	50%	140%	
Dibromochloromethane	7465165		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	72%	60%	130%	70%	50%	140%	
Ethylene Dibromide	7465165		< 0.04	< 0.04	NA	< 0.04	74%	50%	140%	86%	60%	130%	96%	50%	140%	
Tetrachloroethylene	7465165		< 0.05	< 0.05	NA	< 0.05	93%	50%	140%	93%	60%	130%	106%	50%	140%	
1,1,1,2-Tetrachloroethane	7465165		< 0.04	< 0.04	NA	< 0.04	90%	50%	140%	73%	60%	130%	85%	50%	140%	
Chlorobenzene	7465165		< 0.05	< 0.05	NA	< 0.05	89%	50%	140%	94%	60%	130%	112%	50%	140%	
Ethylbenzene	7465165		< 0.05	< 0.05	NA	< 0.05	87%	50%	140%	91%	60%	130%	110%	50%	140%	
m & p-Xylene	7465165		< 0.05	< 0.05	NA	< 0.05	84%	50%	140%	90%	60%	130%	104%	50%	140%	
Bromoform	7465165		< 0.05	< 0.05	NA	< 0.05	64%	50%	140%	71%	60%	130%	75%	50%	140%	
Styrene	7465165		< 0.05	< 0.05	NA	< 0.05	71%	50%	140%	79%	60%	130%	102%	50%	140%	
1,1,2,2-Tetrachloroethane	7465165		< 0.05	< 0.05	NA	< 0.05	80%	50%	140%	89%	60%	130%	86%	50%	140%	
o-Xylene	7465165		< 0.05	< 0.05	NA	< 0.05	83%	50%	140%	89%	60%	130%	105%	50%	140%	
1,3-Dichlorobenzene	7465165		< 0.05	< 0.05	NA	< 0.05	75%	50%	140%	85%	60%	130%	104%	50%	140%	
1,4-Dichlorobenzene	7465165		< 0.05	< 0.05	NA	< 0.05	74%	50%	140%	86%	60%	130%	110%	50%	140%	
1,2-Dichlorobenzene	7465165		< 0.05	< 0.05	NA	< 0.05	73%	50%	140%	89%	60%	130%	109%	50%	140%	
1,3-Dichloropropene	7465165		< 0.04	< 0.04	NA	< 0.04	76%	50%	140%	75%	60%	130%	76%	50%	140%	
n-Hexane	7465165		< 0.05	< 0.05	NA	< 0.05	78%	50%	140%	81%	60%	130%	90%	50%	140%	
<b>O. Reg. 153(511) - VOCs (Water)</b>																
Dichlorodifluoromethane	7465898		< 0.20	< 0.20	NA	< 0.20	101%	50%	140%	107%	50%	140%	99%	50%	140%	
Vinyl Chloride	7465898		< 0.17	< 0.17	NA	< 0.17	102%	50%	140%	112%	50%	140%	93%	50%	140%	
Bromomethane	7465898		< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	94%	50%	140%	89%	50%	140%	
Trichlorofluoromethane	7465898		< 0.40	< 0.40	NA	< 0.40	105%	50%	140%	109%	50%	140%	106%	50%	140%	
Acetone	7465898		< 1.0	< 1.0	NA	< 1.0	110%	50%	140%	112%	50%	140%	120%	50%	140%	
1,1-Dichloroethylene	7465898		< 0.30	< 0.30	NA	< 0.30	100%	50%	140%	115%	60%	130%	117%	50%	140%	
Methylene Chloride	7465898		< 0.30	< 0.30	NA	< 0.30	110%	50%	140%	115%	60%	130%	117%	50%	140%	
trans- 1,2-Dichloroethylene	7465898		< 0.20	< 0.20	NA	< 0.20	109%	50%	140%	112%	60%	130%	116%	50%	140%	
Methyl tert-butyl ether	7465898		< 0.20	< 0.20	NA	< 0.20	123%	50%	140%	96%	60%	130%	119%	50%	140%	
1,1-Dichloroethane	7465898		< 0.30	< 0.30	NA	< 0.30	128%	50%	140%	113%	60%	130%	125%	50%	140%	



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## Quality Assurance

CLIENT NAME: WSP CANADA INC.

AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

SAMPLED BY: Marco Visentin

### Trace Organics Analysis (Continued)

RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Methyl Ethyl Ketone	7465898		< 1.0	< 1.0	NA	< 1.0	105%	50%	140%	101%	50%	140%	100%	50%	140%	
cis-1,2-Dichloroethylene	7465898		< 0.20	< 0.20	NA	< 0.20	96%	50%	140%	100%	60%	130%	92%	50%	140%	
Chloroform	7465898		< 0.20	< 0.20	NA	< 0.20	106%	50%	140%	101%	60%	130%	103%	50%	140%	
1,2-Dichloroethane	7465898		< 0.20	< 0.20	NA	< 0.20	103%	50%	140%	101%	60%	130%	104%	50%	140%	
1,1,1-Trichloroethane	7465898		< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	109%	60%	130%	107%	50%	140%	
Carbon Tetrachloride	7465898		< 0.20	< 0.20	NA	< 0.20	105%	50%	140%	106%	60%	130%	114%	50%	140%	
Benzene	7465898		< 0.20	< 0.20	NA	< 0.20	98%	50%	140%	90%	60%	130%	90%	50%	140%	
1,2-Dichloropropane	7465898		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	96%	60%	130%	81%	50%	140%	
Trichloroethylene	7465898		< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	104%	60%	130%	92%	50%	140%	
Bromodichloromethane	7465898		< 0.20	< 0.20	NA	< 0.20	103%	50%	140%	99%	60%	130%	93%	50%	140%	
Methyl Isobutyl Ketone	7465898		< 1.0	< 1.0	NA	< 1.0	101%	50%	140%	103%	50%	140%	92%	50%	140%	
1,1,2-Trichloroethane	7465898		< 0.20	< 0.20	NA	< 0.20	114%	50%	140%	115%	60%	130%	109%	50%	140%	
Toluene	7465898		< 0.20	< 0.20	NA	< 0.20	126%	50%	140%	101%	60%	130%	110%	50%	140%	
Dibromochloromethane	7465898		< 0.10	< 0.10	NA	< 0.10	118%	50%	140%	110%	60%	130%	106%	50%	140%	
Ethylene Dibromide	7465898		< 0.10	< 0.10	NA	< 0.10	114%	50%	140%	90%	60%	130%	108%	50%	140%	
Tetrachloroethylene	7465898		< 0.20	< 0.20	NA	< 0.20	119%	50%	140%	108%	60%	130%	121%	50%	140%	
1,1,1,2-Tetrachloroethane	7465898		< 0.10	< 0.10	NA	< 0.10	125%	50%	140%	116%	60%	130%	109%	50%	140%	
Chlorobenzene	7465898		< 0.10	< 0.10	NA	< 0.10	107%	50%	140%	102%	60%	130%	96%	50%	140%	
Ethylbenzene	7465898		< 0.10	< 0.10	NA	< 0.10	97%	50%	140%	94%	60%	130%	87%	50%	140%	
m & p-Xylene	7465898		< 0.20	< 0.20	NA	< 0.20	102%	50%	140%	99%	60%	130%	94%	50%	140%	
Bromoform	7465898		< 0.10	< 0.10	NA	< 0.10	117%	50%	140%	108%	60%	130%	115%	50%	140%	
Styrene	7465898		< 0.10	< 0.10	NA	< 0.10	82%	50%	140%	85%	60%	130%	78%	50%	140%	
1,1,2,2-Tetrachloroethane	7465898		< 0.10	< 0.10	NA	< 0.10	106%	50%	140%	105%	60%	130%	105%	50%	140%	
o-Xylene	7465898		< 0.10	< 0.10	NA	< 0.10	105%	50%	140%	101%	60%	130%	92%	50%	140%	
1,3-Dichlorobenzene	7465898		< 0.10	< 0.10	NA	< 0.10	88%	50%	140%	87%	60%	130%	75%	50%	140%	
1,4-Dichlorobenzene	7465898		< 0.10	< 0.10	NA	< 0.10	88%	50%	140%	85%	60%	130%	85%	50%	140%	
1,2-Dichlorobenzene	7465898		< 0.10	< 0.10	NA	< 0.10	82%	50%	140%	87%	60%	130%	75%	50%	140%	
1,3-Dichloropropene	7465898		< 0.30	< 0.30	NA	< 0.30	102%	50%	140%	87%	60%	130%	86%	50%	140%	
n-Hexane	7465898		< 0.20	< 0.20	NA	< 0.20	99%	50%	140%	95%	60%	130%	103%	50%	140%	
<b>O. Reg. 153(511) - PHCs F1 - F4 (with PAHs) (Water)</b>																
F1 (C6 to C10)	7464814		< 25	< 25	NA	< 25	76%	60%	140%	88%	60%	140%	102%	60%	140%	
F2 (C10 to C16)		TW	< 100	< 100	NA	< 100	92%	60%	140%	72%	60%	140%	79%	60%	140%	
F3 (C16 to C34)		TW	< 100	< 100	NA	< 100	98%	60%	140%	92%	60%	140%	71%	60%	140%	
F4 (C34 to C50)		TW	< 100	< 100	NA	< 100	91%	60%	140%	91%	60%	140%	79%	60%	140%	
<b>O. Reg. 153(511) - PAHs (Water)</b>																
Naphthalene		TW	< 0.20	< 0.20	NA	< 0.20	113%	50%	140%	78%	50%	140%	71%	50%	140%	
Acenaphthylene		TW	< 0.20	< 0.20	NA	< 0.20	97%	50%	140%	85%	50%	140%	77%	50%	140%	
Acenaphthene		TW	< 0.20	< 0.20	NA	< 0.20	104%	50%	140%	80%	50%	140%	74%	50%	140%	
Fluorene		TW	< 0.20	< 0.20	NA	< 0.20	100%	50%	140%	87%	50%	140%	82%	50%	140%	



