Phase II Environmental Site Assessment
225 Huntmar Drive, Ottawa, Ontario

Enterprise Holdings Inc.
2300 Stevenage Drive
Ottawa, Ontario
K1G 3W3

April 2016

FINAL REPORT

DST File No.: TS-SO-022154

DST Consulting Engineers Inc.

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EXECUTIVE SUMMARY

DST Consulting Engineers Inc. (DST) was retained by Enterprise Holdings Inc. to conduct a Phase II Environmental Site Assessment (ESA) for the property located at 225 Huntmar Drive in Ottawa, Ontario (the "Site"). The purposes of the assessment was to evaluate soil and groundwater conditions at the Site and to assess the potential environmental concerns identified in the Phase I ESA completed by DST in October 2015.

The Phase II ESA was performed in accordance with professional standards and procedures, which generally reflect the guidance provided under Ontario Regulation (O. Reg.) 153/04 Records of Site Condition, as amended; however, the assessment were completed strictly for the purpose of environmental due diligence and is not intended to be utilized as supporting documentation for the filing of a Record of Site Condition in accordance with O. Reg. 153/04 (as amended).

The Site consists of the western portion of the property located at 225 Huntmar Drive in Ottawa, Ontario. It is comprised of a rectangular-shaped parcel of vacant land that covers approximately 3,250 m^2. A commercial building (car rental service) is proposed to be constructed on Site.

The field program of the Phase II ESA consisted of the following activities:

- The advancement of three boreholes (BHMW16-2, BHMW16-3 and BHMW16-6) instrumented with groundwater monitoring wells at strategic locations within the Site; and,
- The collection of soil samples and groundwater samples for laboratory analysis of petroleum hydrocarbon fractions F1 – F4 (PHCs F1 – F4) and volatile organic compounds (VOCs).

Soil and groundwater analytical results were compared against applicable provincial standards, as set out in the following document:

- Ontario Ministry of the Environment and Climate Change (MOECC) "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011. Table 3: Full Depth Generic Site Condition Standards for soil in a Non-Potable Groundwater Condition. Industrial/Commercial/Community Property Use for soil, and All Types of Property Use for groundwater (Coarse textured soils).

The analytical results of all the laboratory-submitted soil and groundwater samples met the applicable MOECC Table 3 standards for PHCs F1 – F4 and VOCs.

Based on the results of the Phase II ESA, no further environmental investigation is required at the Site at this time.

The installed monitoring wells should be abandoned within 180 days of their installation date, in accordance with Ontario Water Resource Act, Regulation 903 – Wells.

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APPENDICES

1. INTRODUCTION

1.1 General

DST Consulting Engineers Inc. (DST) was retained by Enterprise Holdings Inc. to conduct a Phase II Environmental Site Assessment (ESA) for the property located at 225 Huntmar Drive in Ottawa, Ontario (herein referred to as the "Site"). A Site Location Map is included in Appendix A, as Figure 1. The purpose of this assessment was to evaluate soil and groundwater conditions at the Site further to a Phase I ESA completed at the Site by DST in October 2015.

The Phase II ESA was performed in accordance with professional standards and procedures, which generally reflect the guidance provided under Ontario Regulation (O. Reg.) 153/04 Records of Site Condition (as amended); however, the assessment was completed strictly for the purpose of environmental due diligence and is not intended to be utilized as supporting documentation for the filing of a Record of Site Condition in accordance with O. Reg. 153/04 (as amended).

A geotechnical investigation was completed at the Site by DST, in conjunction with this Phase II ESA. The results of the geotechnical investigation are documented in a separate report, titled "Geotechnical Investigation – 225 Huntmar Drive, Ottawa, Ontario", dated April 2016, and prepared for Enterprise Holdings Inc. (DST File No.: TS-SO-022154).

1.2 Site Description

The Site consists of the western portion of the property located at 225 Huntmar Drive in Ottawa, Ontario, and is zoned as GM – General Mixed Use Zone. The legal description of the Site is Concession 1 of Township Part 1 Lot 2 RP4R21121 Part 1, with Property Identification Number (PIN) 044870999. The Site is comprised of a rectangular-shaped parcel of vacant land that covers approximately 3,250 m^2, and is surrounded by the following:

- North: Palladium Drive, followed by the Canadian Tire Centre and associated parking lots and vacant land to the northeast;
- West: Palladium Drive and various car dealerships, as well as a private access road to the City of Ottawa Police Service property;
- South: City of Ottawa Police Service; and,
- East: Eastern portion of the property (Esso gasoline station), followed by Huntmar Drive and the Canadian Tire Centre parking lot.

1.3 Current and Proposed Future Uses

The Site is currently vacant and unoccupied. A commercial building (car rental service) is proposed to be constructed on Site.

1.4 Site Condition Standards

Based on Site conditions, the following Site Conditions Standards were considered applicable to the Site:

SOIL:

- Ontario Ministry of the Environment and Climate Change (MOECC) "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15 2011. Table 3: Full Depth Generic Site Condition Standards for soil in a Non-Potable Groundwater Condition. Industrial/Commercial/Community Property Use, Coarse Textured Soils.

GROUNDWATER:

- MOECC "Soil, Groundwater and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", April 15, 2011. Table 3: Full Depth Generic Site Condition Standards for groundwater in a Non-Potable Groundwater Condition. All Types of Property Use, Coarse Textured Soils.

The rationale for the selection of the above-referenced Site Condition Standards was as follows:

- The Site and surrounding properties are supplied with potable water through the City of Ottawa's municipal drinking water system, which is not derived from groundwater sources;
- The proposed future land use for the Site is a commercial land use (car rental service);
- A coarse grained soil texture was selected for comparison of analytical data to applicable provincial standards as this represents the 'worst-case' scenario;
- No shallow bedrock conditions were encountered during the investigation;
- The sub-surface soil at the Site does not have a pH value less than 5 or greater than 11 (refer to Table D-1 in Appendix D); and,
- The Site is located further than 30 metres from the nearest surface water body, which is the Carp River, located approximately 900 m northeast of the Site.

2. BACKGROUND INFORMATION

A Phase I ESA was completed at the Site in October 2015, by DST. Based on the findings of the Phase I ESA, the following potential environmental concerns were identified at the Site:

Potential Environmental Concerns (DST Phase I ESA, October 2015)

Potential Environmental Concern	Contaminants of Potential Concern (COPCs)
Potential petroleum hydrocarbon related contamination in soil and groundwater due to presence of a gasoline service station and a car wash on the property immediately east of the Site.	Petroleum hydrocarbons (PHCs) and Volatile Organic Compounds (VOCs)

A Phase II ESA was recommended to be conducted at the Site by DST in order to evaluate the above-listed potential environmental concerns.

3. SCOPE OF THE INVESTIGATION

The Phase II ESA scope of work consisted of the following activities:

- Obtaining underground utility clearances and locates;
- The advancement of three boreholes (BHMW16-2, BHMW16-3 and BHMW16-6) instrumented with groundwater monitoring wells at strategic locations within the Site (a total of eight boreholes were drilled as part of the geotechnical investigation; three of the boreholes were selected for environmental assessment purposes);
- The collection of soil samples for laboratory analysis of petroleum hydrocarbon fractions F1 – F4 (PHCs F1 – F4) and volatile organic compounds (VOCs);
- The collection of three groundwater samples, one from each of the installed monitoring wells, for laboratory analysis of PHCs F1 – F4 and VOCs; and,
- The preparation of a report summarizing the results and findings of the Phase II ESA.

4. INVESTIGATION METHOD

4.1 Drilling

The drilling program took place between March 4th, 7th, 8th and 9th, 2016, and consisted of the advancement of three boreholes (BHMW16-2, BHMW16-3 and BHMW16-6) instrumented with groundwater monitoring wells at strategic locations within the Site. The boreholes were positioned to capture any potential soil or groundwater contamination resulting from the gas station and/or car wash located on the adjacent property to the east. The boreholes were advanced by CCC Geotechnical and Environmental Drilling Ltd. (CCC), under the supervision of DST field personnel. The boreholes were advanced using a truck-mounted CME 750 drill rig, to approximate depths of 5.2 metres below ground surface (mbgs) (BHMW16-2) and 6.0 mbgs (BHMW16-3 and BHMW16-6). The drill rig was equipped with a split spoon sampling device, which allowed for continuous sampling of overburden soils. Representative soil samples were collected in intervals of approximately 0.6 m. It should be noted that boreholes BHMW16-3 and BHMW16-6 were advanced to deeper depths (approximately 10.4 mbgs) for geotechnical purposes; however, soil sampling for environmental purposes was conducted for approximately the first 6.0 metres only. Following the termination of the boreholes for geotechnical purposes, the holes were backfilled with soil cuttings and bentonite chips up to approximately 6.0 mbgs for the installation of monitoring wells.

A Site Plan illustrating the borehole / monitoring well locations is in Appendix A, as Figure 2. Photographs are included in Appendix B.

4.2 Subsurface Conditions and Soil Sampling

Soil samples were collected from the boreholes using a split spoon sampling device. Soil samples were placed directly into laboratory-supplied sample jars and vials. The sample jars were filled completely with soil to reduce the amount of headspace vapour within the jars. Samples to be submitted for laboratory analysis of PHC F2 – F4 were placed in unpreserved 120 mL clear glass jars with Teflon lids, while samples to be submitted to the laboratory for analysis of volatile compounds (PHC F1 and VOCs) were collected using disposable soil plug sample collectors supplied by the laboratory. The soil plugs were placed in laboratory-supplied vials charged with measured volumes of methanol for sample preservation.

Soil samples were logged in the field for texture, odour, moisture and visual appearance (staining). The borehole logs are provided in Appendix C.

4.3 Field Screening Methods

Where sample recovery was sufficient, a portion of each collected soil sample from the advanced boreholes was placed in a polyethylene bag and was allowed to equilibrate in a warm environment prior to being screened for combustible vapour concentrations (CVCs). CVCs of soil samples were measured using an RKI Eagle™ portable vapour meter equipped with a catalytic combustible gas detector (CCGD), with a detection limit of 5 parts per million (ppm). The vapour meter was operated in methane elimination mode and was calibrated by DST field personnel prior to use on each day.

Based on visual and olfactory observations, CVC measurements, and the position of the collected soil samples with respect to the inferred groundwater table, two soil samples were submitted for laboratory analysis of PHCs F1 – F4 and VOCs. CVCs of the collected soil samples, as measured by the vapour meter, are provided in the borehole logs in Appendix C. Soil sample locations and analyses are presented in Table 4-1.

Table 4-1: Summary of Soil Samples Submitted for Laboratory Analysis

Sampling Date (d/m/y)	Sample ID/Location	Sample Depth (mbgs)	Laboratory Analyses
9/3/2016	BHMW16-2 SS7	4.6 – 5.2	PHCs F1 – F4, VOCs,
7/3/2016	BHMW16-6 SS8	5.3 – 5.9	PHCs F1 – F4, VOCs

4.4 Monitoring Well Installation

Monitoring wells were installed by CCC within the advanced boreholes using the same drilling equipment described in Section 4.1. The wells were constructed of a 50 mm diameter polyvinyl chloride (PVC) pipe and a #10 slotted PVC well screen (approximately 3 m in length) placed to intercept the inferred groundwater table. A sand-pack consisting of clean silica sand was placed within the annular space surrounding the screened section of the wells, and bentonite chips were added from the top of the sand layer to within approximately 0.3 m of the surface to minimize the potential for cross-contamination between aquifers. A PVC cap was placed at the top of each well pipe and a protective steel monument casing (stick-up) was cemented at surface to protect the well. Refer to the borehole logs in Appendix C for the monitoring well installation details.

