PHASE II ENVIRONMENTAL SITE ASSESSMENT
AGRICULTURAL PROPERTY
237 DUNDAS STREET WEST
OAKVILLE, ONTARIO

Submitted to:

MATTAMY DEVELOPMENT CORPORATION
2360 BRISTOL CIRCLE
OAKVILLE, ONTARIO
L6H 6M5

Submitted by:

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December 11, 2007

TT7305501

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1.0 INTRODUCTION

AMEC Earth & Environmental, a division of AMEC Americas Limited ("AMEC"), was retained by Mattamy Development Corporation ("Mattamy") (the "CLIENT") to conduct a Phase II Environmental Site Assessment ("ESA") at 237 Dundas Street West, Oakville, Ontario (the "Site") (Figure 1). Currently, the Site is owned by Pendent Developments Limited and Lower Fourth Limited of Mattamy ("OWNER") and at the time of the reconnaissance was occupied by two residential tenants and utilized by Mr. Dave Robinson ("OCCUPANT") for agricultural purposes.

The purpose of the Phase II ESA is to investigate potential environmental concerns and to assess soil and ground water conditions at the Site with respect to "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act", dated 9 March, 2004.

The Phase II ESA will address potential environmental issues at the Site outlined in a report prepared by AMEC for Mattamy entitled, "*Phase I Environmental Site Assessment 237 Dundas Street West, Oakville, Ontario*", dated 11 December 2007.

A Phase II ESA is defined as a systematic quantitative process to confirm the presence of and characterize the substances of concern at a given Site. This Phase II ESA was conducted in accordance with the Phase II ESA standard as defined by Ontario Regulation 153/04 and the CAN/CSA Z769-00 Phase II Environmental Site Assessment, referenced therein.

2.0 PHASE II ENVIRONMENTAL SITE ASSESSMENT

2.1 Phase II Objectives

The objective of the Phase II Environmental Site Assessment was to provide an assessment of the subsurface soil and ground water conditions at the Site. The purpose of the Phase II ESA was to determine whether there are any impacts in the soil and ground water resulting from the potential sources of impact identified in the Phase I ESA.

Based on the Phase I ESA completed by AMEC conducted on 28 May and 20 June 2007, there is evidence of potential or actual contamination associated with the following activities related to the Site.

- The Site is currently and has historically been used for agricultural purposes including three historic orchards, which were located east and west of the farmstead as well as the southeast corner of the Site. Significant herbicide and pesticide use was a common practice in orchards, as such, the potential for residual herbicide, pesticide lead and arsenic impact in the near surface topsoil exists. Additionally, AMEC noted the presence of four pesticide spray tanks in the vicinity of the equipment shed as well as the southeast portion of the property. The orchards in the vicinity of the farmstead are visible in the 1962 aerial photo and the orchard in the southeast portion of the Site is visible in the 1934 aerial photograph;
- A portion of the southeast corner of the Site exhibits discolouration which may potentially represent fill materials, this discolouration was noted in the 1962 and 1988 aerial photos, furthermore, AMEC noted fill materials used in the construction of ramps for both former structures; and
- AMEC observed a fill pipe and gasoline pump during the Site reconnaissance suggesting the presence of at least one UST.

Based on the above suspected contaminants, the appropriate parameters for analysis related to these concerns include soil and ground water analysis of volatile organic compounds (“VOCs”), and petroleum hydrocarbon (“PHC”) and soil analysis of benzene, toluene, ethylbenzene and xylenes (“BTEX”), metals and inorganics and organochlorine pesticides (“OCP”)

2.2 Scope of Phase II Assessment

The subsurface assessment included the following site activities:

- Clearance of all potential underground utilities prior to commencing drilling, excavation and test pit activities;
- Conducting the soil and ground water sampling activities in accordance with the MOE *Guidance on Sampling and Analytical Methods for Use at Contaminated Site in Ontario,* dated December 1996;
- Inspecting soil conditions by collecting samples by advancing two (2) boreholes to a maximum depth of 6.0 metres below ground surface (“mbgs”) or to bedrock or to one metre below the estimated water table, whichever is encountered first. Additionally,

AMEC will obtain soil samples by advancing test pits with a backhoe as well collecting shallow soil samples using a shovel;

- Collection of ground water samples for analysis by installing ground water monitors in each environmental borehole;
- Field screening of all recovered soil samples for the presence of environmental impact (i.e. staining, odours), including the measurement of organic vapours in the headspace of collected samples using a portable vapour meter (GasTechtor 1238ME) operated in methane exclusion mode;
- Submitting selected soil and ground water samples for laboratory analysis of parameters associated with the potential sources of impact; and
- Comparing the results of the laboratory analysis to the appropriate Ontario Regulation standards.

2.3 Ontario Regulation 153/04 - Site Condition Standards

Under Ontario Regulation 153/04, there are three approaches for selecting appropriate site condition standards; the Background approach, the Generic approach and Site Specific Risk Assessment. For the purposes of this assessment, the Full Depth Generic Site Condition Standards in a Potable Ground Water Condition approach was used.

The Generic approach requires that the Site be classified to determine which remediation criteria are appropriate. The classification of the subject Site was based on the following Site characteristics:

- pH analysis on twelve (12) soil samples was found to be within the applicable range of 5.0 to 9.0 for application of the Generic standard (see results in Table 3);
- A grain size analysis was conducted for the Site; soils encountered predominantly consisted of a clayey, sandy silt with traces of gravel. The results of the grain size analysis indicate the Site contains medium/fine textured soils (See Appendix D);
- Based on a search of the NHIC website as well as Site and surrounding property observations, no areas of environmental significance were identified within 1 km of the Site;
- Bedrock was observed in the boreholes at a depth of greater than two (2) metres below ground surface (mbgs); and
- Drinking water in the vicinity of the Site is obtained by private ground water wells.

Based on the above information, the appropriate site condition standards for this Site would be the Table 2 standards for Potable Ground Water and Agricultural or other Property Use for medium and fine textured soils.

2.4 Soil Sampling, Inspection and Preservation Procedures

Soil samples from the boreholes were obtained for field screening and laboratory analysis from split spoon sampling using a track mounted drill rig. Testpit and shallow soil samples were obtained using the direct grab sampling method. The procedure for the field inspection and preservation of the soil samples was the same throughout the sampling program. The procedures are consistent with generally accepted professional practices and with the Ontario Ministry of the Environment Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario, dated December 1996. AMEC's soil sampling, inspection and preservation procedures are presented in Appendix A.

2.5 Subsurface assessment

AMEC retained Determination Drilling and Soil Investigations ("DDSI") and Claybar Contracting Inc. ("Claybar") to complete the soil investigation activities at the Site. The drilling, shallow soil sampling, test pitting and UST removal activities are described in the following sections.

All soil and ground water samples were submitted for chemical analysis to AGAT Laboratories ("AGAT") located in Mississauga, Ontario. AGAT is accredited by the Canadian Association of Environmental Analytical Laboratories ("CAEAL").

2.5.1 UST Removal

On September 11, 2007 Claybar removed a 700 gallon UST from the Site. The UST was located approximately 22 metres southwest of the farmhouse adjacent to a fenced animal enclosure. The UST was oriented in a northeast to southwest direction and was found to contain 2,329 litres of waste water / gasoline. The liquid waste was removed by C.J. Liquid Waste Haulage Ltd. (a licensed waste carrier) under MOE waste generator number ON3447877, and hauled to Direct Line Environmental, a licensed receiver in Pickering, Ontario, for disposal. The UST was of steel construction and found to be in good condition with no holes and only minor pitting. No staining or odours were noted from soils of the tank cavity.

AMEC obtained soil samples from the walls and floor of the UST excavation. The locations of the samples are shown in Figure 3. The general soil types encountered included dense silty clays. Organic vapour measurements (OVMs) were taken on 10 soil samples using a portable vapour meter (GasTechtor™ 1238ME), calibrated to hexane and operated in methane exclusion mode. OVM readings ranged between non-detect ("ND") to 45 parts per million ("ppm"). The OVMs and corresponding soil analysis can be found in Table 2 and Figure 3.

Five (5) of the worst case soil samples including FS1 (floor sample, 45 ppm, 1.83 mbgs), FS2 (floor sample, 5 ppm, 1.83 mbgs), SW2 (south wall, 25 ppm, 1.5 mbgs), EW2 (east wall, 25 ppm, 1.5 mbgs) and BF1 (backfill, ND) were analyzed for PHC (F1-F4) and BTEX.

2.5.2 Shallow Soil Sampling

On September 11, 2007 AMEC collected shallow soil samples using a shovel in order to address potential pesticides and metals on Site.

Seven (7) soil samples (including one duplicate) were collected and submitted for laboratory analysis. No staining or odours were noted in any of the samples. Soil samples collected were submitted to the laboratory for chemical analysis of metals and inorganics and pesticides. The sample locations are shown on Figure 2.

2.5.3 Test Pit Program

On September 11, 2007 Claybar advanced five (5) test pits at the Site under AMEC supervision. The test pits were advanced using a rubber tire backhoe in order to address potential fill located on Site. The soil stratigraphy encountered during the test pit program consisted predominantly of silty clay fill over native silty clay till.

Five (5) of the worst-case soil samples (based on visual and olfactory evidence and/or soil depth) from the test pits were submitted for laboratory analysis. No staining was noted in any of the boreholes. Soil samples collected from the test pits were submitted to the laboratory for chemical analysis of metals and inorganics. The sample locations are shown on the test pit log that is presented in Appendix C.

2.5.4 Borehole Drilling

On September 12, 2007 DDSI advanced two (2) boreholes to address specific environmental concerns. The soil conditions encountered during the drilling were monitored by AMEC. The boreholes were drilled using CME 75 track mounted drill rig equipped with hollow and solid stem augers and conventional split spoon sampling.

The borehole ("BH") locations are shown on Figure 2 as BH1 and BH2. The borehole logs are presented in Appendix B. The borehole locations were selected to assess the soil and ground water conditions at the Site. The depth of the boreholes ranged from 5.5 to 6.1 mbgs.

Three (3) of the worst-case soil samples (based on visual and olfactory evidence, vapours and/or soil depth and including one (1) duplicate) from the boreholes were submitted for laboratory analysis. No staining and petroleum odours were noted in samples from BH1 and BH2. Combustible soil headspace vapour readings were measured using a portable vapour meter (GasTechtor™ 1238ME), calibrated to hexane and operated in methane exclusion mode. Organic vapour readings from the soil samples collected from the boreholes ranged from non-detect to 500 parts per million ("ppm"). Soil samples collected from the boreholes were submitted to the laboratory for chemical analysis of one or more of VOCs, BTEX and PHC (F1-F4). The sample locations are shown on the borehole log that is presented in Appendix B.

2.5.5 Ground Water

Ground water monitoring wells were installed in each of the two (2) boreholes drilled on the Site. The ground water monitoring well installations ranged from 5.5 to 6.1 mbgs. The locations of the ground water monitoring wells BH1 and BH2 are shown on Figure 2.

The ground water monitors were constructed with approximately 3.0 m of slotted pipe packed with clean sand to a depth of 0.6 m above the slotted pipe and backfilled to grade with bentonite. The ground water monitors were installed with watertight caps and protective casings set in concrete. The ground water sampling is discussed in Section 2.6, Ground Water Conditions.

2.6 Ground Water Conditions

The two (2) newly installed ground water monitoring wells BH1 and BH2 were purged and sampled on 19 September 2007. No ground water was present in BH2 at this time. The ground water level observed in the BH1 was recorded at a depth of 4.7 mbgs. No liquid petroleum hydrocarbons were observed during monitoring on 19 September 2007.

One (1) ground water sample was submitted to AGAT Laboratories ("AGAT") located in Mississauga, Ontario for analysis of VOCs and PHC (F1-F4). AGAT is accredited by the Canadian Association of Environmental Analytical Laboratories ("CAEAL"). Additionally, one (1) field blank, one (1) trip blank and one (1) travel spike were submitted for laboratory analysis for quality assurance/quality control ("QA/QC") purposes.

Ground Water Flow Direction

Based on topographic maps and previous investigations in the area of the Site, the ground water flow direction is inferred to be to the south.

2.7 Laboratory Analytical Results

2.7.1 Soil Analytical Results

A total of two (2) soil samples (including one (1) duplicate) were submitted for laboratory analysis of VOCs.

A total of eight (8) soil samples (including one (1) duplicate) were submitted for laboratory analysis of PHC (F1-F4) and BTEX.

A total of 12 (twelve) soil samples (including one (1) duplicate) were submitted for laboratory analysis of metals and inorganics.

A total of seven (7) soil samples (including one (1) duplicate) were submitted for laboratory analysis of pesticides.

All of the reported results were either non-detect or below the Table 2 standards for all tested parameters.

The laboratory certificates of analysis for all soil chemical analysis are presented in Appendix E.

2.7.2 Soil QA/QC Evaluation

The relative percent differences ("RPDs") were calculated (where possible) for all duplicate samples and are presented in Appendix F. The calculated RPDs for the field duplicates were within the acceptable alert limits (100%).

Based on the review of laboratory QA/QC, there were no potential QA/QC repercussions anticipated in regards to the quality of the laboratory analytical data.

2.7.3 Ground Water Analytical Results

One (1) ground water sample was submitted for laboratory analysis of VOCs and PHC (F1-F4). The concentration of VOC and PHC (F1-F4) in the sample was either non-detect or below the Table 2 standards.

The laboratory certificates of analysis ("CofAs") for the ground water chemical analysis are presented in Appendix E.