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## Quality Assurance

CLIENT NAME: WSP CANADA INC.

AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

SAMPLED BY: Marco Visentin

### Trace Organics Analysis (Continued)

RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	
Phenanthrene	TW		< 0.10	< 0.10	NA	< 0.10	98%	50%	140%	86%	50%	140%	82%	50%	140%	
Anthracene	TW		< 0.10	< 0.10	NA	< 0.10	94%	50%	140%	89%	50%	140%	80%	50%	140%	
Fluoranthene	TW		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	92%	50%	140%	90%	50%	140%	
Pyrene	TW		< 0.20	< 0.20	NA	< 0.20	93%	50%	140%	93%	50%	140%	89%	50%	140%	
Benz(a)anthracene	TW		< 0.20	< 0.20	NA	< 0.20	75%	50%	140%	83%	50%	140%	86%	50%	140%	
Chrysene	TW		< 0.10	< 0.10	NA	< 0.10	85%	50%	140%	78%	50%	140%	81%	50%	140%	
Benzo(b)fluoranthene	TW		< 0.10	< 0.10	NA	< 0.10	96%	50%	140%	107%	50%	140%	112%	50%	140%	
Benzo(k)fluoranthene	TW		< 0.10	< 0.10	NA	< 0.10	109%	50%	140%	103%	50%	140%	108%	50%	140%	
Benzo(a)pyrene	TW		< 0.01	< 0.01	NA	< 0.01	87%	50%	140%	99%	50%	140%	93%	50%	140%	
Indeno(1,2,3-cd)pyrene	TW		< 0.20	< 0.20	NA	< 0.20	67%	50%	140%	78%	50%	140%	92%	50%	140%	
Dibenz(a,h)anthracene	TW		< 0.20	< 0.20	NA	< 0.20	64%	50%	140%	74%	50%	140%	83%	50%	140%	
Benzo(g,h,i)perylene	TW		< 0.20	< 0.20	NA	< 0.20	91%	50%	140%	84%	50%	140%	90%	50%	140%	
2-and 1-methyl Naphthalene	TW		< 0.20	< 0.20	NA	< 0.20	114%	50%	140%	84%	50%	140%	90%	50%	140%	

Comments: Tap water analysis has been performed as QC sample testing for duplicate and matrix spike due to insufficient sample volume.

When the average of the sample and duplicate results is less than 5x the RDL, the Relative Percent Difference (RPD) will be indicated as Not Applicable (NA).

Certified By:



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## Quality Assurance

CLIENT NAME: WSP CANADA INC.

AGAT WORK ORDER: 16T080859

PROJECT: 151-62850-00

ATTENTION TO: Tijana Medencevic

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

SAMPLED BY: Marco Visentin

### Water Analysis

RPT Date: Apr 04, 2016			DUPLICATE			Method Blank	REFERENCE MATERIAL			METHOD BLANK SPIKE			MATRIX SPIKE			
PARAMETER	Batch	Sample Id	Dup #1	Dup #2	RPD		Measured Value	Acceptable Limits		Recovery	Acceptable Limits		Recovery	Acceptable Limits		
								Lower	Upper		Lower	Upper		Lower	Upper	