Following monitoring well installation activities, the wells were equipped with dedicated Waterra™ tubing (approximately 1.25 cm in diameter) and inertial lift foot valves for well development purposes. The monitoring wells were developed to remove any groundwater impacted by drilling activities and to reduce the amount of sediment within the wells.

4.5 Groundwater Level Measurements

DST field personnel collected groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The water levels were measured using a Solinst Canada Ltd. Model 122 oil/water interface meter which is also used to confirm the presence/absence and thickness of free (petroleum) product that may potentially be residing on the surface of the groundwater table. The electronic interface probe was decontaminated (washed with phosphorous-free soap and rinsed with distilled water) prior to the collection of each groundwater level measurement.

4.6 Groundwater Sampling

Due to the amount of sediment within the monitoring wells, groundwater samples were collected from the wells by means of a low flow purging methodology, utilizing a peristaltic (suction) pump, on March 11, 2016. The low-flow purging technique was used to collect representative samples of the groundwater in the formation adjacent to the well screen without any undue disturbance of the well sediment. In order to confirm that a representative groundwater sample was collected,

field measurements of several physical and chemical parameters were conducted during the purging, using a Horiba U-52 water quality meter. Parameters measured on a continuous basis included: temperature, conductivity, pH, dissolved oxygen (DO), turbidity and oxidation-reduction potential (ORP). The methodology consisted of achieving three consecutive stabilized readings for the measured parameters, then collecting a representative groundwater sample.

Following the stabilization of water quality parameters, laboratory-supplied containers for semi- and non-volatile compounds (PHC F2 – F4) were filled with the groundwater samples using the peristaltic pump used for the low flow purging. The remainder of the groundwater samples (PHC F1 and VOCs) were collected using new, dedicated Waterra™ tubing equipped with an inertial lift foot valve, as the use of a suction pump is not recommended for the sampling of volatile compounds in groundwater since it can induce a loss in volatile compounds (EPA/540/P-87/001, 1987).

Groundwater samples to be submitted for laboratory analysis of semi- and non-volatile compounds (PHC F2 – F4) were collected in 250 mL amber glass bottles preserved with sodium bisulphate, while samples to be submitted for laboratory analysis of volatile compounds (PHC F1 and VOCs) were collected in 40 mL clear glass vials also preserved with sodium bisulphate. Groundwater sample locations and analyses are presented in Table 4-2.

Table 4-2: Summary of Groundwater Samples Submitted for Laboratory Analysis

Sampling Date (d/m/y)	Sample ID/Location	Laboratory Analyses
11/3/2016	BHMW16-2	PHCs F1 – F4, VOCs
11/3/2016	BHMW16-3	PHCs F1 – F4, VOCs
11/3/2016	BHMW16-6	PHCs F1 – F4, VOCs

4.7 Analytical Testing

Soil and groundwater samples were submitted to Maxxam Analytics Inc. (Maxxam), of Ottawa, ON, for chemical analysis. Maxxam is a Standards Council of Canada (SCC) accredited laboratory in Ottawa.

4.8 Residue Maintenance

All soil cuttings resulting from drilling activities, purge water resulting from well development and purging activities, and fluids resulting from equipment decontamination were appropriately contained and secured on Site. Proper disposal is to be coordinated at a later date.

4.9 Quality Assurance / Quality Control

DST maintains a standard Quality Assurance / Quality Control (QA/QC) program for environmental assessments. The field sampling and QA/QC program was completed in accordance with the applicable Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario (MOECC, 1996). All project documentation was maintained and

controlled by the appointed field supervisor. All borehole advancement and soil and groundwater sampling was completed in accordance with industry standards, and applicable provincial standards/guidelines.

Collected soil and groundwater samples during the investigation were placed in ice-packed coolers. Samples were shipped under a Chain of Custody protocol to a certified laboratory for chemical analysis.

The potential for cross-contamination between samples was minimized by, where applicable, washing sampling tools with phosphorous-free soap and water, followed by rinsing with distilled water, and by wearing new disposable nitrile gloves prior to the handling of each sample.

5. RESULTS AND EVALUATION

5.1 Stratigraphy

Based on the soil data collected, the general soil stratigraphy at the Site is characterized by a layer of topsoil, underlain by silty clay to the extent of the advanced environmental boreholes.

5.2 Groundwater Levels

As noted in Section 4.5, DST field personnel collected groundwater level measurements from the installed monitoring wells prior to groundwater sampling activities. The groundwater levels are provided in Table 5-1 below.

Table 5-1: Groundwater Levels

Monitoring Well ID	Groundwater Depth[(1)] (March 11, 2016)
BHMW16-2	0.42
BHMW16-3	0.64
BHMW16-6	0.71

Note: [(1)] Groundwater depths measured in metres below ground surface.

5.3 Field Observations

There was no visual or olfactory evidence of petroleum or other impacts observed in any of the soil samples collected. No sheen, free phase liquid petroleum hydrocarbons, or odours were noted during the drilling or sampling activities.

5.4 Soil Texture

DST did not complete a grain size analysis on soil samples collected during the investigation. As noted in Section 1.4, a coarse grained soil texture was selected for comparison of analytical data to applicable provincial standards as it represents the 'worst-case' scenario.

5.5 Soil Quality

Analytical results of the soil samples submitted for laboratory analyses were compared against the applicable MOECC Table 3 standards for industrial/commercial/community property use and coarse textured soils. Based on the laboratory analytical results, the laboratory-submitted soil samples were in compliance with the applicable MOECC Table 3 standards for PHCs F1 – F4 and VOCs. Concentrations of all analyzed parameters were below the laboratory reportable detection limits (RDLs).

Refer to Tables D-1 and D-2 in Appendix D for the soil analytical results. The laboratory certificates of analysis are provided in Appendix E.

5.6 Groundwater Quality

Analytical results of the groundwater samples submitted for laboratory analyses were compared against the applicable MOECC Table 3 standards for all types of property use and coarse textured soils. Based on the laboratory analytical results, all three groundwater samples were found to be in compliance with the applicable MOECC Table 3 standards for PHCs F1 – F4 and VOCs. Concentrations of all analyzed parameters were below the laboratory RDLs.

Refer to Tables D-3 and D-4 in Appendix D for the groundwater analytical results. The laboratory certificates of analysis are provided in Appendix E.

6. CONCLUSIONS AND RECOMMENDATIONS

DST conducted a Phase II ESA to evaluate soil and groundwater conditions at the Site and to assess the potential environmental concerns identified in the Phase I ESA completed by DST in October 2015.

The field program of the Phase II ESA consisted of the advancement of three boreholes instrumented with groundwater monitoring wells at strategic locations within the Site.

A total of two soil samples and three groundwater samples collected during the investigation were submitted for laboratory analysis of PHCs F1 – F4 and VOCs. Soil and groundwater analytical results indicated that the laboratory-submitted samples met the applicable MOECC Table 3 standards for PHCs F1 – F4 and VOCs.

Based on the results of the Phase II ESA, no further environmental investigation is required at the Site at this time.

The installed monitoring wells should be abandoned within 180 days of their installation date, in accordance with Ontario Water Resource Act, Regulation 903 – Wells.

7. CLOSURE

This report was prepared for the exclusive use of Enterprise Holdings Inc. Any use of this report by any third party, or any reliance on or decisions to be made based on it, are the responsibility of such parties. DST accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We trust the information herein meets your present requirements. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

For **DST Consulting Engineers Inc.**

Salim Eid, EIT
Project Manager

Andrew Naoum, P.Eng.
Regional Manager, Jr. Associate

8. REFERENCES

DST Consulting Engineers Inc. October 2015. *Phase I Environmental Site Assessment – 225 Huntmar Drive, Ottawa, Ontario.* DST File No.: TS-SO-022154.

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

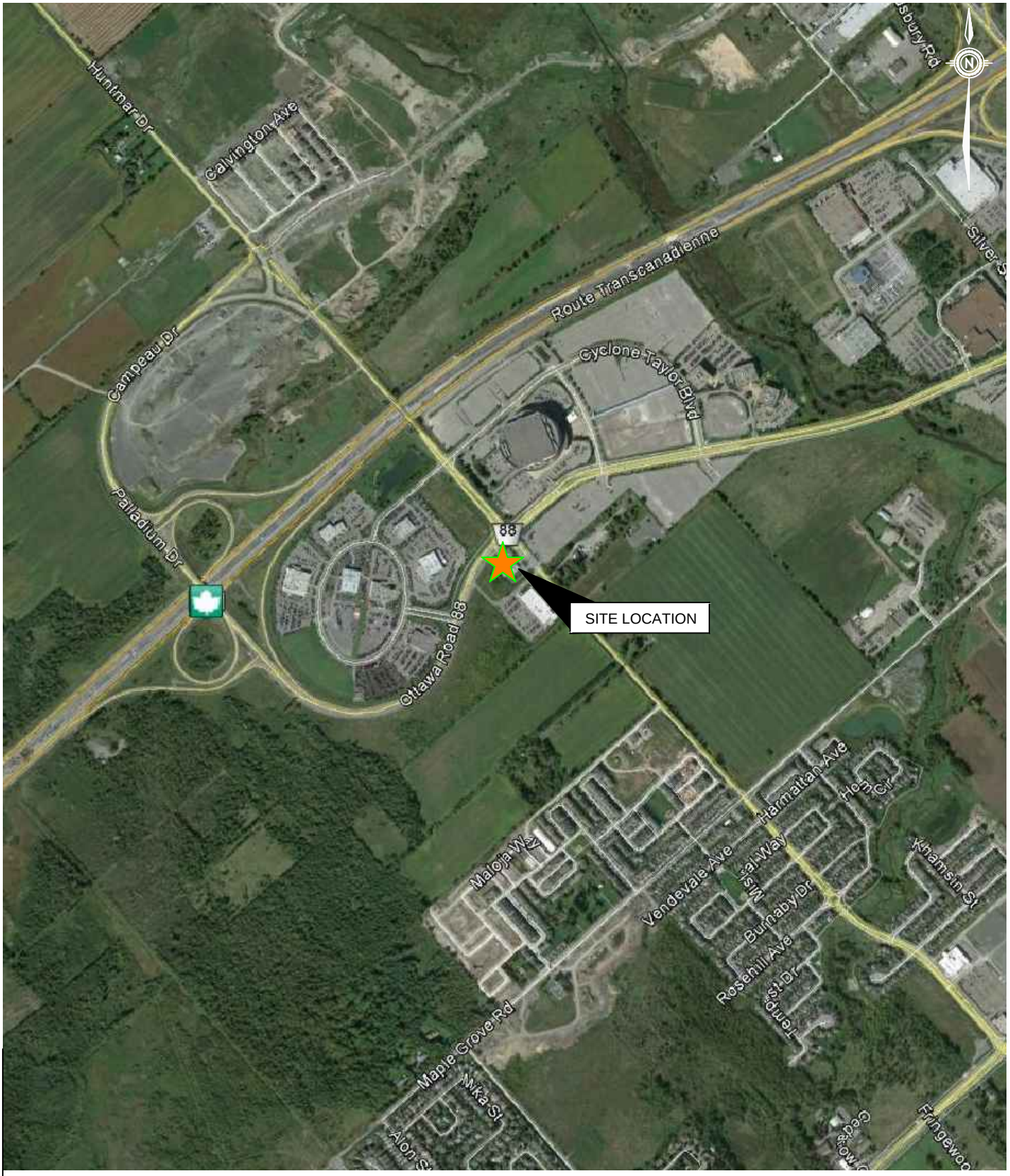
Ontario Ministry of the Environment and Climate Change, 2011. *Soil, Ground Water and Sediment Standards for Use Under Part XV.I of the Environmental Protection Act*.