2.7.4 Ground Water QA/QC Evaluation

Field QA/QC

The reported concentrations for the field blank (Field Blank) and trip blank (Trip Blank) samples are below the laboratory MDLs and therefore, no contamination was introduced during the collection and transportation of the samples. The percent recovery from the travel spike sample was within acceptable limits and therefore, the integrity of the samples was maintained during the transportation of the samples (i.e., stored at less than 10^{O}C). The quality control/quality assurance ("QA/QC") data for the ground water samples is presented in Appendix F.

Laboratory QA/QC

Based on the review of laboratory QA/QC, there were no potential QA/QC repercussions anticipated in regards to the quality of the laboratory analytical data.

3.0 SUMMARY AND CONCLUSIONS

Two (2) boreholes equipped with monitoring wells, five (5) testpits and six (6) shallow soil sampling holes were advanced at the Site under AMEC supervision to address specific environmental concerns. One 700 gallon UST was removed and disposed off-site as scrap metal. Prior to the UST removal, a total of 2,329 litres of gasoline / water from the UST was removed from the UST and hauled to a licensed waste receiver. The above work was conducted in order to address concerns outlined in a report prepared by AMEC for Mattamy entitled, "*Phase I Environmental Site Assessment, Agricultural Property, 237 Dundas Street West, Oakville, Ontario*", dated 14 September, 2007.

The Site was assessed according to Ontario Regulation 153/04 using the full depth option of the Generic Site Condition methodology. The Site was compared to Table 2 standards for Potable Ground Water Condition and Agricultural or Other Property Use.

Based on laboratory results, soil samples collected from the Site were non-detect and/or below the Table 2 standards for all parameters analyzed.

4.0 LIMITATION OF LIABILITY AND SCOPE OF WORK

This report has been prepared and the work referred to in this report has been undertaken by AMEC Earth & Environmental, a division of AMEC Americas Limited ("AMEC") for Mattamy Development Corporation under the terms and conditions agreed upon under proposal number P27022 dated 26 January, 2007 and authorization granted on 31 August, 2007. It is intended for the sole and exclusive use of Mattamy Development Corporation. Any use, reliance on or decision made by any person other than Mattamy Development Corporation and based on this report is the sole responsibility of such other person. Mattamy Development Corporation and AMEC make no representation or warranty to any other person with regard to this report and the work referred to in this report and they accept no duty of care to any other person and any liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties or other harm that may be suffered or incurred by any other person as a result of the use of, reliance on, any decision made or any action taken based on this report or the report of the work referred to in this report.

The investigation undertaken by AMEC with respect to this report and any conclusions or recommendations made in this report reflect AMEC's judgment based on the site conditions observed at the time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this site and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report. Unless otherwise stated, the findings cannot be extended to previous or future site conditions, portions of the site, which were unavailable for direct investigation, subsurface locations, which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. Substances other than those addressed by the investigation described in this report may exist within the site, substances addressed by the investigation may exist in areas of the site not investigated and concentrations of substances addressed which are different than those reported may exist in areas other than the locations from which samples were taken.

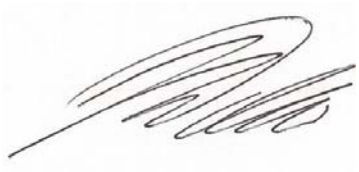
If site conditions or applicable standards change or if any additional information becomes available at a future date, modifications to the findings, conclusions and recommendations in this report may be necessary.

Other than by Mattamy Development Corporation, copying or distribution of this report or use of or reliance on the information contained herein, in whole or in part, is not permitted without the express written permission of AMEC. Nothing in this report is intended to constitute or provide a legal opinion.

Respectfully Submitted,

AMEC Earth & Environmental
a Division of AMEC Americas Ltd.

Prepared by:



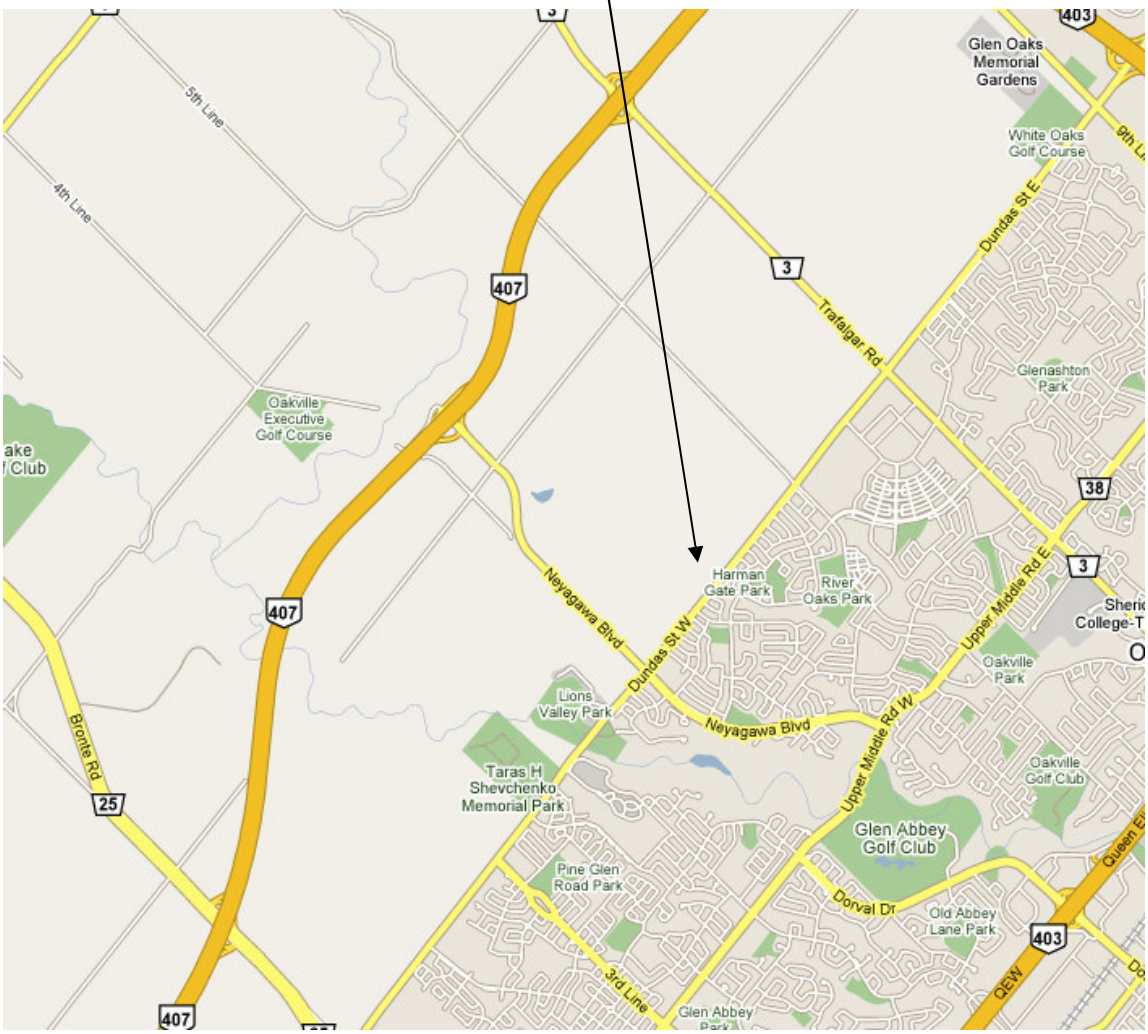
Jonathan Wakani, B. Sc.
Environmental Site Assessor

Reviewed by:

Jeff Carson, P. Eng.
Associate Environmental Engineer

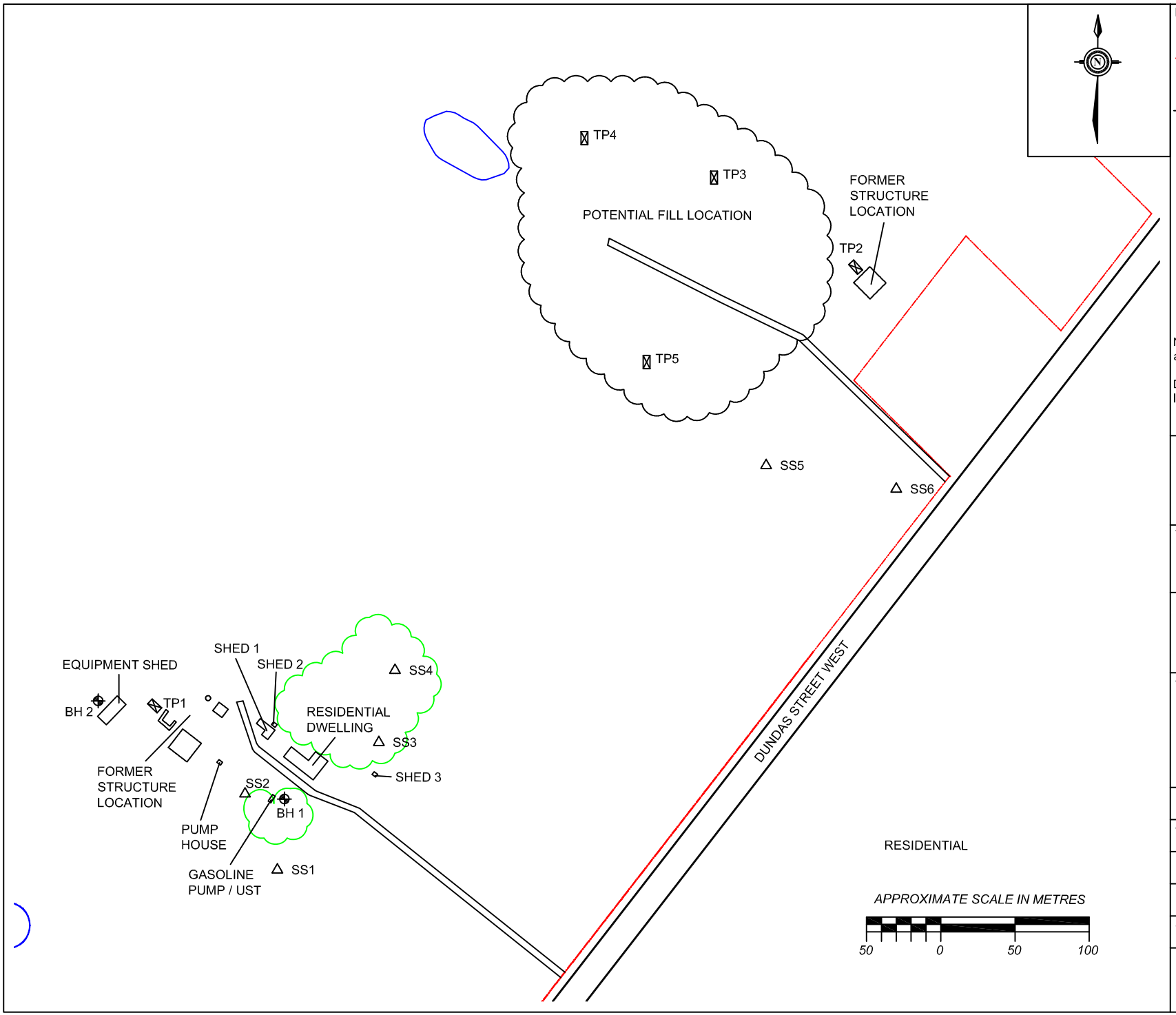
N

SITE



Reference: Google Maps, 2007.

amec	Date: October 2007	Scale: Not to Scale	Project No.: TT7305501
237 Dundas Street West Oakville, Ontario	Drawn by: JW	Approved by: JC	Figure 1 : Site Location Map



LEGEND

- APPROXIMATE SITE BOUNDARY
- BH BOREHOLE
- SS SHALLOW SOIL SAMPLE
- TP TEST PIT
- WATER
- WOOD LOT
- POTENTIAL FILL LOCATION

NOTE: Locations of features approximate.