#### O. Reg. 153(511) - Metals & Inorganics (Water)

Antimony	7464211	7464211	<1.0	<1.0	NA	< 1.0	104%	70%	130%	100%	80%	120%	107%	70%	130%
Arsenic	7464211	7464211	<1.0	<1.0	NA	< 1.0	103%	70%	130%	99%	80%	120%	111%	70%	130%
Barium	7464211	7464211	14.9	14.7	1.4%	< 2.0	98%	70%	130%	96%	80%	120%	96%	70%	130%
Beryllium	7464211	7464211	<0.5	<0.5	NA	< 0.5	102%	70%	130%	98%	80%	120%	97%	70%	130%
Boron	7464211	7464211	16.7	16.8	NA	< 10.0	97%	70%	130%	99%	80%	120%	88%	70%	130%
Cadmium	7464211	7464211	<0.2	<0.2	NA	< 0.2	106%	70%	130%	101%	80%	120%	107%	70%	130%
Chromium	7464211	7464211	<2.0	<2.0	NA	< 2.0	99%	70%	130%	100%	80%	120%	95%	70%	130%
Cobalt	7464211	7464211	<0.5	<0.5	NA	< 0.5	105%	70%	130%	103%	80%	120%	97%	70%	130%
Copper	7464211	7464211	1.3	2.0	NA	< 1.0	104%	70%	130%	103%	80%	120%	90%	70%	130%
Lead	7464211	7464211	<0.5	<0.5	NA	< 0.5	102%	70%	130%	100%	80%	120%	92%	70%	130%
Molybdenum	7464211	7464211	<0.5	<0.5	NA	< 0.5	99%	70%	130%	95%	80%	120%	108%	70%	130%
Nickel	7464211	7464211	<1.0	<1.0	NA	< 1.0	108%	70%	130%	106%	80%	120%	95%	70%	130%
Selenium	7464211	7464211	<1.0	<1.0	NA	< 1.0	109%	70%	130%	104%	80%	120%	116%	70%	130%
Silver	7464211	7464211	<0.2	<0.2	NA	< 0.2	107%	70%	130%	108%	80%	120%	103%	70%	130%
Thallium	7464211	7464211	<0.3	<0.3	NA	< 0.3	108%	70%	130%	104%	80%	120%	98%	70%	130%
Uranium	7464211	7464211	0.6	0.6	NA	< 0.5	102%	70%	130%	97%	80%	120%	96%	70%	130%
Vanadium	7464211	7464211	<0.4	<0.4	NA	< 0.4	100%	70%	130%	99%	80%	120%	100%	70%	130%
Zinc	7464211	7464211	<5.0	<5.0	NA	< 5.0	104%	70%	130%	101%	80%	120%	98%	70%	130%
Mercury	7464211	7464211	<0.02	<0.02	NA	< 0.02	99%	70%	130%	97%	80%	120%	96%	70%	130%
Chromium VI	7466888		<5	<5	NA	< 5	100%	70%	130%	98%	80%	120%	99%	70%	130%
Cyanide	7464211	7464211	<2	<2	NA	< 2	86%	70%	130%	98%	80%	120%	112%	70%	130%
Sodium	7462538		6080	6100	0.3%	< 500	98%	70%	130%	96%	80%	120%	96%	70%	130%
Chloride	7465459		24800	25000	0.8%	< 100	93%	70%	130%	106%	70%	130%	100%	70%	130%
Electrical Conductivity	7463883		899	899	0.0%	< 2	104%	90%	110%	NA			NA		
pH	7463883		7.77	7.80	0.4%	NA	100%	90%	110%	NA			NA		

Comments: NA signifies Not Applicable.

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

**Certified By:**



**AGAT**

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## Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Soil Analysis</b>			
Antimony	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Barium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Boron (Hot Water Soluble)	MET-93-6104	EPA SW 846 6010C; MSA, Part 3, Ch.21	ICP/OES
Cadmium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Copper	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Lead	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Nickel	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Selenium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Silver	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Thallium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Uranium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Zinc	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Chromium VI	INOR-93-6029	SM 3500 B; MSA Part 3, Ch. 25	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE CN-3015 & E 3009 A;SM 4500 CN	TECHNICON AUTO ANALYZER
Mercury	MET-93-6103	EPA SW-846 3050B & 6020A	ICP-MS
Electrical Conductivity	INOR-93-6036	McKeague 4.12, SM 2510 B	EC METER
Sodium Adsorption Ratio	INOR-93-6007	McKeague 4.12 & 3.26 & EPA SW-846 6010B	ICP/OES
pH, 2:1 CaCl <sub>2</sub> Extraction	INOR-93-6031	MSA part 3 & SM 4500-H+ B	PH METER



## Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Trace Organics Analysis</b>			
Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Acenaphthylene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Acenaphthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Fluorene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Phenanthrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benz(a)anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Chrysene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(b)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(k)fluoranthene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(a)pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Dibenz(a,h)anthracene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Benzo(g,h,i)perylene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Moisture Content	ORG-91-5106	EPA SW-846 3541 & 8270	BALANCE
Chrysene-d12	ORG-91-5106	EPA SW846 3541 & 8270	GC/MS
Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Acenaphthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluorene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Phenanthrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benz(a)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(b)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(k)fluoranthene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(a)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Indeno(1,2,3-cd)pyrene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Dibenz(a,h)anthracene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzo(g,h,i)perylene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
2-and 1-methyl Naphthalene	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Chrysene-d12	ORG-91-5105	EPA SW-846 3510 & 8270	GC/MS
Benzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Toluene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Ethylbenzene	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
Xylene Mixture	VOL-91-5009	EPA SW-846 5035 & 8260	P & T GC/MS
F1 (C6 to C10)	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5009	CCME Tier 1 Method	P & T GC/FID
F2 (C10 to C16)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F3 (C16 to C34)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
F4 (C34 to C50)	VOL-91-5009	CCME Tier 1 Method, EPA SW846 8015	GC / FID
Gravimetric Heavy Hydrocarbons	VOL-91-5009	CCME Tier 1 Method	BALANCE



## Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
Moisture Content	VOL-91-5009	CCME Tier 1 Method	BALANCE
Terphenyl	VOL-91-5009		GC/FID
F1 (C6 to C10)	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F1 (C6 to C10) minus BTEX	VOL-91-5010	MOE PHC E3421	(P&T)GC/FID
F2 (C10 to C16)	VOL-91-5010	MOE PHC E3421	GC/FID
F2 (C10 to C16) minus Naphthalene	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34)	VOL-91-5010	MOE PHC E3421	GC/FID
F3 (C16 to C34) minus PAHs	VOL-91-5010	MOE PHC E3421	GC/FID
F4 (C34 to C50)	VOL -91- 5010	MOE PHC- E3421	GC/FID
Gravimetric Heavy Hydrocarbons	VOL-91-5010	MOE PHC E3421	BALANCE
Terphenyl	VOL-91-5010		GC/FID
Dichlorodifluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Acetone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trans- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl tert-butyl Ether	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Cis- 1,2-Dichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Benzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Styrene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS



**AGAT**

Laboratories

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CANADA L4Z 1Y2  
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## Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
n-Hexane	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5002	EPA SW-846 5035 & 8260	(P&T)GC/MS
Moisture Content		MOE E3139	BALANCE
Dichlorodifluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Vinyl Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromomethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichlorofluoromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Acetone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methylene Chloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
trans- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl tert-butyl ether	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl Ethyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
cis- 1,2-Dichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chloroform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1-Trichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Carbon Tetrachloride	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Benzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichloropropane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Trichloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromodichloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Methyl Isobutyl Ketone	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,2-Trichloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Toluene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Dibromochloromethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Ethylene Dibromide	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Tetrachloroethylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,1,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Chlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Ethylbenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
m & p-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Bromoform	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Styrene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,1,2,2-Tetrachloroethane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
o-Xylene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,4-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,2-Dichlorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
1,3-Dichloropropene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Xylene Mixture	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
n-Hexane	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
Toluene-d8	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS
4-Bromofluorobenzene	VOL-91-5001	EPA SW-846 5030 & 8260	(P&T)GC/MS



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## Method Summary

CLIENT NAME: WSP CANADA INC.

PROJECT: 151-62850-00

SAMPLING SITE: 208 Lakeshore Road, Blue Mountains, ON

AGAT WORK ORDER: 16T080859

ATTENTION TO: Tijana Medencevic

SAMPLED BY: Marco Visentin

PARAMETER	AGAT S.O.P	LITERATURE REFERENCE	ANALYTICAL TECHNIQUE
<b>Water Analysis</b>			
Antimony	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Arsenic	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Barium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Beryllium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Boron	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cadmium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Chromium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Cobalt	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Copper	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Lead	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Molybdenum	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Nickel	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Selenium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Silver	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Thallium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Uranium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Vanadium	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Zinc	MET-93-6103	EPA SW-846 6020A & 200.8	ICP-MS
Mercury	MET-93-6100	EPA SW-846 7470 & 245.1	CVAAS
Chromium VI	INOR-93-6034	SM 3500-Cr B	SPECTROPHOTOMETER
Cyanide	INOR-93-6052	MOE METHOD CN- 3015 & SM 4500 CN- I	TECHNICON AUTO ANALYZER
Sodium	MET-93-6105	EPA SW-846 6010C & 200.7	ICP/OES
Chloride	INOR-93-6004	SM 4110 B	ION CHROMATOGRAPH
Electrical Conductivity	INOR-93-6000	SM 2510 B	PC TITRATE
pH	INOR-93-6000	SM 4500-H+ B	PC TITRATE