Ontario Ministry of the Environment and Climate Change, as amended January 2014. *Ontario Resources Act R.R.O. 1990, Regulation 903 – Wells.*

US Environmental Protection Agency, December 1987. *A Compendium of Superfund Field Operations Methods, EPA/540/P-87/001.*

APPENDIX A

Figures



SOURCES:
1. GOOGLE EARTH © 2016 GOOGLE

NOTE:
1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE ASSOCIATED TECHNICAL REPORT.

APPROXIMATE SCALE
0 175 350 700m

REV	DATE	ISSUE	APPROVAL
0	05/04/16	ORIGINAL	A.N.

DRAWN BY: R.P.	DATE: April 2016
PROJECT MANAGER: K.S.	PROJECT NO.: TS-SO-022154
FIGURE No.: FIGURE 1	

PROJECT TITLE
PHASE II ENVIRONMENTAL SITE ASSESSMENT
225 HUNTMAR DRIVE, OTTAWA, ONTARIO

DRAWING TITLE
SITE LOCATION MAP

DST
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APPROXIMATE SCALE

0 12.5 25 50m

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LEGEND:

- LOCATION OF BOREHOLE / MONITORING WELL
- SITE BOUNDARY FOR PHASE II ESA

REV	DATE	ISSUE	APPROVAL
0	08/04/16	ORIGINAL	A.N.

PROJECT TITLE

PHASE II ENVIRONMENTAL SITE ASSESSMENT - 225 HUNTMAR DRIVE, OTTAWA, ONTARIO

DRAWING TITLE

SITE PLAN

DESIGNED BY: K.S.	SCALE: As Shown
DRAWN BY: R.P.	DATE: April 2016
APPROVED BY: A.N.	PROJECT NO.: TS-SO-022154

FIGURE 2

APPENDIX B

Photographs

Photograph 1: View of the advancement of borehole BHMW16-6, facing southeast (March 8, 2016)

Photograph 2: View of soil sample BHMW16-2 SS7, recovered in split spoon sampling device (March 9, 2016)

Photograph 3: View of soil sample BHMW16-6 SS8, recovered in split spoon sampling device (March 7, 2016)

Photograph 4: View of groundwater sampling at BHMW16-3 (March 11, 2016)

APPENDIX C

Borehole Logs

L O G O F BOREHOLE BHMW 16-2

REF. No.: TS-SO-022154	**DST CONSULTING ENGINEERS INC.**
CLIENT: Enterprise Holdings	METHOD: Hollow Stem Auger
PROJECT: Phase II ESA	DIAMETER: 200 mm
LOCATION: 225 Hunter Drive, Ottawa, Ontario	DATE: March 9, 2016

CVC * ■ % LEL 20 40 60 80 ○ PPM 20 40 60 80	PPM	SAMPLES No.	Type	SPT N-Value	SYMBL	SUBSURFACE PROFILE MATERIAL DESCRIPTION	DPTH m	ELEV m	WATER DATA	REMARKS
						SURFACE				
	ND	SS1		6		TOPSOIL ~ 300 mm CLAY (FILL) - silty, some sand, trace rootlets, seams of dark brown to black topsoil, brown, soft to firm				- 50 mm diamater monitoring well installed as shown
	ND	SS2		2			1.0			- Groundwater level at 0.42 mbgs (March 11, 2016)
	ND	SS3		0			2.0			
						CLAY - silty, brown, stiff to very stiff				
	ND	SS4		0						
	ND	SS5		0			3.0			
	ND	SS6		0		- grey, stiff at 4.1 m	4.0			
	ND	SS7		0			5.0			
						End of Borehole at 5.2 m				

DST consulting engineers

Auger Sample
Split Spoon
Grab Sample

Bentonite & Riser
Sand Pack & Screen

* - Combustible Vapour Concentration
ND - Non-detect (<5 ppm)

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L O G O F BOREHOLE BHMW 16-3

REF. No.: TS-SO-022154	**DST CONSULTING ENGINEERS INC.**
CLIENT: Enterprise Holdings	METHOD: Hollow Stem Auger
PROJECT: Phase II ESA	DIAMETER: 200 mm
LOCATION: 225 Hunter Drive, Ottawa, Ontario	DATE: March 8, 2016

CVC * ■ % LEL 20 40 60 80 ○ PPM 20 40 60 80	PPM	SAMPLES No.	Type	SPT N-Value	SUBSURFACE PROFILE SYMBL	MATERIAL DESCRIPTION	DPTH m	ELEV m	WATER DATA	REMARKS
						SURFACE				
	ND	SS1		6		TOPSOIL ~ 300 mm CLAY (FILL) - silty, some sand, trace gravel and rootlets, seams of dark brown to black topsoil, brown, firm				- 50 mm diameter monitoring well installed as shown
	ND	SS2		5			1.0			- Groundwater level at 0.64 mbgs (March 11, 2016)
	ND	SS3		4		CLAY - silty, brown, very stiff	2.0			
	ND	SS4		6			3.0			
						- grey, firm to stiff at 3.4 m	4.0			
	ND	SS5		0			5.0			
	ND	SS6		0			6.0			
						End of Borehole (for environmental purposes) at 6.0 m.	7.0			
							8.0			
							9.0			
							10.0			
							11.0			

Auger Sample
Split Spoon
Grab Sample

Bentonite & Riser
Sand Pack & Screen

* - Combustible Vapour Concentration
ND - Non-detect (<5 ppm)

GASTECBH TS-SO-022154.GPJ DST_MIN.GDT 4/8/16

L O G O F BOREHOLE BHMW 16-6

REF. No.: TS-SO-022154	**DST CONSULTING ENGINEERS INC.**
CLIENT: Enterprise Holdings	METHOD: Hollow Stem Auger
PROJECT: Phase II ESA	DIAMETER: 200 mm
LOCATION: 225 Hunter Drive, Ottawa, Ontario	DATE: March 7, 2016

CVC * ■ % LEL 20 40 60 80 ○ PPM 20 40 60 80	PPM	SAMPLES No.	Type	SPT N-Value	SYMBL	SUBSURFACE PROFILE MATERIAL DESCRIPTION	DPTH m	ELEV m	WATER DATA	REMARKS
						SURFACE				
	ND	SS1		6		TOPSOIL ~ 300 mm CLAY (FILL) - silty, some sand, rootlets, seams of dark brown to black silty clay, brown, soft to firm				- 50 mm diameter monitoring well installed as shown
	ND	SS2		6			1.0			- Groundwater level at 0.71 mbgs (March 11, 2016)
	ND	SS3		4		CLAY - silty, brown, very stiff	2.0			
	ND	SS4		4			3.0			
	ND	SS5		2		- grey, firm to very stiff at 3.7 m				
	ND	SS6		0			4.0			
	ND	SS7		0			5.0			
	ND	SS8		0			6.0			
						End of Borehole (for environmental purposes) at 6.0 m.	7.0			
							8.0			
							9.0			
							10.0			
							11.0			

Auger Sample
Split Spoon
Grab Sample

Bentonite & Riser
Sand Pack & Screen

* - Combustible Vapour Concentration
ND - Non-detect (<5 ppm)

GASTECBH TS-SO-022154.GPJ DST_MIN.GDT 4/8/16

APPENDIX D

Laboratory Analytical Results

TABLE D-1: SOIL ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS (PHCs) AND pH

Parameters	Standards	Analytical Results (Sample ID / Depth / Sampling Date d/m/y)	
	MOECC Table 3	BHMW16-2 SS7 (4.6-5.2 mbgs) 9/3/2016	BHMW16-6 SS8 (5.3-5.9 mbgs) 7/3/2016
pH	NG	8.01	NA
PHCs			
F1 (C6-C10)	55	<10	<10
F1 (C6-C10) - BTEX	55	<10	<10
F2 (C10-C16)	230	<10	<10
F3 (C16-C34)	1,700	<50	<50
F4 (C34-C50)	3,300	<50	<50
Reached Baseline at C50	NG	YES	YES

Notes:

- All units are expressed in micrograms per gram (µg/g).

MOECC Table 3 - Ontario Ministry of the Environment and Climate Change (MOECC), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", July 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (Industrial/Commercial/Community Property Use). Coarse textured soils.

mbgs - Metres below ground surface

< - Less than laboratory reportable detection limit (value indicated)

NG - No standard available

Value - Sample result exceeds applicable MOECC standards.

TABLE D-2: SOIL ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (VOCs)

Parameters	Standards	Analytical Results (Sample ID / Depth / Sampling Date d/m/y)	
	MOECC Table 3	BHMW16-2 SS7 (4.6-5.2 mbgs) 9/3/2016	BHMW16-6 SS8 (5.3-5.9 mbgs) 7/3/2016
Acetone (2-Propanone)	16	<0.50	<0.50
Benzene	0.32	<0.020	<0.020
Bromodichloromethane	18	<0.050	<0.050
Bromoform	0.61	<0.050	<0.050
Bromomethane	0.05	<0.050	<0.050
Carbon Tetrachloride	0.21	<0.050	<0.050
Chlorobenzene	2.4	<0.050	<0.050
Chloroform	0.47	<0.050	<0.050
Dibromochloromethane	13	<0.050	<0.050
1,2-Dichlorobenzene	6.8	<0.050	<0.050
1,3-Dichlorobenzene	9.6	<0.050	<0.050
1,4-Dichlorobenzene	0.2	<0.050	<0.050
Dichlorodifluoromethane (FREON 12)	16	<0.050	<0.050
1,1-Dichloroethane	17	<0.050	<0.050
1,2-Dichloroethane	0.05	<0.050	<0.050
1,1-Dichloroethylene	0.064	<0.050	<0.050
cis-1,2-Dichloroethylene	55	<0.050	<0.050
trans-1,2-Dichloroethylene	1.3	<0.050	<0.050
1,2-Dichloropropane	0.16	<0.050	<0.050
cis-1,3-Dichloropropene	NG	<0.030	<0.030
trans-1,3-Dichloropropene	NG	<0.040	<0.040
1,3-Dichloropropene (cis+trans)	0.18	<0.050	<0.050
Ethylbenzene	9.5	<0.020	<0.020
Ethylene Dibromide	0.05	<0.050	<0.050
Hexane	46	<0.050	<0.050
Methylene Chloride (Dichloromethane)	1.6	<0.050	<0.050
Methyl Ethyl Ketone (2-Butanone)	70	<0.50	<0.50
Methyl Isobutyl Ketone	31	<0.50	<0.50
Methyl t-butyl ether (MTBE)	11	<0.050	<0.050
Styrene	34	<0.050	<0.050
1,1,1,2-Tetrachloroethane	0.087	<0.050	<0.050
1,1,2,2-Tetrachloroethane	0.05	<0.050	<0.050
Tetrachloroethylene	4.5	<0.050	<0.050
Toluene	68	<0.020	<0.020
1,1,1-Trichloroethane	6.1	<0.050	<0.050
1,1,2-Trichloroethane	0.05	<0.050	<0.050
Trichloroethylene	0.91	<0.050	<0.050
Trichlorofluoromethane (FREON 11)	4	<0.050	<0.050
Vinyl Chloride	0.032	<0.020	<0.020
p+m-Xylene	NG	<0.020	<0.020
o-Xylene	NG	<0.020	<0.020
Xylene (Total)	26	<0.020	<0.020

Notes:

- All units are expressed in micrograms per gram (µg/g).