Drawing based off the City of Oakville Interactive Mapping website.

amec

TITLE:
BOREHOLE LOCATION PLAN

PROJECT:
PHASE II
ENVIRONMENTAL ASSESSMENT
237 Dundas Street West, Oakville, Ontario

CLIENT:
MATTAMY DEVELOPMENT CORPORATION
2360 Bristol Circle
Oakville, Ontario

DRAWN BY: JW

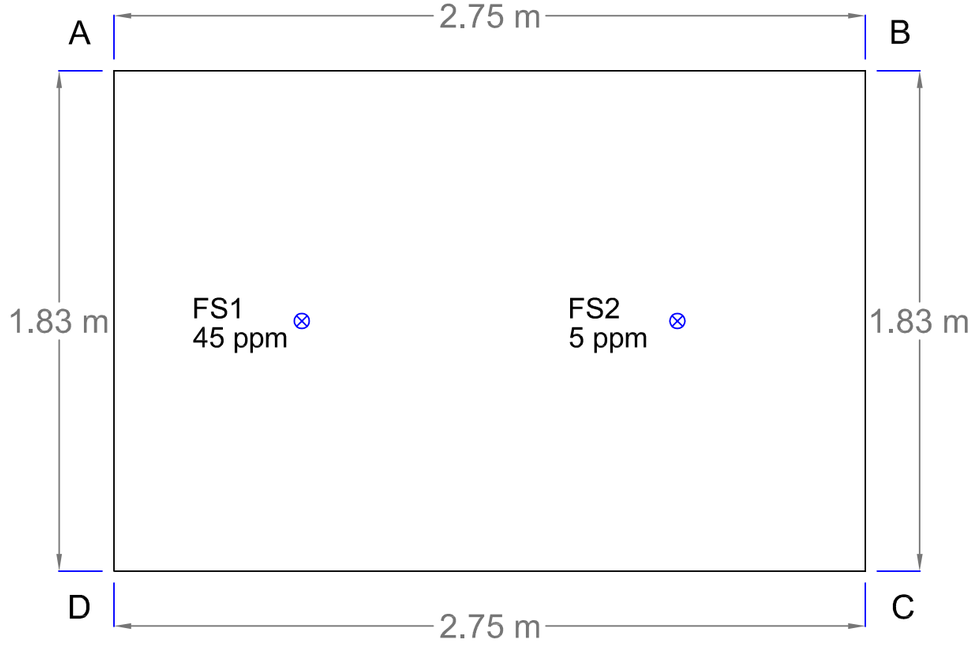
CHECKED BY: JC

DATE: October 2007

PROJECT NO: TT7305501

SCALE: As Indicated

FIGURE NO: 2

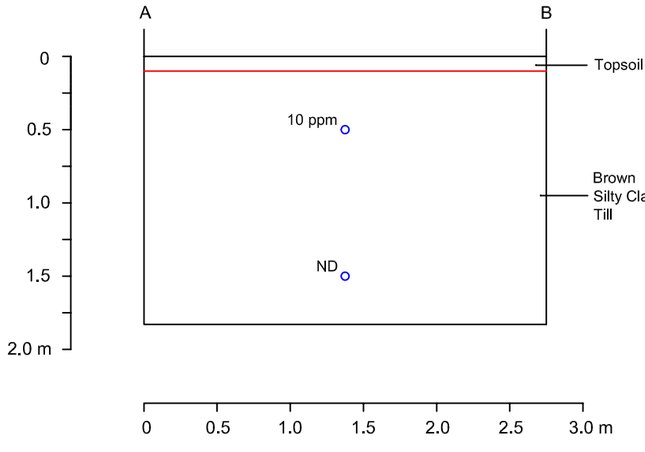


LEGEND:

A B / D C	EXCAVATION BOUNDARY WITH WALL DESIGNATIONS
25 ppm	SOIL VAPOUR HEADSPACE MEASUREMENT
FS1 25 ppm	SOIL SAMPLE SUBMITTED FOR ANALYSIS (SOIL VAPOUR HEADSPACE MEASUREMENT)
ppm	PARTS PER MILLION

ALL MEASUREMENTS IN METRES

A - B WALL



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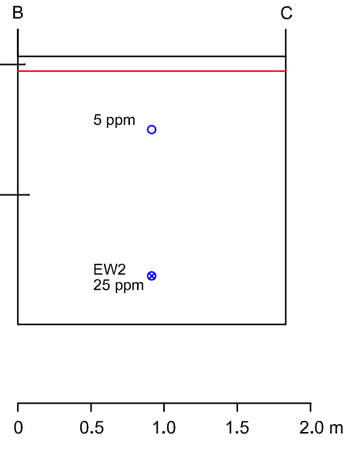
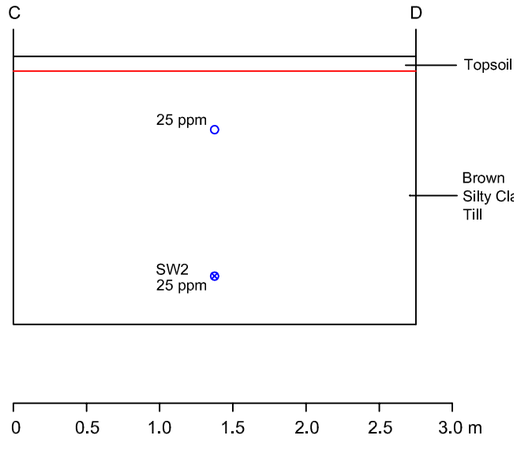
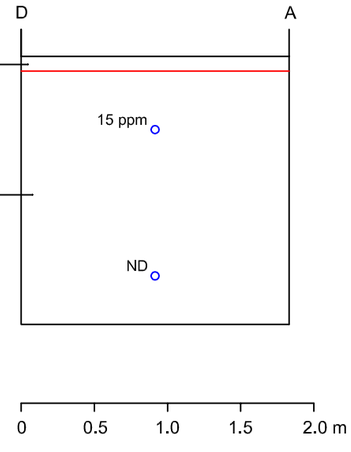


C - D WALL



D - A WALL



TITLE:
UST EXCAVATION FLOOR PLAN AND WALL CROSS-SECTIONS

PROJECT:
PHASE II
ENVIRONMENTAL ASSESSMENT
237 Dundas Street West
Oakville, Ontario

CLIENT:
MATTAMY DEVELOPMENT CORPORATION
2360 Bristol Circle
Oakville, Ontario

DRAWN BY: JW

CHECKED BY: JC

DATE: December 2007

PROJECT NO: TT7305501

SCALE: AS INDICATED

FIGURE NO: 3

Table 1 - Soil Chemical Analysis
Volatile Organic Compounds (VOCs)

Location				Borehole BH 2	Borehole BH 2
Name				BH2-SS3	DUP 3
Depth (metres below ground level)				1.52 - 2.13	1.52 - 2.13
Field Vapour Reading				250 ppm	250 ppm
AGAT Analytical ID Number				793617	793619
	Unit	MDL	Table 2[(A)]		Duplicate of BH2-SS3
Chloromethane	µg/g	0.010	NV	<	<
Vinyl Chloride	µg/g	0.003	0.0075	<	<
Bromomethane	µg/g	0.009	0.38	<	<
Chloroethane	µg/g	0.010	NV	<	<
Trichlorofluoromethane	µg/g	0.003	NV	<	<
Acetone	µg/g	0.074	3.5	<	<
1,1-Dichloroethylene	µg/g	0.002	0.015	<	<
Methylene Chloride	µg/g	0.007	1.1	<	<
TRANS-1,2-Dichloroethylene	µg/g	0.005	4.1	<	<
Methyl tert-butyl Ether	µg/g	0.005	5.7	<	<
1,1-Dichloroethane	µg/g	0.006	3.0	<	<
Methyl Ethyl Ketone	µg/g	0.044	0.27	<	<
CIS 1,2-Dichloroethylene	µg/g	0.006	2.3	<	<
Chloroform	µg/g	0.009	0.13	<	<
1,2- Dichloroethane	µg/g	0.003	0.05	<	<
1,1,1-Trichloroethane	µg/g	0.003	34	<	<
Carbon Tetrachloride	µg/g	0.004	0.64	<	<
Benzene	µg/g	0.004	0.24	<	<
1,2-Dichloropropane	µg/g	0.004	0.12	<	<
Trichloroethylene	µg/g	0.005	3.9	<	<
Bromodichloromethane	µg/g	0.004	0.12	<	<
CIS-1,3-Dichloropropene	µg/g	0.004	NV	<	<
Methyl Isobutyl Ketone	µg/g	0.018	0.48	<	<
TRANS-1,3-Dichloropropene	µg/g	0.002	NV	<	<
1,1,2-Trichloroethane	µg/g	0.005	0.28	<	<
Toluene	µg/g	0.002	2.1	<	<
2-Hexanone	µg/g	0.021	NV	<	<
Dibromochloromethane	µg/g	0.004	0.09	<	<
Ethylene Dibromide	µg/g	0.004	0.01	<	<
Tetrachloroethylene	µg/g	0.004	0.45	<	<
1,1,1,2-Tetrachloroethane	µg/g	0.004	0.12	<	<
Chlorobenzene	µg/g	0.004	2.4	<	<
Ethylbenzene	µg/g	0.003	0.28	<	<
m & p-Xylene	µg/g	0.002	NV	<	<
Bromoform	µg/g	0.004	0.11	<	<
Styrene	µg/g	0.002	1.7	<	<
1,1,2,2- Tetrachloroethane	µg/g	0.002	0.01	<	<
o-Xylene	µg/g	0.002	NV	<	<
1,3-Dichlorobenzene	µg/g	0.004	30	<	<
1,4-Dichlorobenzene	µg/g	0.005	0.32	<	<
1,2-Dichlorobenzene	µg/g	0.004	0.88	<	<
1,2,4-Trichlorobenzene	µg/g	0.007	30	<	<
1,3-Dichloropropene (Cis + Trans)	µg/g	0.004	0.04	<	<
Xylenes (Total)	µg/g	0.002	25	<	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Table 2 - Soil Chemical Analysis
Petroleum Hydrocarbons (PHC)

Location				Borehole BH 1	Borehole BH 2	Borehole BH 2
Name				BH1-SS5	BH2-SS3	DUP 3
Depth (metres below ground level)				3.05 - 3.66	1.52 - 2.13	1.52 - 2.13
Field Vapour Reading				500 ppm	250 ppm	250 ppm
AGAT Analytical ID Number				793616	793617	793619
	Unit	MDL	Table 2[(A)]			Duplicate of BH2-SS3
Benzene	µg/g	0.10	0.24	<	<(0.004)	<(0.004)
Toluene	µg/g	0.08	2.1	<	<(0.002)	<(0.002)
Ethylbenzene	µg/g	0.05	0.28	<	<(0.003)	<(0.003)
Xylenes (Total)	µg/g	0.07	25	<	<(0.002)	<(0.002)
PHC F1-BTEX (C6 - C10)	µg/g	5	180	<	<	<
PHC F2 (C10 - C16)	µg/g	10	250	<	<	<
PHC F3 (C16 - C34)	µg/g	50	800	<	<	<
PHC F4 (C34 - C50)	µg/g	50	5600	<	<	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "PHC" means petroleum hydrocarbons. ">" means greater than. "C10" notation means 10 (or corresponding number) carbon chain.

Table 2 - Soil Chemical Analysis
Petroleum Hydrocarbons (PHC)

Location				UST Excavation Floor Sample	UST Excavation Floor Sample	UST Excavation Backfill	UST Excavation South Wall	UST Excavation East Wall
Name				FS1	FS2	BF1	SW2	EW2
Depth (metres below ground level)				1.83	1.83	NA	1.5	1.5
Field Vapour Reading				45 ppm	5 ppm	ND	25 ppm	25 ppm
AGAT Analytical ID Number				792863	792864	792865	792866	792867
	Unit	MDL	Table 2[(A)]					
Benzene	µg/g	0.10	0.24	<	<	<	<	<
Toluene	µg/g	0.08	2.1	<	<	<	<	<
Ethylbenzene	µg/g	0.05	0.28	<	<	<	<	<
Xylenes (Total)	µg/g	0.07	25	<	<	0.12	<	<
PHC F1-BTEX (C6 - C10)	µg/g	5	180	<	<	<	<	<
PHC F2 (C10 - C16)	µg/g	10	250	<	<	<	<	<
PHC F3 (C16 - C34)	µg/g	50	800	<	<	<	<	<
PHC F4 (C34 - C50)	µg/g	50	5600	<	<	<	<	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "PHC" means petroleum hydrocarbons. ">" means greater than. "C10" notation means 10 (or corresponding number) carbon chain.

Table 3 - Soil Chemical Analysis
Metals and Inorganics

Location				Testpit 1	Testpit 2	Testpit 3	Testpit 4	Testpit 5
Name				TP1	TP2	TP3	TP4	TP5
Depth (metres below ground level)				0.4	0.6	0.45	0.5	0.45
AGAT Analytical ID Number				792842	792844	792845	792846	792847
	Unit	MDL	Table 2[(A)]					
Antimony	µg/g	1.6	13	<	<	<	<	<
Arsenic	µg/g	0.6	25	3.5	3.1	4	6.3	3.7
Barium	µg/g	0.3	1000	64.5	52.7	114	85.7	90.3
Beryllium	µg/g	0.4	1.2	0.7	0.7	0.8	0.8	0.9
Boron (Hot Water Extractable)	µg/g	0.10	1.5	0.64	0.66	0.2	0.33	0.2
Cadmium	µg/g	0.4	4.0	<	<	<	<	<
Chromium	µg/g	0.6	1000	18.2	19.5	19.5	21.3	19.3
Cobalt	µg/g	0.3	50	10.8	10.1	12.4	11.7	11.2
Copper	µg/g	0.3	200	21.5	18.2	12.4	50.1	17.5
Lead	µg/g	0.5	200	19.4	10.2	7	38.6	10
Molybdenum	µg/g	0.5	5.0	<	<	<	<	<
Nickel	µg/g	0.6	200	21.2	21.2	27.6	24.9	24.5
Selenium	µg/g	0.8	2.0	<	<	<	1.5	1.1
Silver	µg/g	0.4	25	<	<	<	<	<
Thallium	µg/g	0.4	4.1	<	<	<	<	<
Vanadium	µg/g	0.4	250	24.8	27.1	24.3	29.2	25.8
Zinc	µg/g	0.4	800	73.2	68	73.9	89.7	78.1
Chromium, Hexavalent	µg/g	0.40	10	<	<	<	<	<
Cyanide, Free	µg/g	1.0	100	<	<	<	<	<
Mercury	µg/g	0.011	10	0.059	0.024	<	0.085	0.016
Electrical Conductivity (2:1)	mS/cm	0.002	0.7	0.149	0.138	0.129	0.142	0.133
Sodium Adsorption Ratio	N/A	N/A	5.0	0.156	0.137	0.108	0.087	0.104
pH 2:1 Water:Soil Extraction	N/A	N/A		7.81	7.72	8.24	8.15	8.2

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Table 3 - Soil Chemical Analysis
Metals and Inorganics