MOECC Table 3 - Ontario Ministry of the Environment and Climate Change (MOECC), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", July 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (Industrial/Commercial/Community Property Use). Coarse textured soils.

mbgs - Metres below ground surface

< - Less than laboratory reportable dection limit (value indicated)

NG - No standard available

Value - Sample result exceeds applicable MOECC standards.

TABLE D-3: GROUNDWATER ANALYTICAL RESULTS - PETROLEUM HYDROCARBONS (PHCs)

Parameters	Standards	Analytical Results (Sample ID / Sampling Date d/m/y)		
	MOECC Table 3	BHMW16-2 11/3/2016	BHMW16-3 11/3/2016	BHMW16-6 11/3/2016
F1 (C6-C10)	750	<25	<25	<25
F1 (C6-C10) - BTEX	750	<25	<25	<25
F2 (C10-C16)	150	<100	<100	<100
F3 (C16-C34)	500	<200	<200	<200
F4 (C34-C50)	500	<200	<200	<200
Reached Baseline at C50	NG	YES	YES	YES

Notes:

- All units are expressed in micrograms per litre (µg/L).

MOECC Table 3 - Ontario Ministry of the Environment and Climate Change (MOECC), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", July 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (All Types of Property Use). Coarse textured soils.

NG - No standard available

< - Less than laboratory reportable dection limit (value indicated)

Value - Sample result exceeds applicable MOECC standards.

TABLE D-4: GROUNDWATER ANALYTICAL RESULTS - VOLATILE ORGANIC COMPOUNDS (VOCs)

Parameters	Standards	Analytical Results (Sample ID / Sampling Date d/m/y)		
	MOECC Table 3	BHMW16-2 11/3/2016	BHMW16-3 11/3/2016	BHMW16-6 11/3/2016
Acetone (2-Propanone)	130,000	<10	<10	<10
Benzene	44	<0.20	<0.20	<0.20
Bromodichloromethane	85,000	<0.50	<0.50	<0.50
Bromoform	380	<1.0	<1.0	<1.0
Bromomethane	5.6	<0.50	<0.50	<0.50
Carbon Tetrachloride	0.79	<0.20	<0.20	<0.20
Chlorobenzene	630	<0.20	<0.20	<0.20
Chloroform	2.4	<0.20	<0.20	<0.20
Dibromochloromethane	82,000	<0.50	<0.50	<0.50
1,2-Dichlorobenzene	4,600	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	9,600	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	8	<0.50	<0.50	<0.50
Dichlorodifluoromethane (FREON 12)	4,400	<1.0	<1.0	<1.0
1,1-Dichloroethane	320	<0.20	<0.20	<0.20
1,2-Dichloroethane	1.6	<0.50	<0.50	<0.50
1,1-Dichloroethylene	1.6	<0.20	<0.20	<0.20
cis-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	1.6	<0.50	<0.50	<0.50
1,2-Dichloropropane	16	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene	NG	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene	NG	<0.40	<0.40	<0.40
1,3-Dichloropropene (cis+trans)	5.2	<0.50	<0.50	<0.50
Ethylbenzene	2,300	<0.20	<0.20	<0.20
Ethylene Dibromide	0.25	<0.20	<0.20	<0.20
Hexane	51	<1.0	<1.0	<1.0
Methylene Chloride (Dichloromethane)	610	<2.0	<2.0	<2.0
Methyl Ethyl Ketone (2-Butanone)	470,000	<10	<10	<10
Methyl Isobutyl Ketone	140,000	<5.0	<5.0	<5.0
Methyl t-butyl ether (MTBE)	190	<0.50	<0.50	<0.50
Styrene	1,300	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	3.3	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	3.2	<0.50	<0.50	<0.50
Tetrachloroethylene	1.6	<0.20	<0.20	<0.20
Toluene	18,000	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	640	<0.20	<0.20	<0.20
1,1,2-Trichloroethane	4.7	<0.50	<0.50	<0.50
Trichloroethylene	1.6	<0.20	<0.20	<0.20
Trichlorofluoromethane (FREON 11)	2,500	<0.50	<0.50	<0.50
Vinyl Chloride	0.5	<0.20	<0.20	<0.20
p+m-Xylene	NG	<0.20	<0.20	<0.20
o-Xylene	NG	<0.20	<0.20	<0.20
Xylene (Total)	4,200	<0.20	<0.20	<0.20

Notes:

- All units are expressed in micrograms per litre (µg/L).

MOECC Table 3 - Ontario Ministry of the Environment and Climate Change (MOECC), "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act", July 2011. Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (All Types of Property Use). Coarse textured soils.

mbgs - Metres below ground surface

< - Less than laboratory reportable dection limit (value indicated)

NG - No standard available

Value - Sample result exceeds applicable MOECC standards.

APPENDIX E

Laboratory Certificates of Analysis

Your Project #: TS-SO-022154
Your C.O.C. #: 551389-03-01

Attention:Salim Eid

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
K1G 5T9

Report Date: 2016/04/08
Report #: R3954974
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B650687
Received: 2016/03/11, 15:50

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
1,3-Dichloropropene Sum (1)	2	N/A	2016/03/17		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 2)	2	N/A	2016/03/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	2	2016/03/16	2016/03/17	CAM SOP-00316	CCME CWS m
Moisture (1)	2	N/A	2016/03/16	CAM SOP-00445	Carter 2nd ed 51.2 m
pH CaCl2 EXTRACT (1)	1	2016/04/07	2016/04/07	CAM SOP-00413	EPA 9045 D m
Volatile Organic Compounds in Soil (1)	2	N/A	2016/03/16	CAM SOP-00228	EPA 8260C m

Sample Matrix: Water
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Reference
1,3-Dichloropropene Sum (1)	3	N/A	2016/03/17		EPA 8260C m
Petroleum Hydro. CCME F1 & BTEX in Water (1)	3	N/A	2016/03/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Water (1, 3)	3	2016/03/16	2016/03/17	CAM SOP-00316	CCME PHC-CWS m
Volatile Organic Compounds in Water (1)	3	N/A	2016/03/16	CAM SOP-00228	EPA 8260C m

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

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

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

Maxxam Analytics International Corporation o/a Maxxam Analytics 32 Colonnade Rd, Unit #1000, Nepean, ON K2E 7J6 Phone: 613 274-0573 Fax: 613 274-0574 Website: www.maxxam.ca

Your Project #: TS-SO-022154
Your C.O.C. #: 551389-03-01

Attention:Salim Eid

DST Consulting Engineers Inc
Ottawa - Standing Offer
2150 Thurston Dr
Unit 203
Ottawa, ON
K1G 5T9

Report Date: 2016/04/08
Report #: R3954974
Version: 3 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B650687
Received: 2016/03/11, 15:50

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Madison Bingley, Project Manager Assistant
Email: MBingley@maxxam.ca
Phone# (613)274-0573
==========
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		BZZ320	BZZ321		
Sampling Date		2016/03/07 14:00	2016/03/09 13:00		
COC Number		551389-03-01	551389-03-01		
	UNITS	BHMW16-6 SS8	BHMW16-2 SS7	RDL	QC Batch
Inorganics					
Moisture	%	37	37	1.0	4420113
BTEX & F1 Hydrocarbons					
F1 (C6-C10)	ug/g	<10	<10	10	4420861
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	4420861
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	10	4420927
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	50	4420927
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	50	4420927
Reached Baseline at C50	ug/g	Yes	Yes		4420927
Surrogate Recovery (%)					
1,4-Difluorobenzene	%	98	95		4420861
4-Bromofluorobenzene	%	100	101		4420861
D10-Ethylbenzene	%	121	97		4420861
D4-1,2-Dichloroethane	%	101	97		4420861
o-Terphenyl	%	100	98		4420927

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOLATILE ORGANICS (SOIL)

Maxxam ID		BZZ320	BZZ321		
Sampling Date		2016/03/07 14:00	2016/03/09 13:00		
COC Number		551389-03-01	551389-03-01		
	UNITS	BHMW16-6 SS8	BHMW16-2 SS7	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	4415696
Volatile Organics					
Acetone (2-Propanone)	ug/g	<0.50	<0.50	0.50	4417193
Benzene	ug/g	<0.020	<0.020	0.020	4417193
Bromodichloromethane	ug/g	<0.050	<0.050	0.050	4417193
Bromoform	ug/g	<0.050	<0.050	0.050	4417193
Bromomethane	ug/g	<0.050	<0.050	0.050	4417193
Carbon Tetrachloride	ug/g	<0.050	<0.050	0.050	4417193
Chlorobenzene	ug/g	<0.050	<0.050	0.050	4417193
Chloroform	ug/g	<0.050	<0.050	0.050	4417193
Dibromochloromethane	ug/g	<0.050	<0.050	0.050	4417193
1,2-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	4417193
1,3-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	4417193
1,4-Dichlorobenzene	ug/g	<0.050	<0.050	0.050	4417193
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	<0.050	0.050	4417193
1,1-Dichloroethane	ug/g	<0.050	<0.050	0.050	4417193
1,2-Dichloroethane	ug/g	<0.050	<0.050	0.050	4417193
1,1-Dichloroethylene	ug/g	<0.050	<0.050	0.050	4417193
cis-1,2-Dichloroethylene	ug/g	<0.050	<0.050	0.050	4417193
trans-1,2-Dichloroethylene	ug/g	<0.050	<0.050	0.050	4417193
1,2-Dichloropropane	ug/g	<0.050	<0.050	0.050	4417193
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	4417193
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	4417193
Ethylbenzene	ug/g	<0.020	<0.020	0.020	4417193
Ethylene Dibromide	ug/g	<0.050	<0.050	0.050	4417193
Hexane	ug/g	<0.050	<0.050	0.050	4417193
Methylene Chloride(Dichloromethane)	ug/g	<0.050	<0.050	0.050	4417193
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	<0.50	0.50	4417193
Methyl Isobutyl Ketone	ug/g	<0.50	<0.50	0.50	4417193
Methyl t-butyl ether (MTBE)	ug/g	<0.050	<0.050	0.050	4417193
Styrene	ug/g	<0.050	<0.050	0.050	4417193
1,1,1,2-Tetrachloroethane	ug/g	<0.050	<0.050	0.050	4417193
1,1,2,2-Tetrachloroethane	ug/g	<0.050	<0.050	0.050	4417193
Tetrachloroethylene	ug/g	<0.050	<0.050	0.050	4417193
Toluene	ug/g	<0.020	<0.020	0.020	4417193