Location				Shallow Sample 1	Shallow Sample 2	Shallow Sample 3	Shallow Sample 4	Shallow Sample 5	Shallow Sample 6	Shallow Sample 6
Name				SS1	SS2	SS3	SS4	SS5	SS6	DUP 1
Depth (metres below ground level)				0.1	0.1	0.1	0.1	0.1	0.1	0.1
AGAT Analytical ID Number				792848	792849	792851	792853	792857	792859	792861
	Unit	MDL	Table 2[(A)]							Duplicate of SS6
Antimony	µg/g	1.6	13	<	<	<	<	<	<	<
Arsenic	µg/g	0.6	25	8.2	14.5	15.8	14.7	4.5	6.6	4.5
Barium	µg/g	0.3	1000	82	59.9	63.6	81.6	79.1	84.7	78.4
Beryllium	µg/g	0.4	1.2	0.8	0.6	0.7	1	0.8	0.9	0.8
Boron (Hot Water Extractable)	µg/g	0.10	1.5	1.13	0.69	0.66	0.49	0.45	0.58	0.47
Cadmium	µg/g	0.4	4.0	<	<	<	<	<	<	<
Chromium	µg/g	0.6	1000	20.4	15.9	19.1	20.5	19.3	21.1	18.9
Cobalt	µg/g	0.3	50	7.3	8.9	9.8	11.6	9.5	9.4	9.5
Copper	µg/g	0.3	200	24.4	26.3	28.5	29.9	17	20.9	16.8
Lead	µg/g	0.5	200	43.9	58.8	55	52.6	18.6	26	18.3
Molybdenum	µg/g	0.5	5.0	<	<	<	<	<	<	<
Nickel	µg/g	0.6	200	18.6	17.7	21.4	24.7	18.7	21.2	18.4
Selenium	µg/g	0.8	2.0	<	0.8	1	0.9	<	0.9	<
Silver	µg/g	0.4	25	<	<	<	<	<	<	<
Thallium	µg/g	0.4	4.1	<	<	<	<	<	<	<
Vanadium	µg/g	0.4	250	28.3	22.5	27.1	28.7	28.6	30.8	28.3
Zinc	µg/g	0.4	800	84.9	90.7	77	88.3	75	87	73.6
Chromium, Hexavalent	µg/g	0.40	10	<	<	<	<	<	<	<
Cyanide, Free	µg/g	1.0	100	<	<	<	<	<	<	<
Mercury	µg/g	0.011	10	0.064	0.084	0.05	0.069	0.027	0.039	0.031
Electrical Conductivity (2:1)	mS/cm	0.002	0.7	0.424	0.206	0.117	0.152	0.372	0.196	0.378
Sodium Adsorption Ratio	N/A	N/A	5.0	0.518	0.062	0.082	0.059	0.181	0.123	0.177
pH 2:1 Water:Soil Extraction	N/A	N/A		7.25	6.9	6.81	7.45	7.09	6.97	7.12

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Table 4 - Soil Chemical Analysis
Organochlorine (OC) Pesticides

Location				Shallow Sample 1	Shallow Sample 2	Shallow Sample 3	Shallow Sample 4	Shallow Sample 5	Shallow Sample 6	Shallow Sample 6
Name				SS1	SS2	SS3	SS4	SS5	SS6	DUP 1
Depth (metres below ground level)				0.1	0.1	0.1	0.1	0.1	0.1	0.1
AGAT Analytical ID Number				792848	792849	792851	792853	792857	792859	792861
	Unit	MDL	Table 2[(A)]							Duplicate of SS6
Aldrin	µg/g	0.005	0.05	<	<	<	<	<	<	<
alpha - BHC	µg/g	0.005	NV	<	<	<	<	<	<	<
gamma-BHC (Lindane)	µg/g	0.005	0.41	<	<	<	<	<	<	<
Alpha-Chlordane	µg/g	0.005	NV	<	<	<	<	<	<	<
Gamma-Chlordane	µg/g	0.005	NV	<	<	<	<	<	<	<
Oxychlordane	µg/g	0.005	NV	<	<	<	<	<	<	<
Chlordane (Total)	µg/g	0.010	0.29	<	<	<	<	<	<	<
pp'-DDD	µg/g	0.005	2.2	0.008	0.04	0.014	0.017	<	<	<
op'-DDE	µg/g	0.005	NV	<	<	<	<	<	<	<
pp'-DDE	µg/g	0.005	NV	0.097	0.57	0.15	0.16	<	<	<
DDE (Total)	µg/g	0.005	1.6	0.097	0.57	0.15	0.16	<	<	<
op'-DDT	µg/g	0.005	NV	<	0.053	0.017	0.025	<	<	<
pp'- DDT	µg/g	0.005	NV	0.027	0.21	0.12	0.15	<	<	<
DDT (Total)	µg/g	0.010	1.6	0.027	0.26	0.14	0.18	<	<	<
Dieldrin	µg/g	0.005	0.05	<	<	<	<	<	<	<
Endrin	µg/g	0.005	0.05	<	<	<	<	<	<	<
Total Endosulfan	µg/g	0.005	0.18	<	<	<	<	<	<	<
Heptachlor	µg/g	0.005	0.12	<	<	<	<	<	<	<
Heptachlor Epoxide	µg/g	0.005	0.06	<	<	<	<	<	<	<
Methoxychlor	µg/g	0.005	4.0	<	<	<	<	<	<	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Table 5 - Ground Water Chemical Analysis
Volatile Organic Compounds (VOCs)

Location				Borehole BH 2
Name				BH2
AGAT Analytical ID Number				793617
	Unit	MDL	Table 2[(A)]	
Chloromethane	µg/L	0.40	NV	<
Vinyl Chloride	µg/L	0.17	1.3	<
Bromomethane	µg/L	0.20	10	<
Chloroethane	µg/L	0.20	NV	<
Trichlorofluoromethane	µg/L	0.40	NV	<
Acetone	µg/L	0.50	3000	<
1,1 Dichloroethene	µg/L	0.20	4.1	<
Methylene Chloride	µg/L	0.30	50	<
trans- 1,2-dichloroethylene	µg/L	0.20	100	<
Methyl tert-butyl ether	µg/L	0.20	700	<
1,1-Dichloroethane	µg/L	0.30	70	<
Methyl Ethyl Ketone	µg/L	0.90	350	<
cis- 1,2-Dichloroethylene	µg/L	0.20	70	<
Chloroform	µg/L	0.20	5.0	<
1,2 - Dichloroethane	µg/L	0.20	5.0	<
1,1,1-Trichloroethane	µg/L	0.30	200	<
Carbon Tetrachloride	µg/L	0.20	5.0	<
Benzene	µg/L	0.20	5.0	0.42
1,2-Dichloropropane	µg/L	0.20	5.0	<
Trichloroethylene	µg/L	0.20	50	<
Bromodichloromethane	µg/L	0.20	5.0	<
cis-1,3-Dichloropropene	ug/L	0.20	1.4	<
Methyl Isobutyl Ketone	µg/L	0.30	350	<
trans-1,3-Dichloropropene	µg/L	0.30	1.4	<
1,1,2-Trichloroethane	µg/L	0.20	5.0	<
Toluene	µg/L	0.20	24	0.56
2-Hexanone	µg/L	0.30	NV	<
Dibromochloromethane	µg/L	0.10	5.0	<
Ethylene Dibromide	µg/L	0.20	1.0	<
Tetrachloroethene	µg/L	0.10	5.0	<
1,1,1,2-Tetrachloroethane	µg/L	0.10	5.0	<
Chlorobenzene	µg/L	0.10	30	<
Ethylbenzene	µg/L	0.10	2.4	<
m & p-Xylene	µg/L	0.20	NV	<
Bromoform	µg/L	0.10	5.0	<
Styrene	µg/L	0.10	100	<
1,1,2,2-Tetrachloroethane	µg/L	0.10	1.0	<
o-Xylene	µg/L	0.10	NV	<
1,3-Dichlorobenzene	µg/L	0.10	630	<
1,4-Dichlorobenzene	µg/L	0.10	1.0	<
1,2-Dichlorobenzene	µg/L	0.10	3.0	<
1,2,4-Trichlorobenzene	µg/L	0.30	70	<
1,3-Dichloropropene (Cis + Trans)	µg/L	0.30	1.4	<
Xylenes (Total)	µg/L	0.20	300	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Table 6 - Ground Water Chemical Analysis
Petroleum Hydrocarbons (PHC)

Location				Borehole BH 1
Name				BH1
AGAT Analytical ID Number				799741
	Unit	MDL	Table 2[(A)]	
C6 - C16 (F1 + F2)	µg/L	100	1000	<
C>16 - C50 (F3 + F4)	µg/L	500	1000	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "PHC" means petroleum hydrocarbons. ">" means greater than. "C10" notation means 10 (or corresponding number) carbon chain.

APPENDIX A

AMEC SAMPLING PROTOCOLS

APPENDIX A

Soil and Groundwater Sampling, Inspection and Preservation Procedures

1. Soil Sampling Procedures

The soil sampling procedures used at the site are designed to maintain the integrity of the sample for field vapour readings and laboratory analysis. Although the technologist completing these procedures wore Nitrile gloves, the Nitrile does not contact the soil sample. In each of the procedures described below, cleaned stainless steel was the only material that came into contact with the soil samples while transferring the samples to the appropriate containers for laboratory analysis. This stainless steel equipment includes the split spoon sampler used in drilling as well as the regular sampling spoon used in all three procedures. The cleaning procedure is described below.

1) Loose dirt was removed from the spoon using a brush.

2) The spoon was washed with a brush in a dilute mix of potable water and Alconox soap.

3) The spoon was rinsed with distilled water.

4) The spoon was rinsed with methanol and allowed to air dry.

Direct Grab Sampling

Direct grab sampling is used to obtain soil samples when the technologist can access the soil surface directly. The soil surface may be the existing ground surface, a shallow test pit or the floor or wall of an excavation that can be entered safely. The sampling procedure is described below.

1) Using a shovel, a trowel or a spoon, the technologist digs at least ten centimetres into the soil surface.

2) A soil sample is taken from at least ten centimetres below the surface of the soil.

3) The sample is placed in a Ziploc bag. The Ziploc bag is filled to about ¼ full and then sealed shut with nominal headspace. The sample is brought to about 15^0C and vapour readings are taken as described in the following Section 2.

4) If a soil sample is required for laboratory analysis, a separate sample is taken from the same location using a cleaned stainless steel spoon and placed into the laboratory prepared containers that are immediately sealed and placed in a cooler.

APPENDIX A

Soil and Groundwater Sampling, Inspection and Preservation Procedures

Grab Sampling Using an Excavator Bucket

Grab sampling using an excavator bucket is used to obtain soil samples when it is not safe to enter an excavation or test pit. The sampling procedure is described below.

1) The excavator obtains a soil sample in the bucket of the excavator.

2) Using a shovel, trowel or spoon, the technician obtains a soil sample from the bucket of the excavator. The sample is taken from an area where the soil has not contacted the excavator bucket.

3) The sample is placed in a Ziploc bag. The Ziploc bag is filled to about ¼ full and then sealed shut with nominal headspace. The sample is brought to about 15^0C and vapour readings are taken as described in the following Section 2.

4) If a soil sample is required for laboratory analysis, a separate sample is taken from the same location using a cleaned stainless steel spoon and placed into the laboratory prepared containers, which are immediately sealed and placed in a cooler.

Split Spoon Sampling

Split spoon sampling was used to obtain soil samples while drilling. The sampling procedure is described below.

1) The drillers cleaned the split spoon according to the procedure outlined above.

2) The drillers obtained the split spoon sample by auguring to the specified depth, hammering the spoon about 0.6 metres into the soil and removing the spoon.

3) The split spoon was opened and the soil was inspected for evidence of significant petroleum impact.

4) If there was significant petroleum impact observed in the soil sample, then, using a cleaned stainless steel spoon, the sample was transferred from the split spoon into the laboratory prepared containers that were immediately sealed and placed in a cooler.

5) If there was any sample remaining, it was placed in a Ziploc bag. The Ziploc bag is filled up to about ¼ full and then sealed shut with nominal headspace. Vapour readings were taken as outlined in the following Section 2.

APPENDIX A

Soil and Groundwater Sampling, Inspection and Preservation Procedures

2. Soil Sample Preservation and Inspection Procedures

Each of the soil samples obtained using the above procedures was inspected in the field and preserved for laboratory analyses in the same way.

Each soil sample was immediately inspected for evidence of petroleum impact. The inspection was completed quickly so that the split sample could be transferred to the Ziploc bag and the laboratory prepared containers with minimal vapour loss.

A more detailed inspection of the soil sample was completed using any remaining sample after the sample containers had been filled. If there was no remaining soil then the sample from the Ziploc bag was inspected in more detail after the vapour reading had been taken.

Each sample was inspected for petroleum odours, staining, sheen or liquid petroleum. Also, the soil properties are noted including soil type, texture, colour and density.

Soil vapour concentrations were measured once the bagged samples had been allowed to equilibrate for thirty minutes. The vapour readings were taken using a Gastech Model 1238 ME in “Methane Elimination” mode. The instrument operates in either the parts per million (ppm) or percent of lower explosive (%LEL) mode. The instrument was calibrated daily in each mode using two pre-analyzed mixtures of hexane gas in air. The vapour readings were taken by inserting the probe into the bag.

The samples that were bottled for laboratory analysis were immediately labelled, placed in a cooler with ice and covered with ice. This method brings the temperature of the samples to below 10^0C within a few hours (and normally below 4^0C). The ice is checked regularly and replenished as required between the time that the sample is placed in the cooler and the time that the samples are shipped. The samples were shipped to the laboratory within two days of sampling. A custody seal was placed on the cooler at the point of shipment and a chain of custody form was included with the sample shipment.

APPENDIX A

Soil and Groundwater Sampling, Inspection and Preservation Procedures

3. Ground Water Sampling and Preservation Procedures

The ground water samples were obtained using groundwater monitors installed in selected boreholes. The monitors were constructed of two inch Schedule 40 PVC flush-threaded pipe. The pipe was pre-slotted, cleaned and sealed in individual plastic wraps by the manufacturer. The monitors were installed with locking caps and protective flush mounted covers.