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOLATILE ORGANICS (SOIL)

Maxxam ID		BZZ320	BZZ321		
Sampling Date		2016/03/07 14:00	2016/03/09 13:00		
COC Number		551389-03-01	551389-03-01		
	UNITS	BHMW16-6 SS8	BHMW16-2 SS7	RDL	QC Batch
1,1,1-Trichloroethane	ug/g	<0.050	<0.050	0.050	4417193
1,1,2-Trichloroethane	ug/g	<0.050	<0.050	0.050	4417193
Trichloroethylene	ug/g	<0.050	<0.050	0.050	4417193
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	<0.050	0.050	4417193
Vinyl Chloride	ug/g	<0.020	<0.020	0.020	4417193
p+m-Xylene	ug/g	<0.020	<0.020	0.020	4417193
o-Xylene	ug/g	<0.020	<0.020	0.020	4417193
Total Xylenes	ug/g	<0.020	<0.020	0.020	4417193
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	96	95		4417193
D10-o-Xylene	%	100	101		4417193
D4-1,2-Dichloroethane	%	103	96		4417193
D8-Toluene	%	100	101		4417193

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Maxxam Job #: B650687
Report Date: 2016/04/08

DST Consulting Engineers Inc
Client Project #: TS-SO-022154

RESULTS OF ANALYSES OF SOIL

Maxxam ID		BZZ321	
Sampling Date		2016/03/09 13:00	
COC Number		551389-03-01	
	UNITS	**BHMW16-2 SS7**	**QC Batch**
Inorganics			
Available (CaCl2) pH	pH	8.01	4447519
QC Batch = Quality Control Batch			

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O.REG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		BZZ322	BZZ323	BZZ324		
Sampling Date		2016/03/11 11:40	2016/03/11 12:40	2016/03/11 13:40		
COC Number		551389-03-01	551389-03-01	551389-03-01		
	UNITS	BHMW16-6	BHMW16-3	BHMW16-2	RDL	QC Batch
BTEX & F1 Hydrocarbons						
F1 (C6-C10)	ug/L	<25	<25	<25	25	4420151
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	4420151
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100	<100	<100	100	4420937
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	200	4420937
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	200	4420937
Reached Baseline at C50	ug/L	Yes	Yes	Yes		4420937
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	110	113	112		4420151
4-Bromofluorobenzene	%	94	95	95		4420151
D10-Ethylbenzene	%	106	103	101		4420151
D4-1,2-Dichloroethane	%	124	129	128		4420151
o-Terphenyl	%	99	103	101		4420937

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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O.REG 153 VOLATILE ORGANICS (WATER)

Maxxam ID		BZZ322	BZZ322	BZZ323	BZZ324		
Sampling Date		2016/03/11 11:40	2016/03/11 11:40	2016/03/11 12:40	2016/03/11 13:40		
COC Number		551389-03-01	551389-03-01	551389-03-01	551389-03-01		
	UNITS	BHMW16-6	BHMW16-6 Lab-Dup	BHMW16-3	BHMW16-2	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/L	<0.50		<0.50	<0.50	0.50	4415773
Volatile Organics							
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	10	4417909
Benzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4417909
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4417909
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	4417909
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	4417909
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	4417909
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	4417909
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	10	4417909
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	4417909
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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O.REG 153 VOLATILE ORGANICS (WATER)

Maxxam ID		BZZ322	BZZ322	BZZ323	BZZ324		
Sampling Date		2016/03/11 11:40	2016/03/11 11:40	2016/03/11 12:40	2016/03/11 13:40		
COC Number		551389-03-01	551389-03-01	551389-03-01	551389-03-01		
	UNITS	BHMW16-6	BHMW16-6 Lab-Dup	BHMW16-3	BHMW16-2	RDL	QC Batch
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	4417909
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
p+m-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Total Xylenes	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	4417909
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	99	99	99	99		4417909
D4-1,2-Dichloroethane	%	95	95	97	98		4417909
D8-Toluene	%	97	97	96	97		4417909

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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TEST SUMMARY

Maxxam ID: BZZ320 **Collected:** 2016/03/07
Sample ID: BHMW16-6 SS8 **Shipped:**
Matrix: Soil **Received:** 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4415696	N/A	2016/03/17	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	4420861	N/A	2016/03/17	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	4420927	2016/03/16	2016/03/17	Zhiyue (Frank) Zhu
Moisture	BAL	4420113	N/A	2016/03/16	Shivani Desai
Volatile Organic Compounds in Soil	GC/MS	4417193	N/A	2016/03/16	John Wu

Maxxam ID: BZZ321 **Collected:** 2016/03/09
Sample ID: BHMW16-2 SS7 **Shipped:**
Matrix: Soil **Received:** 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4415696	N/A	2016/03/17	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	4420861	N/A	2016/03/17	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	4420927	2016/03/16	2016/03/17	Zhiyue (Frank) Zhu
Moisture	BAL	4420113	N/A	2016/03/16	Shivani Desai
pH CaCl2 EXTRACT	AT	4447519	2016/04/07	2016/04/07	Surinder Rai
Volatile Organic Compounds in Soil	GC/MS	4417193	N/A	2016/03/16	John Wu

Maxxam ID: BZZ322 **Collected:** 2016/03/11
Sample ID: BHMW16-6 **Shipped:**
Matrix: Water **Received:** 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4415773	N/A	2016/03/17	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4420151	N/A	2016/03/17	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4420937	2016/03/16	2016/03/17	Zhiyue (Frank) Zhu
Volatile Organic Compounds in Water	GC/MS	4417909	N/A	2016/03/16	Denis Reid

Maxxam ID: BZZ322 Dup **Collected:** 2016/03/11
Sample ID: BHMW16-6 **Shipped:**
Matrix: Water **Received:** 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds in Water	GC/MS	4417909	N/A	2016/03/16	Denis Reid

Maxxam ID: BZZ323 **Collected:** 2016/03/11
Sample ID: BHMW16-3 **Shipped:**
Matrix: Water **Received:** 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4415773	N/A	2016/03/17	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4420151	N/A	2016/03/17	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4420937	2016/03/16	2016/03/17	Zhiyue (Frank) Zhu
Volatile Organic Compounds in Water	GC/MS	4417909	N/A	2016/03/16	Denis Reid

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Maxxam Job #: B650687
Report Date: 2016/04/08

DST Consulting Engineers Inc
Client Project #: TS-SO-022154

TEST SUMMARY

Maxxam ID: BZZ324
Sample ID: BHMW16-2
Matrix: Water

Collected: 2016/03/11
Shipped:
Received: 2016/03/11

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	4415773	N/A	2016/03/17	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Water	HSGC/MSFD	4420151	N/A	2016/03/17	Georgeta Rusu
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	4420937	2016/03/16	2016/03/17	Zhiyue (Frank) Zhu
Volatile Organic Compounds in Water	GC/MS	4417909	N/A	2016/03/16	Denis Reid

Maxxam Analytics International Corporation o/a Maxxam Analytics 32 Colonnade Rd, Unit #1000, Nepean, ON K2E 7J6 Phone: 613 274-0573 Fax: 613 274-0574 Website: www.maxxam.ca

GENERAL COMMENTS

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

Package 1	4.7°C

Revised Report (2016/04/08): Date sampled updated.

Results relate only to the items tested.

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Maxxam Job #: B650687
Report Date: 2016/04/08

QUALITY ASSURANCE REPORT

DST Consulting Engineers Inc
Client Project #: TS-SO-022154

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
4417193	4-Bromofluorobenzene	2016/03/16	98	60 - 140	98	60 - 140	97	%		
4417193	D10-o-Xylene	2016/03/16	93	60 - 130	93	60 - 130	91	%		
4417193	D4-1,2-Dichloroethane	2016/03/16	96	60 - 140	102	60 - 140	106	%		
4417193	D8-Toluene	2016/03/16	107	60 - 140	104	60 - 140	98	%		
4417909	4-Bromofluorobenzene	2016/03/16	100	70 - 130	100	70 - 130	100	%		
4417909	D4-1,2-Dichloroethane	2016/03/16	99	70 - 130	98	70 - 130	97	%		
4417909	D8-Toluene	2016/03/16	100	70 - 130	99	70 - 130	97	%		
4420151	1,4-Difluorobenzene	2016/03/16	115	70 - 130	108	70 - 130	111	%		
4420151	4-Bromofluorobenzene	2016/03/16	92	70 - 130	96	70 - 130	96	%		
4420151	D10-Ethylbenzene	2016/03/16	98	70 - 130	94	70 - 130	102	%		
4420151	D4-1,2-Dichloroethane	2016/03/16	125	70 - 130	117	70 - 130	120	%		
4420861	1,4-Difluorobenzene	2016/03/16	99	60 - 140	98	60 - 140	97	%		
4420861	4-Bromofluorobenzene	2016/03/16	98	60 - 140	102	60 - 140	101	%		
4420861	D10-Ethylbenzene	2016/03/16	88	60 - 140	86	60 - 140	86	%		
4420861	D4-1,2-Dichloroethane	2016/03/16	100	60 - 140	99	60 - 140	97	%		
4420927	o-Terphenyl	2016/03/17	93	60 - 130	95	60 - 130	95	%		
4420937	o-Terphenyl	2016/03/16	104	60 - 130	105	60 - 130	103	%		
4417193	1,1,1,2-Tetrachloroethane	2016/03/16	97	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	1,1,1-Trichloroethane	2016/03/16	92	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
4417193	1,1,2,2-Tetrachloroethane	2016/03/16	89	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
4417193	1,1,2-Trichloroethane	2016/03/16	92	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	1,1-Dichloroethane	2016/03/16	90	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
4417193	1,1-Dichloroethylene	2016/03/16	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
4417193	1,2-Dichlorobenzene	2016/03/16	99	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
4417193	1,2-Dichloroethane	2016/03/16	88	60 - 140	96	60 - 130	<0.050	ug/g	NC	50
4417193	1,2-Dichloropropane	2016/03/16	87	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
4417193	1,3-Dichlorobenzene	2016/03/16	100	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	1,4-Dichlorobenzene	2016/03/16	101	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
4417193	Acetone (2-Propanone)	2016/03/16	83	60 - 140	100	60 - 140	<0.50	ug/g	NC	50
4417193	Benzene	2016/03/16	91	60 - 140	93	60 - 130	<0.020	ug/g	NC	50
4417193	Bromodichloromethane	2016/03/16	89	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
4417193	Bromoform	2016/03/16	90	60 - 140	101	60 - 130	<0.050	ug/g	NC	50

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
4417193	Bromomethane	2016/03/16	80	60 - 140	84	60 - 140	<0.050	ug/g	NC	50
4417193	Carbon Tetrachloride	2016/03/16	97	60 - 140	97	60 - 130	<0.050	ug/g	NC	50
4417193	Chlorobenzene	2016/03/16	97	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	Chloroform	2016/03/16	91	60 - 140	94	60 - 130	<0.050	ug/g	NC	50
4417193	cis-1,2-Dichloroethylene	2016/03/16	90	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
4417193	cis-1,3-Dichloropropene	2016/03/16	88	60 - 140	94	60 - 130	<0.030	ug/g	NC	50
4417193	Dibromochloromethane	2016/03/16	94	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
4417193	Dichlorodifluoromethane (FREON 12)	2016/03/16	77	60 - 140	82	60 - 140	<0.050	ug/g	NC	50
4417193	Ethylbenzene	2016/03/16	98	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
4417193	Ethylene Dibromide	2016/03/16	91	60 - 140	100	60 - 130	<0.050	ug/g	NC	50
4417193	Hexane	2016/03/16	104	60 - 140	101	60 - 130	<0.050	ug/g	NC	50
4417193	Methyl Ethyl Ketone (2-Butanone)	2016/03/16	82	60 - 140	101	60 - 140	<0.50	ug/g	NC	50
4417193	Methyl Isobutyl Ketone	2016/03/16	79	60 - 140	96	60 - 130	<0.50	ug/g	NC	50
4417193	Methyl t-butyl ether (MTBE)	2016/03/16	89	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
4417193	Methylene Chloride(Dichloromethane)	2016/03/16	87	60 - 140	91	60 - 130	<0.050	ug/g	NC	50
4417193	o-Xylene	2016/03/16	97	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
4417193	p+m-Xylene	2016/03/16	97	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
4417193	Styrene	2016/03/16	97	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	Tetrachloroethylene	2016/03/16	102	60 - 140	99	60 - 130	<0.050	ug/g	NC	50
4417193	Toluene	2016/03/16	97	60 - 140	96	60 - 130	<0.020	ug/g	NC	50
4417193	Total Xylenes	2016/03/16					<0.020	ug/g	NC	50
4417193	trans-1,2-Dichloroethylene	2016/03/16	92	60 - 140	92	60 - 130	<0.050	ug/g	NC	50
4417193	trans-1,3-Dichloropropene	2016/03/16	91	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
4417193	Trichloroethylene	2016/03/16	93	60 - 140	93	60 - 130	<0.050	ug/g	NC	50
4417193	Trichlorofluoromethane (FREON 11)	2016/03/16	96	60 - 140	95	60 - 130	<0.050	ug/g	NC	50
4417193	Vinyl Chloride	2016/03/16	91	60 - 140	92	60 - 130	<0.020	ug/g	NC	50
4417909	1,1,1,2-Tetrachloroethane	2016/03/16	97	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
4417909	1,1,1-Trichloroethane	2016/03/16	95	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
4417909	1,1,2,2-Tetrachloroethane	2016/03/16	107	70 - 130	106	70 - 130	<0.50	ug/L	NC	30
4417909	1,1,2-Trichloroethane	2016/03/16	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
4417909	1,1-Dichloroethane	2016/03/16	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
4417909	1,1-Dichloroethylene	2016/03/16	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
4417909	1,2-Dichlorobenzene	2016/03/16	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
4417909	1,2-Dichloroethane	2016/03/16	97	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
4417909	1,2-Dichloropropane	2016/03/16	97	70 - 130	96	70 - 130	<0.20	ug/L	NC	30
4417909	1,3-Dichlorobenzene	2016/03/16	94	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
4417909	1,4-Dichlorobenzene	2016/03/16	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
4417909	Acetone (2-Propanone)	2016/03/16	96	60 - 140	92	60 - 140	<10	ug/L	NC	30
4417909	Benzene	2016/03/16	95	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
4417909	Bromodichloromethane	2016/03/16	97	70 - 130	96	70 - 130	<0.50	ug/L	NC	30
4417909	Bromoform	2016/03/16	98	70 - 130	98	70 - 130	<1.0	ug/L	NC	30
4417909	Bromomethane	2016/03/16	88	60 - 140	83	60 - 140	<0.50	ug/L	NC	30
4417909	Carbon Tetrachloride	2016/03/16	98	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
4417909	Chlorobenzene	2016/03/16	96	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
4417909	Chloroform	2016/03/16	97	70 - 130	95	70 - 130	<0.20	ug/L	NC	30
4417909	cis-1,2-Dichloroethylene	2016/03/16	96	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
4417909	cis-1,3-Dichloropropene	2016/03/16	106	70 - 130	98	70 - 130	<0.30	ug/L	NC	30
4417909	Dibromochloromethane	2016/03/16	98	70 - 130	98	70 - 130	<0.50	ug/L	NC	30
4417909	Dichlorodifluoromethane (FREON 12)	2016/03/16	83	60 - 140	82	60 - 140	<1.0	ug/L	NC	30
4417909	Ethylbenzene	2016/03/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
4417909	Ethylene Dibromide	2016/03/16	98	70 - 130	97	70 - 130	<0.20	ug/L	NC	30
4417909	Hexane	2016/03/16	100	70 - 130	98	70 - 130	<1.0	ug/L	NC	30
4417909	Methyl Ethyl Ketone (2-Butanone)	2016/03/16	100	60 - 140	98	60 - 140	<10	ug/L	NC	30
4417909	Methyl Isobutyl Ketone	2016/03/16	100	70 - 130	99	70 - 130	<5.0	ug/L	NC	30
4417909	Methyl t-butyl ether (MTBE)	2016/03/16	98	70 - 130	97	70 - 130	<0.50	ug/L	NC	30
4417909	Methylene Chloride(Dichloromethane)	2016/03/16	97	70 - 130	95	70 - 130	<2.0	ug/L	NC	30
4417909	o-Xylene	2016/03/16	92	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
4417909	p+m-Xylene	2016/03/16	92	70 - 130	90	70 - 130	<0.20	ug/L	NC	30
4417909	Styrene	2016/03/16	95	70 - 130	95	70 - 130	<0.50	ug/L	NC	30
4417909	Tetrachloroethylene	2016/03/16	94	70 - 130	93	70 - 130	<0.20	ug/L	NC	30
4417909	Toluene	2016/03/16	94	70 - 130	92	70 - 130	<0.20	ug/L	NC	30
4417909	Total Xylenes	2016/03/16					<0.20	ug/L	NC	30
4417909	trans-1,2-Dichloroethylene	2016/03/16	95	70 - 130	93	70 - 130	<0.50	ug/L	NC	30
4417909	trans-1,3-Dichloropropene	2016/03/16	109	70 - 130	92	70 - 130	<0.40	ug/L	NC	30

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		SPIKED BLANK		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
4417909	Trichloroethylene	2016/03/16	90	70 - 130	89	70 - 130	<0.20	ug/L	NC	30
4417909	Trichlorofluoromethane (FREON 11)	2016/03/16	95	70 - 130	94	70 - 130	<0.50	ug/L	NC	30
4417909	Vinyl Chloride	2016/03/16	96	70 - 130	94	70 - 130	<0.20	ug/L	NC	30
4420113	Moisture	2016/03/16							5.7	20
4420151	F1 (C6-C10) - BTEX	2016/03/17					<25	ug/L	NC	30
4420151	F1 (C6-C10)	2016/03/17	NC	70 - 130	102	70 - 130	<25	ug/L	5.7	30
4420861	F1 (C6-C10) - BTEX	2016/03/16					<10	ug/g	NC	30
4420861	F1 (C6-C10)	2016/03/16	80	60 - 140	89	80 - 120	<10	ug/g	NC	30
4420927	F2 (C10-C16 Hydrocarbons)	2016/03/17	89	50 - 130	89	80 - 120	<10	ug/g	NC	30
4420927	F3 (C16-C34 Hydrocarbons)	2016/03/17	92	50 - 130	92	80 - 120	<50	ug/g	NC	30
4420927	F4 (C34-C50 Hydrocarbons)	2016/03/17	94	50 - 130	95	80 - 120	<50	ug/g	NC	30
4420937	F2 (C10-C16 Hydrocarbons)	2016/03/17	104	50 - 130	102	60 - 130	<100	ug/L	NC	30
4420937	F3 (C16-C34 Hydrocarbons)	2016/03/17	91	50 - 130	96	60 - 130	<200	ug/L	NC	30
4420937	F4 (C34-C50 Hydrocarbons)	2016/03/17	95	50 - 130	95	60 - 130	<200	ug/L	NC	30
4447519	Available (CaCl2) pH	2016/04/07			99	97 - 103			0.61	N/A

N/A = Not Applicable

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than 2x that of the native sample concentration).

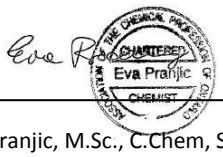
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (one or both samples < 5x RDL).

Maxxam Analytics International Corporation o/a Maxxam Analytics 32 Colonnade Rd, Unit #1000, Nepean, ON K2E 7J6 Phone: 613 274-0573 Fax: 613 274-0574 Website: www.maxxam.ca

VALIDATION SIGNATURE PAGE

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

Cristina Carriere, Scientific Services



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

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

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6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel:(905) 817-5700 Toll-Free:800-563-6266 Fax:(905) 817-5777 www.maxxam.ca

11-Mar-16 15:50
Madison Bingley
B650687
MAF ENV-576

Page 1 of 1

Bottle Order #: 551389

Project Manager: Madison Bingley

C#551389-03-01

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#3824 DST Consulting Engineers Inc	Company Name:		Quotation #:	B52399
Attention:	Accounts Payable	Attention:	Salim Eid	P.O. #:	
Address:	2150 Thurston Dr Unit 203 Ottawa ON K1G 5T9	Address:		Project:	TS-SO-022154
Tel:	(613) 748-1415 Fax: (613) 748-1356	Tel:	Fax:	Project Name:	
Email:	ap@dstgroup.com	Email:	seid@dstgroup.com	Site #:	
				Sampled By:	KS

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

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☑ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ☐ PWQO ☐ Other

Special Instructions:

Include Criteria on Certificate of Analysis (Y/N)? ___

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: 10
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	O.Reg 153 Petroleum Hydrocarbons (Soil)	O.Reg 153 Volatile Organics (Soil)	# of Bottles	Comments
1		BH mw 16-6	3/7/16	2pm	SOIL	X	X	4	
2		BH mw 16-2	3/10/16	1pm	SOIL	X	X	4	
3		BH mw 16-3	3/10/16	12:30	SOIL	X	X	4	
4					SOIL				
5					SOIL				
6					SOIL				
7		BH mw 16-6	3/11/16	11:40	GW	X	X	7	RECEIVED IN OTTAWA
8		BH mw 16-3	"	12:40	GW	X	X	7	
9		BH mw 16-2	"	1:40	GW	X	X	7	ON ICE
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
Kelly AP	16/3/11	3:50	Fatemeh Bemani GRAEWAY	2016/03/11	15:50	
				2016/03/12	09:40	

Laboratory Use Only

Time Sensitive	Temperature (°C) on Receipt	Custody Seal	Yes	No
	3, 7, 4	Present		✓
		Intact		✓