The ground water samples were obtained using dedicated sampling equipment that consisted of new Waterra bailers that were sealed in plastic wraps by the manufacturer. Dedicated sampling equipment was installed in each borehole.

Prior to taking each water sample, the water level was measured in each monitor using an interface probe. The priority of the water level readings was to measure the least impacted boreholes first and the most impacted boreholes last. Before each water level measurement, the interface probe was cleaned using the following procedure:

1) The probe was washed with a brush and dipped in a dilute mix of potable water and Alconox soap.

2) The probe was rinsed with distilled water

3) The probe was rinsed with methanol and allowed to air dry.

Ground water samples were not taken in monitors that contained liquid petroleum.

Based on the depth to the water level in the monitor, the volume of the water column in the monitor (including the sand-pack) was calculated. Water was removed from the monitor until three times the calculated volume of water in the monitor had been removed or until the monitor was empty.

The water samples were then taken using the dedicated sampling equipment and were poured into the laboratory prepared containers. The samples for analysis of lead were filtered in the field using new, dedicated filters.

The labelled sample containers were immediately placed into coolers with ice and shipped to the laboratory within one day of sampling. A custody seal was placed on the cooler at the point of shipment and a chain of custody form was included with the sample shipment.

4. QA/QC Procedures

The field QA/QC program included the use of a chain of custody for all soil and groundwater samples, custody seals for coolers used to transport samples and sample duplicates, blanks and spike blanks. The QA/QC samples were taken based on the schedule below.

- Soil sample duplicates: one in ten samples for all parameters.
- Groundwater field duplicates: one in ten samples for all parameters per sampling event.
- Groundwater travel blanks: one sample for all parameters per sampling event.
- Groundwater field blanks: one sample for all parameters per sampling event.
- Groundwater spiked trip blanks: one sample for all parameters per sampling event.

The above schedule is based on and exceeds the requirements described in Table 7.1A of the Ontario Ministry of the Environment's "*Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* dated December 1996.

APPENDIX B

BOREHOLE LOGS

RECORD OF BOREHOLE No 1

1 OF 1

PROJECT Phase II Environmental Site Assessment | LOCATION 237 Dundas Street West, Oakville, Ontario | ORIGINATED BY JW

CLIENT Mattamy Development Corporation | COMPILED BY JW

JOB NO. TT7305501 | DATE 12 September 2007 | EQUIPMENT | CHECKED BY JC

ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES NUMBER	SAMPLES TYPE	SAMPLES "N" VALUES	GROUND WATER CONDITIONS	DEPTH (m)	OBSERVATIONS & REMARKS
0.0 / 0.1	**TOPSOIL** Brown, no odours or staining.							
	SILTY CLAY TILL Light brown to brown, trace gravels and shale pieces. No odours or staining.		1	SS	16			
			2	SS	38		1	
			3	SS	45		2	
			4	SS	42		3	
-3.2 / 3.2	**SHALE** Red, dry, No odours or staining.		5	SS	50 for 10 cm			Soil sample BH1-5 submitted for BTEX and PHC (F1-F4).
			6	AUGER			4	Ground water sample BH1 submitted for VOCs and PHC (F1-F4).
			7	AUGER			5	Water level at 4.68 mbgs on September 19, 2007.
-5.5 / 5.5	**BOREHOLE TERMINATED**		8	AUGER				**Well Details:** 32mm diameter slotted PVC pipe with sand pack (2.13 to 5.49m), bentonite plug above sand pack, flush-mounted casing set in concrete and locking j-plug.

STANDARD PENETRATION TEST □
DYNAMIC PENETRATION TEST ■
20 40 60 80 100
SHEAR STRENGTH (kPa)
○ UNCONFINED ▲ FIELD VANE
● QUICK TRIAXIAL ✪ LAB VANE
20 40 60 80 100

▼ Total Organic Vapour % LEL
20 40 60 80
● Total Organic Vapour ppm
100 200 300 400

30
25
75
50
500
10
20
20

RECORD OF BOREHOLE No 2

1 OF 1

PROJECT Phase II Environmental Site Assessment | LOCATION 237 Dundas Street West, Oakville, Ontario | ORIGINATED BY JW

CLIENT Mattamy Development Corporation | COMPILED BY JW

JOB NO. TT7305501 | DATE 12 September 2007 | EQUIPMENT | CHECKED BY JC

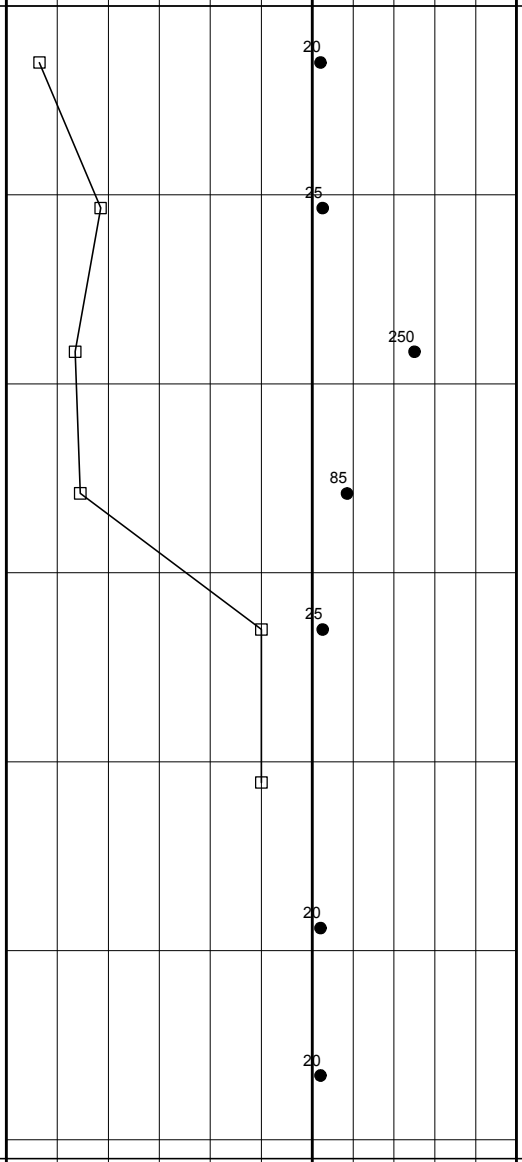
ELEV / DEPTH	DESCRIPTION	STRAT PLOT	SAMPLES: NUMBER	SAMPLES: TYPE	SAMPLES: "N" VALUES	GROUND WATER CONDITIONS	DEPTH (m)	OBSERVATIONS & REMARKS
0.0 / 0.1	**TOPSOIL** Brown, no odours or staining.							
	SILTY CLAY TILL Light brown to brown, trace gravels and shale pieces. No odours or staining.		1	SS	13		0	
			2	SS	37		1	
			3	SS	27		2	Soil sample BH2-3 submitted for VOCs and PHC (F1-F4).
			4	SS	29		3	
-3.5			5	SS	50 for 7.6 cm			
3.5	**SHALE** Red, dry, No odours or staining.		6	NR	50 for 2.5		4	
			7	AUGER			5	
			8	AUGER				No ground water present on September 19, 2007.
-6.1							6	
6.1	**BOREHOLE TERMINATED**							**Well Details:** 32mm diameter slotted PVC pipe with sand pack (2.74 to 6.1m), bentonite plug above sand pack, flush-mounted casing set in concrete and locking j-plug.

STANDARD PENETRATION TEST □
DYNAMIC PENETRATION TEST ■
20 40 60 80 100

SHEAR STRENGTH (kPa)
○ UNCONFINED ▲ FIELD VANE
● QUICK TRIAXIAL ✪ LAB VANE
20 40 60 80 100

▼ Total Organic Vapour % LEL
20 40 60 80

● Total Organic Vapour ppm
100 200 300 400



APPENDIX C

TEST PIT LOGS

Job No.: TT7305501 **TEST PIT INVESTIGATION**

Date : 11 September 2007

TEST PIT LOG: TP1

Sample Number	Depth in metres	Comments (odour, staining, moisture, etc)	Stratigraphy	
			Depth (metres)	Material Description
		Brown, moist.	0.0 - 0.2	Topsoil
TP1	0.40	Red to brown, no odours, no staining.	0.2 - 1.2	Silty clay fill
		Reddish brown, no odours, no staining.	1.2 - 2.2	Silty clay till (native)
		Test pit terminated at 2.2 mbgs.		

Site: 237 Dundas Street West, Oakville, Ontario

Originated by: JW
Compiled By: JW
Checked By: JC

Job No.: TT7305501 **TEST PIT INVESTIGATION**

Date : 11 September 2007

TEST PIT LOG: TP2

Sample Number	Depth in metres	Comments (odour, staining, moisture, etc)	Stratigraphy	
			Depth (metres)	Material Description
		Brown, moist.	0.0 - 0.45	Topsoil
TP2	0.60	Red to brown, no odours, no staining, rootlets at 1.4 mbgs.	0.45 - 1.4	Silty clay fill
		Reddish brown, no odours, no staining.	1.4 - 2.0	Silty clay till (native)
		Test pit terminated at 2.0 mbgs.		

Job No.: TT7305501 **TEST PIT INVESTIGATION**

Date : 11 September 2007

TEST PIT LOG: TP3

Sample Number	Depth in metres	Comments (odour, staining, moisture, etc)	Stratigraphy	
			Depth (metres)	Material Description
		Brown, moist.	0.0 - 0.35	Topsoil
TP3	0.45	Red, no odours, no staining.	0.35 - 2.3	Weathered shale fill
		Grey to black, rootlets, soft, no odours, no staining.	2.3 - 2.5	Silty clay (native)
		Test pit terminated at 2.5 mbgs.		

Job No.: TT7305501 **TEST PIT INVESTIGATION**

Date : 11 September 2007

TEST PIT LOG: TP4

Sample Number	Depth in metres	Comments (odour, staining, moisture, etc)	Stratigraphy	
			Depth (metres)	Material Description
		Brown, moist.	0.0 - 0.25	Topsoil
TP4	0.50	Red, no odours, no staining, brick fragments.	0.25 – 2.0	Weathered shale fill
		Grey to black, organic rich, soft, organic odours, no staining.	2.0 - 2.65	Silty clay (native)
		Grey to dark brown, no odours, no staining.	2.65 – 2.85	Silty clay till (native)
		Test pit terminated at 2.85 mbgs.		

Job No.: TT7305501 **TEST PIT INVESTIGATION**

Date : 11 September 2007

TEST PIT LOG: TP5

Sample Number	Depth in metres	Comments (odour, staining, moisture, etc)	Stratigraphy	
			Depth (metres)	Material Description
		Brown, moist.	0.0 - 0.25	Topsoil
TP5	0.45	Red, no odours, no staining.	0.25 – 2.3	Weathered shale fill
		Black, organic rich, soft, organic odours, no staining.	2.3 - 2.55	Silty clay (native)
		Grey to dark brown, no odours, no staining.	2.55 – 2.8	Silty clay till (native)
		Test pit terminated at 2.8 mbgs.		

APPENDIX D

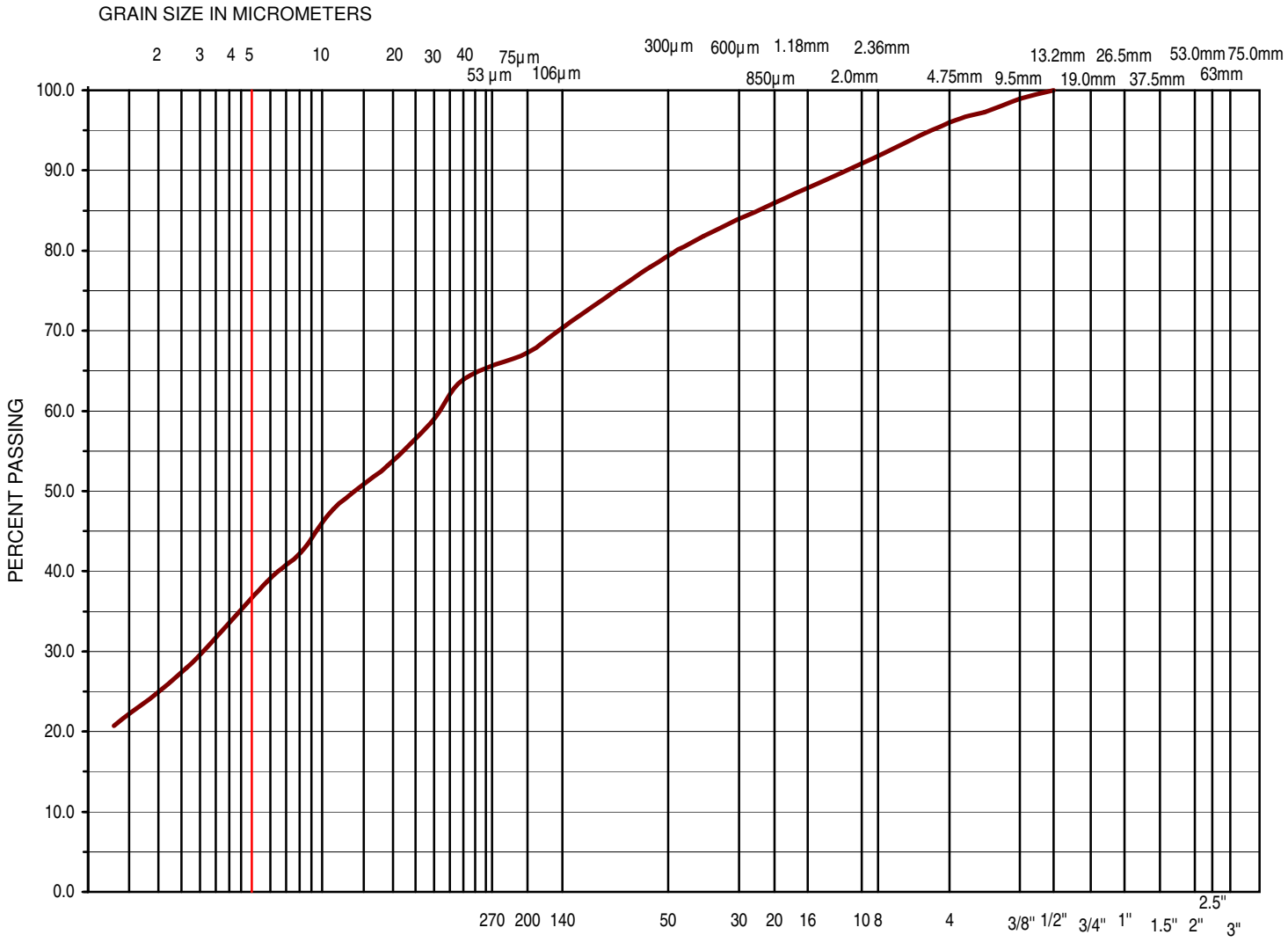
GRAIN SIZE ANALYSIS

UNIFIED SOIL CLASSIFICATION SYSTEM

Enclosure: 1

CLAY	SILT	SAND			GRAVEL	
					Fine	Coarse

MINISTRY SIEVE DESIGNATION



Particle Size	Percent Passing
75	100.0
63	100.0
37.5	100.0
26.5	100.0
19	100.0
16	100.0
13.2	100.0
9.5	98.9
6.7	97.3
4.75	96.0
2	90.9
0.85	85.97
0.425	81.79
0.25	77.97
0.106	70.34
0.075	67.25
0.0403	63.94
0.0292	58.54
0.0189	53.13
0.0112	47.73
0.0081	42.33
0.0058	38.72
0.0026	27.92
0.0013	20.71