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

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

White: Maxxam Yellow: Client

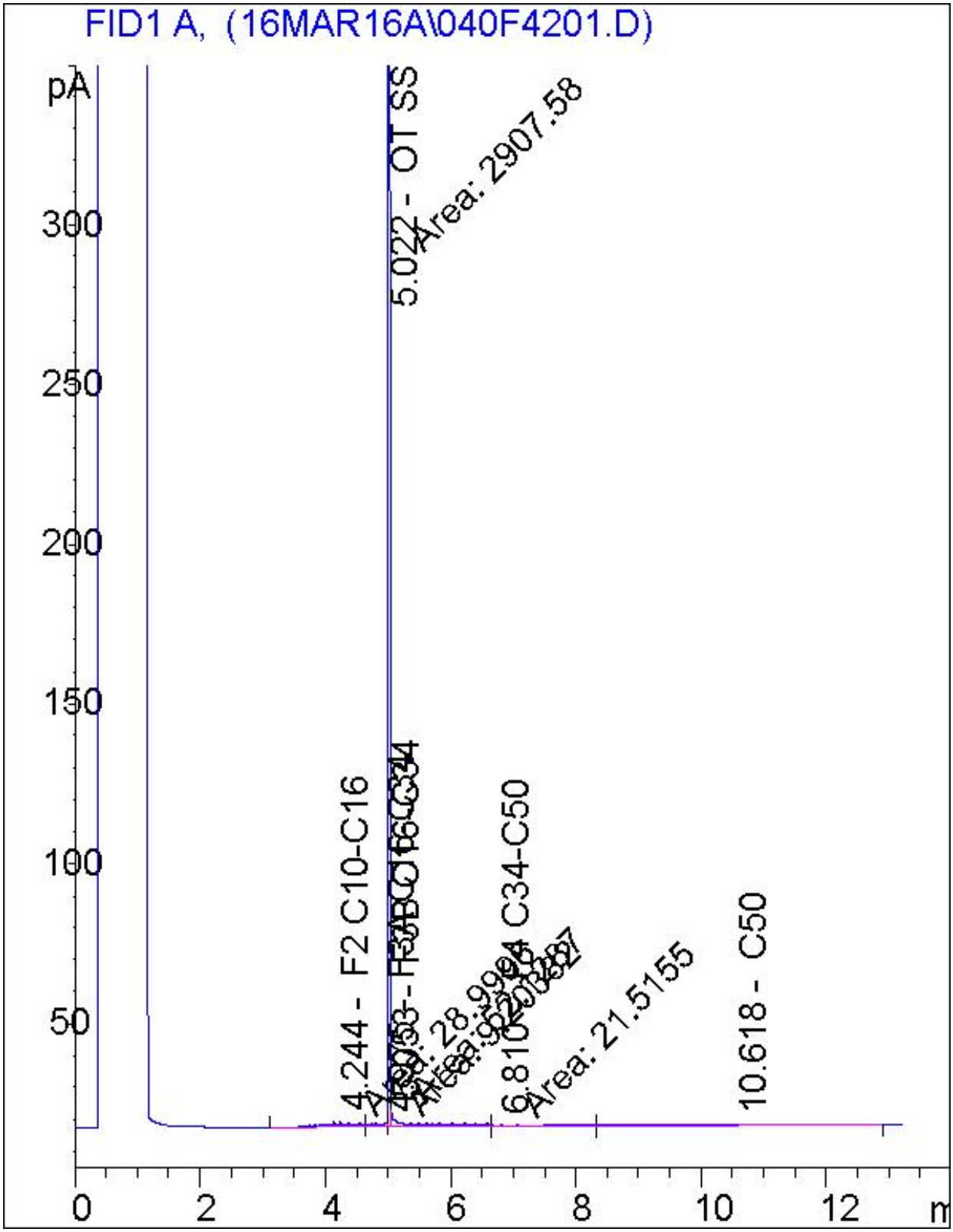
Maxxam Analytics International Corporation o/a Maxxam Analytics

1/2/3

Maxxam Job #: B650687
Report Date: 2016/04/08
Maxxam Sample: BZZ320

DST Consulting Engineers Inc
Client Project #: TS-SO-022154
Client ID: BHMW16-6 SS8

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

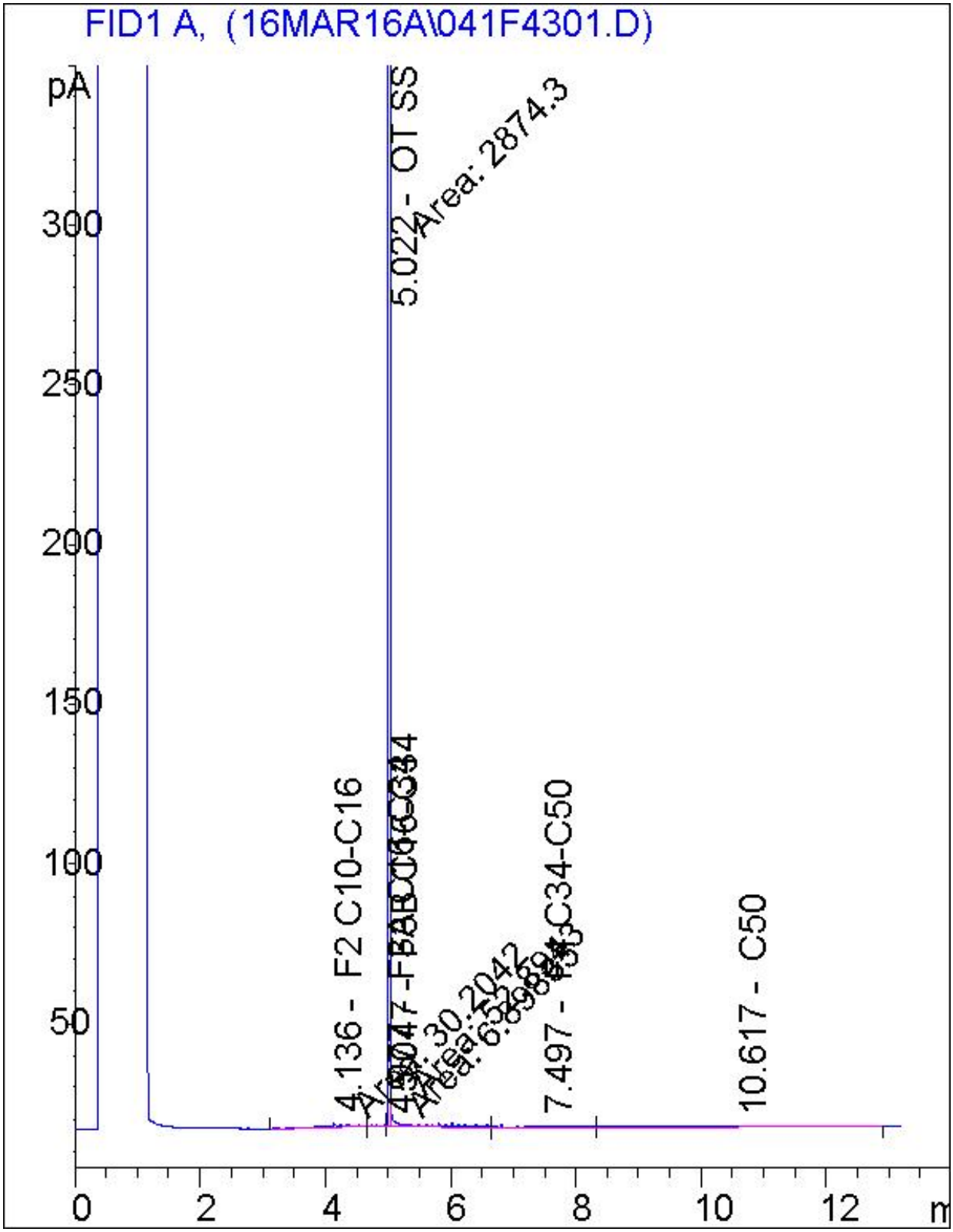


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B650687
Report Date: 2016/04/08
Maxxam Sample: BZZ321

DST Consulting Engineers Inc
Client Project #: TS-SO-022154
Client ID: BHMW16-2 SS7

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram

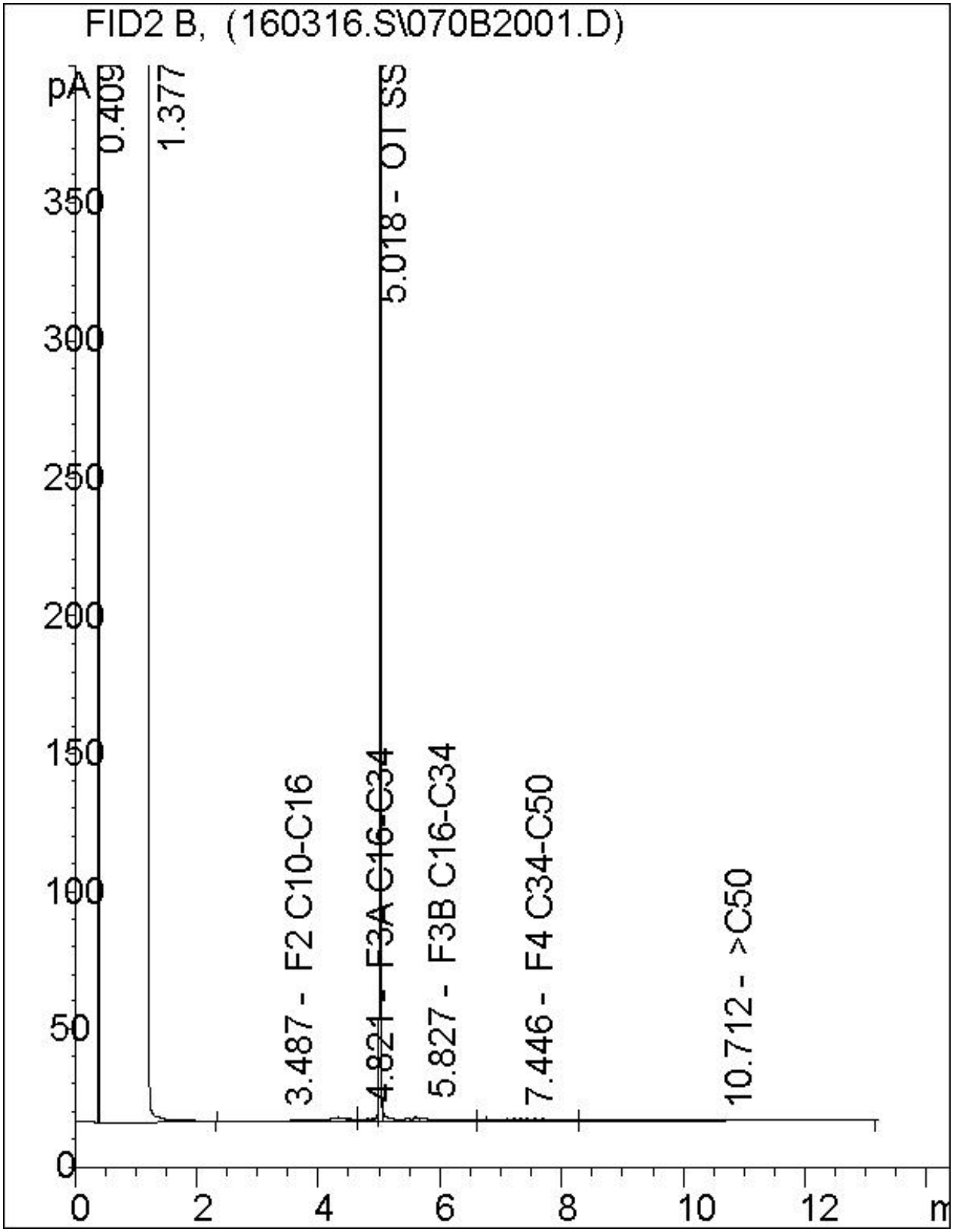


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B650687
Report Date: 2016/04/08
Maxxam Sample: BZZ322

DST Consulting Engineers Inc
Client Project #: TS-SO-022154
Client ID: BHMW16-6

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

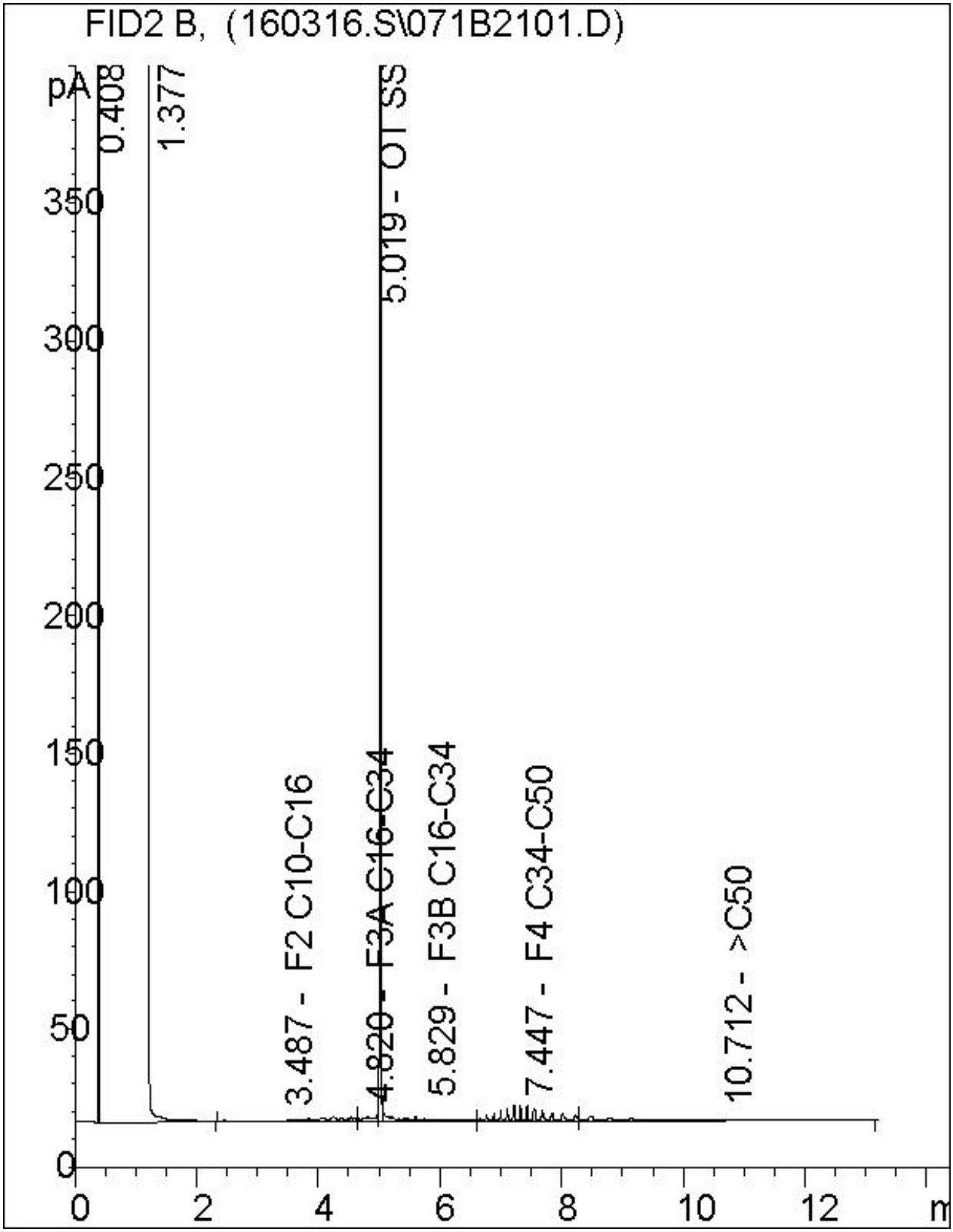


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B650687
Report Date: 2016/04/08
Maxxam Sample: BZZ323

DST Consulting Engineers Inc
Client Project #: TS-SO-022154
Client ID: BHMW16-3

Petroleum Hydrocarbons F2-F4 in Water Chromatogram

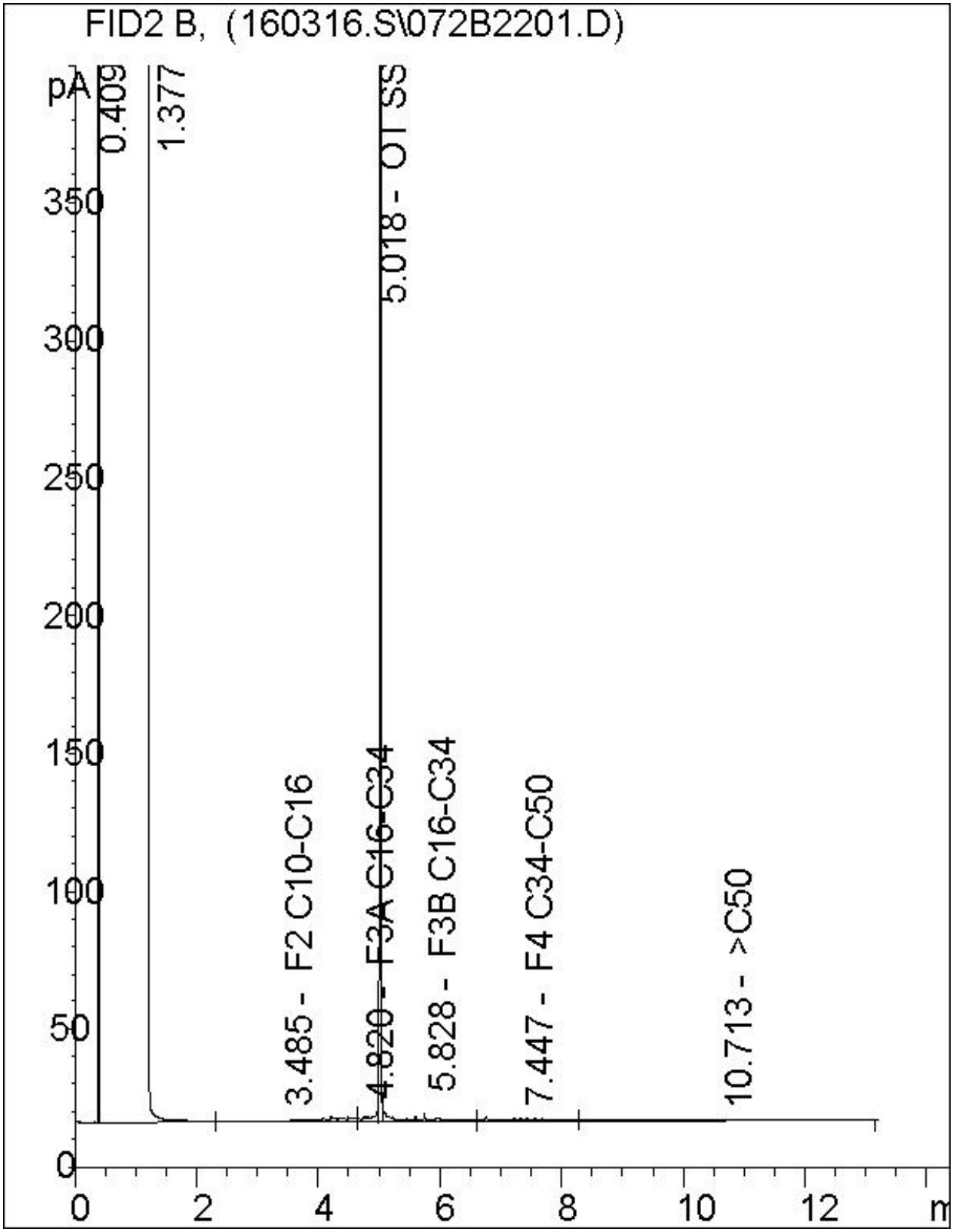


Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Maxxam Job #: B650687
Report Date: 2016/04/08
Maxxam Sample: BZZ324

DST Consulting Engineers Inc
Client Project #: TS-SO-022154
Client ID: BHMW16-2

Petroleum Hydrocarbons F2-F4 in Water Chromatogram



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

APPENDIX F

Limitations of Report and Qualifications of Assessors

Limitations of Report

The information, conclusions and recommendations given herein are specifically for this project and Enterprise Holdings Inc. (the “Client”) only, and for the scope of work described herein. It may not be sufficient for other uses. DST does not accept responsibility for use by third parties.

The data, conclusions and recommendations which are presented in this report, and the quality thereof, are based on a scope of work authorized by the Client. Note, however, that no scope of work, no matter how exhaustive, can identify all contaminants or all conditions above and below ground. For example, conditions between test holes may differ from those encountered in the investigation and observed or measured conditions may change with time. This report therefore cannot warranty that all conditions on or off the site are represented by those identified at specific locations.

Any recommendations and conclusions provided that are based on conditions or assumptions reported herein will inherently include any uncertainty associated with those conditions or assumptions. In fact many aspects involving professional judgement such as subsurface models and remediation criteria contain a degree of uncertainty which cannot be eliminated. This uncertainty should be managed by periodic review and refinement as additional information becomes available.

Note also that standards, guidelines and practices related to environmental investigations may change with time. Those which were applied at the time of this investigation may be obsolete or unacceptable at a later date.

Any topographic benchmarks and elevations documented in this report are primarily to establish relative elevation differences between test locations and should not be used for other purposes such as grading, excavation, planning, development, etc.

Any comments given in this report on potential remediation problems and possible methods are intended only for the guidance of the designer. The scope of work may not be sufficient to determine all of the factors that may affect construction or clean-up methods and costs. Contractors bidding on this project or undertaking clean-ups should, therefore, make their own interpretation of the factual information presented and draw their own conclusions as to how the conditions may affect their work.

Any results from an analytical laboratory, title searcher or other subcontractor reported herein have been carried out by others, and DST cannot warranty their accuracy. Similarly, DST cannot warranty the accuracy of information supplied by the Client.

Qualifications of Assessors

Salim Eid, EIT, is a Project Manager with DST. He has been involved in studies in the geotechnical and environmental industry, including Phase I, II and III ESAs. Mr. Eid has supervised the advancement of boreholes and installation of groundwater monitoring wells for several investigations. He has collected soil samples, performed sample logging, determined potential environmental areas of concern on subject sites, organized data, interpreted maps, and conducted background research and literature reviews. He has been the lead author on various environmental reports, including ESAs, Specifications, and Remediation Reports.

Andrew Naoum, P.Eng, is a Regional Manager and Junior Associate with DST with over 7 years' experience in the environmental industry. His responsibilities include project management, including budget control, staff scheduling and client liaison, as well as engineering investigations. Mr. Naoum has worked and managed various types of environmental projects, including Phase I and II Environmental Site Assessments (ESAs) throughout Canada, site remediation programs, risk assessments, storage tank compliance audits and designs, remedial action plans (RAPs) and building demolition / site decommissioning.