amec

GRAIN SIZE DISTRIBUTION

Clayey, Sandy Silt, Trace Gravel

Mattamy - Dundas St. West and 6th Line

Lab No. S2225 **TT7305501** **25 Sept. 2007**

Prepared: T.Hawkins, EMT

Checked: J. Wakani

APPENDIX E

LABORATORY CERTIFICATES OF ANALYSIS

AGAT® Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 07H240377

PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg 153 - Volatile Organic Compounds in Soil

DATE SAMPLED: Sep 12, 2007 | **DATE RECEIVED: Sep 13, 2007** | **DATE REPORTED: Sep 14, 2007** | **SAMPLE TYPE: Soil**

	Unit	G / S	M.D.L	BH2-SS3 793617	DUP 3 793619
Chloromethane	µg/g		0.010	<0.010	<0.010
Vinyl Chloride	µg/g	0.0075	0.003	<0.003	<0.003
Bromomethane	µg/g	0.38	0.009	<0.009	<0.009
Chloroethane	µg/g		0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g		0.003	<0.003	<0.003
Acetone	µg/g	3.5	0.074	<0.074	<0.074
1,1-Dichloroethylene	µg/g	0.015	0.002	<0.002	<0.002
Methylene Chloride	µg/g	1.1	0.007	<0.007	<0.007
TRANS-1,2-Dichloroethylene	µg/g	4.1	0.005	<0.005	<0.005
Methyl tert-butyl Ether	µg/g	5.7	0.005	<0.005	<0.005
1,1-Dichloroethane	µg/g	3.0	0.006	<0.006	<0.006
Methyl Ethyl Ketone	µg/g	0.27	0.044	<0.044	<0.044
CIS 1,2-Dichloroethylene	µg/g	2.3	0.006	<0.006	<0.006
Chloroform	µg/g	0.13	0.009	<0.009	<0.009
1,2- Dichloroethane	µg/g	0.05	0.003	<0.003	<0.003
1,1,1-Trichloroethane	µg/g	34	0.003	<0.003	<0.003
Carbon Tetrachloride	µg/g	0.64	0.004	<0.004	<0.004
Benzene	µg/g	0.24	0.004	<0.004	<0.004
1,2-Dichloropropane	µg/g	0.12	0.004	<0.004	<0.004
Trichloroethylene	µg/g	3.9	0.005	<0.005	<0.005
Bromodichloromethane	µg/g	0.12	0.004	<0.004	<0.004
CIS-1,3-Dichloropropene	µg/g		0.004	<0.004	<0.004
Methyl Isobutyl Ketone	µg/g	0.48	0.018	<0.018	<0.018
TRANS-1,3-Dichloropropene	µg/g		0.002	<0.002	<0.002
1,1,2-Trichloroethane	µg/g	0.28	0.005	<0.005	<0.005
Toluene	µg/g	2.1	0.002	<0.002	<0.002
2-Hexanone	µg/g		0.021	<0.021	<0.021
Dibromochloromethane	µg/g	0.09	0.004	<0.004	<0.004
Ethylene Dibromide	µg/g	0.01	0.004	<0.004	<0.004
Tetrachloroethylene	µg/g	0.45	0.004	<0.004	<0.004
1,1,1,2-Tetrachloroethane	µg/g	0.12	0.004	<0.004	<0.004

Certified By:

AGAT® Laboratories

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Certificate of Analysis

AGAT WORK ORDER: 07H240377

PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg 153 - Volatile Organic Compounds in Soil

DATE SAMPLED: Sep 12, 2007 | **DATE RECEIVED: Sep 13, 2007** | **DATE REPORTED: Sep 14, 2007** | **SAMPLE TYPE: Soil**

	Unit	G / S	M.D.L	BH2-SS3 793617	DUP 3 793619
Chlorobenzene	µg/g	2.4	0.004	<0.004	<0.004
Ethylbenzene	µg/g	0.28	0.003	<0.003	<0.003
m & p-Xylene	µg/g		0.002	<0.002	<0.002
Bromoform	µg/g	0.11	0.004	<0.004	<0.004
Styrene	µg/g	1.7	0.002	<0.002	<0.002
1,1,2,2- Tetrachloroethane	µg/g	0.01	0.002	<0.002	<0.002
o-Xylene	µg/g		0.002	<0.002	<0.002
1,3-Dichlorobenzene	µg/g	30	0.004	<0.004	<0.004
1,4-Dichlorobenzene	µg/g	0.32	0.005	<0.005	<0.005
1,2-Dichlorobenzene	µg/g	0.88	0.004	<0.004	<0.004
1,2,4-Trichlorobenzene	µg/g	30	0.007	<0.007	<0.007
1,3-Dichloropropene (Cis + Trans)	µg/g	0.04	0.004	<0.004	<0.004
Xylenes (Total)	µg/g	25	0.002	<0.002	<0.002

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG-MFT)

793617
Toluene-d8 Surrogate Recovery: 114%
4-Bromofluorobenzene Surrogate Recovery: 96%
Results are based on the dry weight of the soil.
Percent Moisture = 11.47 %.
Results relate only to the items tested.

793619
Toluene-d8 Surrogate Recovery: 109%
4-Bromofluorobenzene Surrogate Recovery: 87%
Results are based on the dry weight of the soil.
Percent Moisture = 12.48 %.
Results relate only to the items tested.

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 07H240377

PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg. 153 - Petroleum Hydrocarbons F1 - F4 (C6 - C50) in Soil

DATE SAMPLED: Sep 12, 2007 | **DATE RECEIVED: Sep 13, 2007** | **DATE REPORTED: Sep 14, 2007** | **SAMPLE TYPE: Soil**

	Unit	G / S	M.D.L	BH1-SS5 793616
Benzene	µg/g	0.24	0.10	<0.10
Toluene	µg/g	2.1	0.08	<0.08
Ethylbenzene	µg/g	0.28	0.05	<0.05
Xylenes (Total)	µg/g	25	0.07	<0.07
C6 - C10 (F1)	µg/g	180	5	<5
C6 - C10 (F1 minus BTEX)	µg/g	180	5	<5
C>10 - C16 (F2)	µg/g	250	10	<10
C>16 - C34 (F3)	µg/g	800	50	<50
C>34 - C50 (F4)	µg/g	5600	50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA
Moisture Content	%		0.1	5.6

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG-MFT)

793616
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.
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.

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 07H240377

PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg. 153 - Petroleum Hydrocarbons F1 - F4 (C6 - C50) in Soil

DATE SAMPLED: Sep 12, 2007 | **DATE RECEIVED: Sep 13, 2007** | **DATE REPORTED: Sep 14, 2007** | **SAMPLE TYPE: Soil**

	Unit	G / S	M.D.L	BH2-SS3 793617	DUP 3 793619
C6 - C10 (F1)	µg/g		5	<5	<5
C6 - C10 (F1 minus BTEX)	µg/g	30	5	<5	<5
C>10 - C16 (F2)	µg/g	150	10	<10	<10
C>16 - C34 (F3)	µg/g	400	50	<50	<50
C>34 - C50 (F4)	µg/g	2800	50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA
Moisture Content	%		0.1	11.5	12.5

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG)

793617-793619 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.
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.
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.

Certified By:

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Certificate of Analysis

AGAT WORK ORDER: 07T240227
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg. 153 Metals & Inorganics in Soil

DATE SAMPLED: Sep 11, 2007 | DATE RECEIVED: Sep 12, 2007 | DATE REPORTED: Sep 17, 2007 | SAMPLE TYPE: Soil

	Unit	G / S	M.D.L	TP1 792842	TP2 792844	TP3 792845	TP4 792846	TP5 792847	SS1 792848	SS2 792849	SS3 792851
Antimony	µg/g	13	1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6	<1.6
Arsenic	µg/g	25	0.6	3.5	3.1	4.0	6.3	3.7	8.2	14.5	15.8
Barium	µg/g	1000	0.3	64.5	52.7	114	85.7	90.3	82.0	59.9	63.6
Beryllium	µg/g	1.2	0.4	0.7	0.7	0.8	0.8	0.9	0.8	0.6	0.7
Boron (Hot Water Extractable)	µg/g	1.5	0.10	0.64	0.66	0.20	0.33	0.20	1.13	0.69	0.66
Cadmium	µg/g	4.0	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Chromium	µg/g	1000	0.6	18.2	19.5	19.5	21.3	19.3	20.4	15.9	19.1
Cobalt	µg/g	50	0.3	10.8	10.1	12.4	11.7	11.2	7.3	8.9	9.8
Copper	µg/g	200	0.3	21.5	18.2	12.4	50.1	17.5	24.4	26.3	28.5
Lead	µg/g	200	0.5	19.4	10.2	7.0	38.6	10.0	43.9	58.8	55.0
Molybdenum	µg/g	5.0	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	200	0.6	21.2	21.2	27.6	24.9	24.5	18.6	17.7	21.4
Selenium	µg/g	2.0	0.8	<0.8	<0.8	<0.8	1.5	1.1	<0.8	0.8	1.0
Silver	µg/g	25	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Thallium	µg/g	4.1	0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
Vanadium	µg/g	250	0.4	24.8	27.1	24.3	29.2	25.8	28.3	22.5	27.1
Zinc	µg/g	800	0.4	73.2	68.0	73.9	89.7	78.1	84.9	90.7	77.0
Chromium, Hexavalent	µg/g	10	0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40
Cyanide, Free	µg/g	100	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Mercury	µg/g	10	0.011	0.059	0.024	<0.011	0.085	0.016	0.064	0.084	0.050
Electrical Conductivity (2:1)	mS/cm	0.7	0.002	0.149	0.138	0.129	0.142	0.133	0.424	0.206	0.117
Sodium Adsorption Ratio	N/A	5.0	N/A	0.156	0.137	0.108	0.087	0.104	0.518	0.062	0.082
pH 2:1 Water:Soil Extraction	N/A		N/A	7.81	7.72	8.24	8.15	8.20	7.25	6.90	6.81

Certified By: Jonathy Takeuchi

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Certificate of Analysis

AGAT WORK ORDER: 07T240227
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg. 153 Metals & Inorganics in Soil

DATE SAMPLED: Sep 11, 2007 | DATE RECEIVED: Sep 12, 2007 | DATE REPORTED: Sep 17, 2007 | SAMPLE TYPE: Soil

	Unit	G / S	M.D.L	SS4 792853	SS5 792857	SS6 792859	DUP 1 792861
Antimony	µg/g	13	1.6	<1.6	<1.6	<1.6	<1.6
Arsenic	µg/g	25	0.6	14.7	4.5	6.6	4.5
Barium	µg/g	1000	0.3	81.6	79.1	84.7	78.4
Beryllium	µg/g	1.2	0.4	1.0	0.8	0.9	0.8
Boron (Hot Water Extractable)	µg/g	1.5	0.10	0.49	0.45	0.58	0.47
Cadmium	µg/g	4.0	0.4	<0.4	<0.4	<0.4	<0.4
Chromium	µg/g	1000	0.6	20.5	19.3	21.1	18.9
Cobalt	µg/g	50	0.3	11.6	9.5	9.4	9.5
Copper	µg/g	200	0.3	29.9	17.0	20.9	16.8
Lead	µg/g	200	0.5	52.6	18.6	26.0	18.3
Molybdenum	µg/g	5.0	0.5	<0.5	<0.5	<0.5	<0.5
Nickel	µg/g	200	0.6	24.7	18.7	21.2	18.4
Selenium	µg/g	2.0	0.8	0.9	<0.8	0.9	<0.8
Silver	µg/g	25	0.4	<0.4	<0.4	<0.4	<0.4
Thallium	µg/g	4.1	0.4	<0.4	<0.4	<0.4	<0.4
Vanadium	µg/g	250	0.4	28.7	28.6	30.8	28.3
Zinc	µg/g	800	0.4	88.3	75.0	87.0	73.6
Chromium, Hexavalent	µg/g	10	0.40	<0.40	<0.40	<0.40	<0.40
Cyanide, Free	µg/g	100	1.0	<1.0	<1.0	<1.0	<1.0
Mercury	µg/g	10	0.011	0.069	0.027	0.039	0.031
Electrical Conductivity (2:1)	mS/cm	0.7	0.002	0.152	0.372	0.196	0.378
Sodium Adsorption Ratio	N/A	5.0	N/A	0.059	0.181	0.123	0.177
pH 2:1 Water:Soil Extraction	N/A		N/A	7.45	7.09	6.97	7.12

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG-MFT)

Certified By: Jonathy Takeuchi

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Certificate of Analysis

AGAT WORK ORDER: 07T240227
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg 153 - OC Pesticides [soil]

DATE SAMPLED: Sep 11, 2007 | DATE RECEIVED: Sep 12, 2007 | DATE REPORTED: Sep 17, 2007 | SAMPLE TYPE: Soil

	Unit	G / S	M.D.L	SS1 792848	SS2 792849	SS3 792851	SS4 792853	SS5 792857	SS6 792859	DUP 1 792861
Aldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
alpha - BHC	µg/g		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
gamma-BHC (Lindane)	µg/g	0.41	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Alpha-Chlordane	µg/g		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Gamma-Chlordane	µg/g		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Oxychlordane	µg/g		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Chlordane (Total)	µg/g	0.29	0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
pp'-DDD	µg/g	2.2	0.005	0.008	0.040	0.014	0.017	<0.005	<0.005	<0.005
op'-DDE	µg/g		0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
pp'-DDE	µg/g		0.005	0.097	0.57	0.15	0.16	<0.005	<0.005	<0.005
DDE (Total)	µg/g	1.6	0.005	0.097	0.57	0.15	0.16	<0.005	<0.005	<0.005
op'-DDT	µg/g		0.005	<0.005	0.053	0.017	0.025	<0.005	<0.005	<0.005
pp'- DDT	µg/g		0.005	0.027	0.21	0.12	0.15	<0.005	<0.005	<0.005
DDT (Total)	µg/g	1.6	0.010	0.027	0.26	0.14	0.18	<0.010	<0.010	<0.010
Dieldrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Endrin	µg/g	0.05	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Total Endosulfan	µg/g	0.18	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor	µg/g	0.12	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Heptachlor Epoxide	µg/g	0.06	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Methoxychlor	µg/g	4.0	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

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Certificate of Analysis

AGAT WORK ORDER: 07T240227
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg 153 - OC Pesticides [soil]

DATE SAMPLED: Sep 11, 2007 | DATE RECEIVED: Sep 12, 2007 | DATE REPORTED: Sep 17, 2007 | SAMPLE TYPE: Soil

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG-MFT)

792848	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 91 %. Percent moisture= 15.68 %. Results relate only to the items tested.
792849	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 103 %. Percent moisture= 11.73 %. Results relate only to the items tested.
792851	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 86 %. Percent moisture= 12.57 %. Results relate only to the items tested.
792853	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 94 %. Percent moisture= 12.09 %. Results relate only to the items tested.
792857	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 87 %. Percent moisture= 11.18 %. Results relate only to the items tested.
792859	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 87 %. Percent moisture= 16.15 %. Results relate only to the items tested.
792861	Results are based on the dry weight of the soil. Decachlorobiphenyl Surrogate Recovery: 86 %. Percent moisture= 11.26 %. Results relate only to the items tested.

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AGAT WORK ORDER: 07T240227
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg. 153 - Petroleum Hydrocarbons F1 - F4 (C6 - C50) in Soil

DATE SAMPLED: Sep 11, 2007 | DATE RECEIVED: Sep 12, 2007 | DATE REPORTED: Sep 17, 2007 | SAMPLE TYPE: Soil

	Unit	G / S	M.D.L	FS1 792863	FS2 792864	BF1 792865	SW2 792866	EW2 792867
Benzene	µg/g	0.24	0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Toluene	µg/g	2.1	0.08	<0.08	<0.08	<0.08	<0.08	<0.08
Ethylbenzene	µg/g	0.28	0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Xylenes (Total)	µg/g	25	0.07	<0.07	<0.07	0.12	<0.07	<0.07
C6 - C10 (F1)	µg/g	180	5	<5	<5	<5	<5	<5
C6 - C10 (F1 minus BTEX)	µg/g	180	5	<5	<5	<5	<5	<5
C>10 - C16 (F2)	µg/g	250	10	<10	<10	<10	<10	<10
C>16 - C34 (F3)	µg/g	800	50	<50	<50	<50	<50	<50
C>34 - C50 (F4)	µg/g	5600	50	<50	<50	<50	<50	<50
Gravimetric Heavy Hydrocarbons	µg/g		50	NA	NA	NA	NA	NA
Moisture Content	%		0.1	19.2	21.2	8.9	8.3	8.1

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(AG-MFT)

792863-792867 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.
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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AGAT WORK ORDER: 07T241360
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Reg 153 Petroleum Hydrocarbon F1 - F4 in Water

DATE SAMPLED: Sep 19, 2007 | DATE RECEIVED: Sep 20, 2007 | DATE REPORTED: Sep 27, 2007 | SAMPLE TYPE: Water

	Unit	G / S	M.D.L	BH1 799741	FIELD BLANK 799743	TRIP BLANK 799744
C6 - C10 (F1)	µg/L		100	<100	<100	<100
C6 - C10 (F1 minus BTEX)	µg/L		100	<100	<100	<100
C>10 - C16 (F2)	µg/L		100	<100	<100	<100
C6 - C16 (F1 + F2)	µg/L	1000	100	<100	<100	<100
C>16 - C34 (F3)	µg/L		500	<500	<500	<500
C>34 - C50	µg/L		500	<500	<500	<500
C>16 - C50 (F3 + F4)	µg/L	1000	500	<500	<500	<500
Gravimetric Heavy Hydrocarbons	µg/L		500	NA	NA	NA

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(PGW,MFT)

799741-799744 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.
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.
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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AGAT WORK ORDER: 07T241360
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Regulation 153 - Volatile Organic Compounds in Water

DATE SAMPLED: Sep 19, 2007 | DATE RECEIVED: Sep 20, 2007 | DATE REPORTED: Sep 27, 2007 | SAMPLE TYPE: Water

	Unit	G / S	M.D.L	BH1 799741	FIELD BLANK 799743	TRIP BLANK 799744
Chloromethane	µg/L		0.40	<0.40	<0.40	<0.40
Vinyl Chloride	µg/L	1.3	0.17	<0.17	<0.17	<0.17
Bromomethane	µg/L	10	0.20	<0.20	<0.20	<0.20
Chloroethane	µg/L		0.20	<0.20	<0.20	<0.20
Trichlorofluoromethane	µg/L		0.40	<0.40	<0.40	<0.40
Acetone	µg/L	3000	0.50	<0.50	<0.50	<0.50
1,1 Dichloroethene	µg/L		0.20	<0.20	<0.20	<0.20
Methylene Chloride	µg/L	50	0.30	<0.30	<0.30	<0.30
trans- 1,2-dichloroethylene	µg/L		0.20	<0.20	<0.20	<0.20
Methyl tert-butyl ether	µg/L	700	0.20	<0.20	<0.20	<0.20
1,1-Dichloroethane	µg/L	70	0.30	<0.30	<0.30	<0.30
Methyl Ethyl Ketone	µg/L	350	0.90	<0.90	<0.90	<0.90
cis- 1,2-Dichloroethylene	µg/L	70	0.20	<0.20	<0.20	<0.20
Chloroform	µg/L	5.0	0.20	<0.20	<0.20	<0.20
1,2 - Dichloroethane	µg/L	5.0	0.20	<0.20	<0.20	<0.20
1,1,1-Trichloroethane	µg/L	200	0.30	<0.30	<0.30	<0.30
Carbon Tetrachloride	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Benzene	µg/L	5.0	0.20	0.42	<0.20	<0.20
1,2-Dichloropropane	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Trichloroethylene	µg/L	50	0.20	<0.20	<0.20	<0.20
Bromodichloromethane	µg/L	5.0	0.20	<0.20	<0.20	<0.20
cis-1,3-Dichloropropene	ug/L		0.20	<0.20	<0.20	<0.20
Methyl Isobutyl Ketone	µg/L	350	0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene	µg/L		0.30	<0.30	<0.30	<0.30
1,1,2-Trichloroethane	µg/L	5.0	0.20	<0.20	<0.20	<0.20
Toluene	µg/L	24	0.20	0.56	<0.20	<0.20
2-Hexanone	µg/L		0.30	<0.30	<0.30	<0.30
Dibromochloromethane	µg/L	5.0	0.10	<0.10	<0.10	<0.10
Ethylene Dibromide	µg/L	1.0	0.20	<0.20	<0.20	<0.20
Tetrachloroethene	µg/L	5.0	0.10	<0.10	<0.10	<0.10
1,1,1,2-Tetrachloroethane	µg/L	5.0	0.10	<0.10	<0.10	<0.10

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AGAT WORK ORDER: 07T241360
PROJECT NO: TT7305501

CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Regulation 153 - Volatile Organic Compounds in Water

DATE SAMPLED: Sep 19, 2007 | DATE RECEIVED: Sep 20, 2007 | DATE REPORTED: Sep 27, 2007 | SAMPLE TYPE: Water

	Unit	G / S	M.D.L	BH1 799741	FIELD BLANK 799743	TRIP BLANK 799744
Chlorobenzene	µg/L	30	0.10	<0.10	<0.10	<0.10
Ethylbenzene	µg/L	2.4	0.10	<0.10	<0.10	<0.10
m & p-Xylene	µg/L		0.20	<0.20	<0.20	<0.20
Bromoform	µg/L	5.0	0.10	<0.10	<0.10	<0.10
Styrene	µg/L	100	0.10	<0.10	<0.10	<0.10
1,1,2,2-Tetrachloroethane	µg/L	1.0	0.10	<0.10	<0.10	<0.10
o-Xylene	µg/L		0.10	<0.10	<0.10	<0.10
1,3-Dichlorobenzene	µg/L	630	0.10	<0.10	<0.10	<0.10
1,4-Dichlorobenzene	µg/L	1.0	0.10	<0.10	<0.10	<0.10
1,2-Dichlorobenzene	µg/L	3.0	0.10	<0.10	<0.10	<0.10
1,2,4-Trichlorobenzene	µg/L	70	0.30	<0.30	<0.30	<0.30
1,3-Dichloropropene (Cis + Trans)	µg/L	1.4	0.30	<0.30	<0.30	<0.30
Xylenes (Total)	µg/L	300	0.20	<0.20	<0.20	<0.20

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard: Refers to T2(PGW,MFT)

799741 Results relate only to the items tested.
Surrogate Recovery for Toluene-d8:106 %
Surrogate Recovery for 4-Bromofluorobenzene:78 %

799743 Results relate only to the items tested.
Surrogate Recovery for Toluene-d8:123 %
Surrogate Recovery for 4-Bromofluorobenzene:87 %

799744 Results relate only to the items tested.
Surrogate Recovery for Toluene-d8:114 %
Surrogate Recovery for 4-Bromofluorobenzene:85 %

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CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Regulation 153 - Volatile Organic Compounds in Water (% Recovery)

DATE SAMPLED: Sep 18, 2007 | DATE RECEIVED: Sep 20, 2007 | DATE REPORTED: Sep 27, 2007 | SAMPLE TYPE: Water

	Unit	G / S	M.D.L	VOC SPIKE 799742
Chloromethane	%		1	112
Vinyl Chloride	%		1	115
Bromomethane	%		1	84
Chloroethane	%		1	115
Trichlorofluoromethane	%		1	112
Acetone	%		1	94
1,1 Dichloroethene	%		1	83
Methylene Chloride	%		1	130
trans- 1,2-dichloroethylene	%		1	87
Methyl tert-butyl ether	%		1	79
1,1-Dichloroethane	%		1	115
Methyl Ethyl Ketone	%		1	80
cis- 1,2-Dichloroethylene	%		1	93
Chloroform	%		1	114
1,2 - Dichloroethane	%		1	94
1,1,1-Trichloroethane	%		1	102
Carbon Tetrachloride	%		1	87
Benzene	%		1	90
1,2-Dichloropropane	%		1	85
Trichloroethylene	%		1	90
Bromodichloromethane	%		1	95
cis-1,3-Dichloropropene	%		1	87
Methyl Isobutyl Ketone	%		1	95
trans-1,3-Dichloropropene	%		1	77
1,1,2-Trichloroethane	%		1	116
Toluene	%		1	118
2-Hexanone	%		1	85
Dibromochloromethane	%		1	109
Ethylene Dibromide	%		1	103
Tetrachloroethene	%		1	105
1,1,1,2-Tetrachloroethane	%		1	113

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CLIENT NAME: AMEC EARTH & ENVIRONMENTAL

ATTENTION TO: Jonathan Wakani

O. Regulation 153 - Volatile Organic Compounds in Water (% Recovery)

DATE SAMPLED: Sep 18, 2007 | DATE RECEIVED: Sep 20, 2007 | DATE REPORTED: Sep 27, 2007 | SAMPLE TYPE: Water

	Unit	G / S	M.D.L	VOC SPIKE 799742
Chlorobenzene	%		1	107
Ethylbenzene	%		1	98
m & p-Xylene	%		1	105
Bromoform	%		1	106
Styrene	%		1	80
1,1,2,2-Tetrachloroethane	%		1	115
o-Xylene	%		1	110
1,3-Dichlorobenzene	%		1	74
1,4-Dichlorobenzene	%		1	85
1,2-Dichlorobenzene	%		1	76
1,2,4-Trichlorobenzene	%		1	74
1,3-Dichloropropene (Cis + Trans)	%		1	92
Xylenes (Total)	%		1	108

Comments: M.D.L - Method Detection Limit; G / S - Guideline / Standard

799742 Results relate only to the items tested.
Surrogate Recovery for Toluene-d8:106 %
Surrogate Recovery for 4-Bromofluorobenzene:93 %

Certified By:

APPENDIX F

QUALITY ASSURANCE/QUALITY CONTROL

Appendix F - Soil Chemical Analysis - QA/QC
Volatile Organic Compounds (VOCs)

Location			Borehole BH 2	Borehole BH 2	**Relative Percent Difference**
Name			BH2-SS3	DUP 3	
Depth (metres below ground level)			1.52 - 2.13	1.52 - 2.13	**(RPD)**
Field Vapour Reading			250 ppm	250 ppm	
AGAT Analytical ID Number			793617	793619	
	Unit	MDL		Duplicate of BH2-SS3	
Chloromethane	µg/g	0.010	<	<	NA
Vinyl Chloride	µg/g	0.003	<	<	NA
Bromomethane	µg/g	0.009	<	<	NA
Chloroethane	µg/g	0.010	<	<	NA
Trichlorofluoromethane	µg/g	0.003	<	<	NA
Acetone	µg/g	0.074	<	<	NA
1,1-Dichloroethylene	µg/g	0.002	<	<	NA
Methylene Chloride	µg/g	0.007	<	<	NA
TRANS-1,2-Dichloroethylene	µg/g	0.005	<	<	NA
Methyl tert-butyl Ether	µg/g	0.005	<	<	NA
1,1-Dichloroethane	µg/g	0.006	<	<	NA
Methyl Ethyl Ketone	µg/g	0.044	<	<	NA
CIS 1,2-Dichloroethylene	µg/g	0.006	<	<	NA
Chloroform	µg/g	0.009	<	<	NA
1,2- Dichloroethane	µg/g	0.003	<	<	NA
1,1,1-Trichloroethane	µg/g	0.003	<	<	NA
Carbon Tetrachloride	µg/g	0.004	<	<	NA
Benzene	µg/g	0.004	<	<	NA
1,2-Dichloropropane	µg/g	0.004	<	<	NA
Trichloroethylene	µg/g	0.005	<	<	NA
Bromodichloromethane	µg/g	0.004	<	<	NA
CIS-1,3-Dichloropropene	µg/g	0.004	<	<	NA
Methyl Isobutyl Ketone	µg/g	0.018	<	<	NA
TRANS-1,3-Dichloropropene	µg/g	0.002	<	<	NA
1,1,2-Trichloroethane	µg/g	0.005	<	<	NA
Toluene	µg/g	0.002	<	<	NA
2-Hexanone	µg/g	0.021	<	<	NA
Dibromochloromethane	µg/g	0.004	<	<	NA
Ethylene Dibromide	µg/g	0.004	<	<	NA
Tetrachloroethylene	µg/g	0.004	<	<	NA
1,1,1,2-Tetrachloroethane	µg/g	0.004	<	<	NA
Chlorobenzene	µg/g	0.004	<	<	NA
Ethylbenzene	µg/g	0.003	<	<	NA
m & p-Xylene	µg/g	0.002	<	<	NA
Bromoform	µg/g	0.004	<	<	NA
Styrene	µg/g	0.002	<	<	NA
1,1,2,2- Tetrachloroethane	µg/g	0.002	<	<	NA
o-Xylene	µg/g	0.002	<	<	NA
1,3-Dichlorobenzene	µg/g	0.004	<	<	NA
1,4-Dichlorobenzene	µg/g	0.005	<	<	NA
1,2-Dichlorobenzene	µg/g	0.004	<	<	NA
1,2,4-Trichlorobenzene	µg/g	0.007	<	<	NA
1,3-Dichloropropene (Cis + Trans)	µg/g	0.004	<	<	NA
Xylenes (Total)	µg/g	0.002	<	<	NA

Notes: "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "NV" means no value derived. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable because both samples are not greater than five times the method detection limit. RPDs exceeding the alert limit of 100% is indicated by **bold**.

Appendix F - Soil Chemical Analysis - QA/QC
Petroleum Hydrocarbons (PHC)

Location			Borehole BH 2	Borehole BH 2	**Relative Percent Difference**
Name			BH2-SS3	DUP 3	
Depth (metres below ground level)			1.52 - 2.13	1.52 - 2.13	**(RPD)**
Field Vapour Reading			250 ppm	250 ppm	
AGAT Analytical ID Number			793617	793619	
	Unit	MDL		Duplicate of BH2-SS3	
PHC F1-BTEX (C6 - C10)	µg/g	5	<	<	NA
PHC F2 (C10 - C16)	µg/g	10	<	<	NA
PHC F3 (C16 - C34)	µg/g	50	<	<	NA
PHC F4 (C34 - C50)	µg/g	50	<	<	NA

Notes: "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "NV" means no value derived. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable because both samples are not greater than five times the method detection limit. RPDs exceeding the alert limit of 100% is indicated by **bold**. "PHC" means petroleum hydrocarbons. "C10" notation means 10 (or corresponding number) carbon chain.

Appendix F - Soil Chemical Analysis - QA/QC
Metals and Inorganics

Location			Shallow Sample 6	Shallow Sample 6	**Relative Percent Difference**
Name			SS6	DUP 1	
Depth (metres below ground level)			0.1	0.1	**(RPD)**
AGAT Analytical ID Number			792859	792861	
	Unit	MDL		Duplicate of SS6	
Antimony	µg/g	1.6	<	<	NA
Arsenic	µg/g	0.6	6.6	4.5	37.8%
Barium	µg/g	0.3	84.7	78.4	7.7%
Beryllium	µg/g	0.4	0.9	0.8	NA
Boron (Hot Water Extractable)	µg/g	0.10	0.58	0.47	NA
Cadmium	µg/g	0.4	<	<	NA
Chromium	µg/g	0.6	21.1	18.9	11.0%
Cobalt	µg/g	0.3	9.4	9.5	1.1%
Copper	µg/g	0.3	20.9	16.8	21.8%
Lead	µg/g	0.5	26	18.3	34.8%
Molybdenum	µg/g	0.5	<	<	NA
Nickel	µg/g	0.6	21.2	18.4	14.1%
Selenium	µg/g	0.8	0.9	<	NA
Silver	µg/g	0.4	<	<	NA
Thallium	µg/g	0.4	<	<	NA
Vanadium	µg/g	0.4	30.8	28.3	8.5%
Zinc	µg/g	0.4	87	73.6	16.7%
Chromium, Hexavalent	µg/g	0.40	<	<	NA
Cyanide, Free	µg/g	1.0	<	<	NA
Mercury	µg/g	0.011	0.039	0.031	NA
Electrical Conductivity (2:1)	mS/cm	0.002	0.196	0.378	63.4%
Sodium Adsorption Ratio	N/A	N/A	0.123	0.177	NA
pH 2:1 Water:Soil Extraction	N/A	N/A	6.97	7.12	NA

Notes: "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "NV" means no value derived. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable because both samples are not greater than five times the method detection limit. RPDs exceeding the alert limit of 100% is indicated by **bold**.

Appendix F - Soil Chemical Analysis - QA/QC
Organochlorine (OC) Pesticides

Location			Shallow Sample 6	Shallow Sample 6	**Relative Percent Difference**
Name			SS6	DUP 1	
Depth (metres below ground level)			0.1	0.1	**(RPD)**
AGAT Analytical ID Number			792859	792861	
	Unit	MDL		Duplicate of SS6	
Aldrin	µg/g	0.005	<	<	NA
alpha - BHC	µg/g	0.005	<	<	NA
gamma-BHC (Lindane)	µg/g	0.005	<	<	NA
Alpha-Chlordane	µg/g	0.005	<	<	NA
Gamma-Chlordane	µg/g	0.005	<	<	NA
Oxychlordane	µg/g	0.005	<	<	NA
Chlordane (Total)	µg/g	0.010	<	<	NA
pp'-DDD	µg/g	0.005	<	<	NA
op'-DDE	µg/g	0.005	<	<	NA
pp'-DDE	µg/g	0.005	<	<	NA
DDE (Total)	µg/g	0.005	<	<	NA
op'-DDT	µg/g	0.005	<	<	NA
pp'- DDT	µg/g	0.005	<	<	NA
DDT (Total)	µg/g	0.010	<	<	NA
Dieldrin	µg/g	0.005	<	<	NA
Endrin	µg/g	0.005	<	<	NA
Total Endosulfan	µg/g	0.005	<	<	NA
Heptachlor	µg/g	0.005	<	<	NA
Heptachlor Epoxide	µg/g	0.005	<	<	NA
Methoxychlor	µg/g	0.005	<	<	NA

Notes: "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "NV" means no value derived. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NA" means not applicable because both samples are not greater than five times the method detection limit. RPDs exceeding the alert limit of 100% is indicated by **bold**.

Appendix F - Ground Water Chemical Analysis - QA/QC
Volatile Organic Compounds (VOCs)

Location				Field Blank	Trip Blank	Trip Spike (% Recovery)
Name				Field Blank	Trip Blank	Trip Spike
AGAT Analytical ID Number				799743	799744	799742
	Unit	MDL	Table 2[(A)]			
Chloromethane	µg/L	0.40	NV	<	<	112
Vinyl Chloride	µg/L	0.17	1.3	<	<	115
Bromomethane	µg/L	0.20	10	<	<	84
Chloroethane	µg/L	0.20	NV	<	<	115
Trichlorofluoromethane	µg/L	0.40	NV	<	<	112
Acetone	µg/L	0.50	3000	<	<	94
1,1 Dichloroethene	µg/L	0.20	4.1	<	<	83
Methylene Chloride	µg/L	0.30	50	<	<	130
trans- 1,2-dichloroethylene	µg/L	0.20	100	<	<	87
Methyl tert-butyl ether	µg/L	0.20	700	<	<	79
1,1-Dichloroethane	µg/L	0.30	70	<	<	115
Methyl Ethyl Ketone	µg/L	0.90	350	<	<	80
cis- 1,2-Dichloroethylene	µg/L	0.20	70	<	<	93
Chloroform	µg/L	0.20	5.0	<	<	114
1,2 - Dichloroethane	µg/L	0.20	5.0	<	<	94
1,1,1-Trichloroethane	µg/L	0.30	200	<	<	102
Carbon Tetrachloride	µg/L	0.20	5.0	<	<	87
Benzene	µg/L	0.20	5.0	<	<	90
1,2-Dichloropropane	µg/L	0.20	5.0	<	<	85
Trichloroethylene	µg/L	0.20	50	<	<	90
Bromodichloromethane	µg/L	0.20	5.0	<	<	95
cis-1,3-Dichloropropene	ug/L	0.20	1.4	<	<	87
Methyl Isobutyl Ketone	µg/L	0.30	350	<	<	95
trans-1,3-Dichloropropene	µg/L	0.30	1.4	<	<	77
1,1,2-Trichloroethane	µg/L	0.20	5.0	<	<	116
Toluene	µg/L	0.20	24	<	<	118
2-Hexanone	µg/L	0.30	NV	<	<	85
Dibromochloromethane	µg/L	0.10	5.0	<	<	109
Ethylene Dibromide	µg/L	0.20	1.0	<	<	103
Tetrachloroethene	µg/L	0.10	5.0	<	<	105
1,1,1,2-Tetrachloroethane	µg/L	0.10	5.0	<	<	113
Chlorobenzene	µg/L	0.10	30	<	<	107
Ethylbenzene	µg/L	0.10	2.4	<	<	98
m & p-Xylene	µg/L	0.20	NV	<	<	105
Bromoform	µg/L	0.10	5.0	<	<	106
Styrene	µg/L	0.10	100	<	<	80
1,1,2,2-Tetrachloroethane	µg/L	0.10	1.0	<	<	115
o-Xylene	µg/L	0.10	NV	<	<	110
1,3-Dichlorobenzene	µg/L	0.10	630	<	<	74
1,4-Dichlorobenzene	µg/L	0.10	1.0	<	<	85
1,2-Dichlorobenzene	µg/L	0.10	3.0	<	<	76
1,2,4-Trichlorobenzene	µg/L	0.30	70	<	<	74
1,3-Dichloropropene (Cis + Trans)	µg/L	0.30	1.4	<	<	92
Xylenes (Total)	µg/L	0.20	300	<	<	108

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit.

Appendix F - Ground Water Chemical Analysis - QA/QC
Petroleum Hydrocarbons (PHC)

Location				Field Blank	Trip Blank
Name				Field Blank	Trip Blank
AGAT Analytical ID Number				799743	799744
	Unit	MDL	Table 2[(A)]		
C6 - C16 (F1 + F2)	µg/L	100	1000	<	<
C>16 - C50 (F3 + F4)	µg/L	500	1000	<	<

Notes: (A) "Ontario Regulation 153/04-Records of Site Condition" Full Depth Generic Site Condition Standards in a Potable Ground Water Condition for Agricultural or Other Property Use and medium/fine textured soils. Table 2 exceedences, if any, indicated by **bold**. "ppm" means parts per million. "LEL" means lower explosive limit. "ND" means non-detect. "NV" means no value. "MDL" means method detection limit. "<" indicates not detected above the method detection limit. "PHC" means petroleum hydrocarbons. ">" means greater than. "C10" notation means 10 (or corresponding number) carbon chain.