



- **Phase II Environmental Site Assessment (ESA)
Proposed Condominium
71 – 79 Main Street South
Georgetown, Ontario**

Client

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Executive Summary

Exp Services Inc. (**exp**) was retained by Mr. Don Jackson of Silvercreek Commercial Builders Inc. to complete a Phase II Environmental Site Assessment (ESA) of the properties located at 71-79 Main Street South, Georgetown, Town of Halton Hills, Ontario (hereinafter referred to as the 'Site'). The Site is located on the northeast corner of Mill Street and Main Street South in Georgetown, Town of Halton Hills, Ontario. The Site is irregular in shape and covers an area of approximately 2,321 m² (~0.57 acre). The Site is legally described as Part Lot 1, 2 & 3 of Registered Plan 37, Part Lot 18, Concession 9- (Geographic Township of Esquesing) Town of Halton Hills (Georgetown), Regional Municipality of Halton. The Site is currently developed with two (2) 3-storey buildings with one basement level. The building footprints cover the western portion of the Site whereas the eastern portion is currently a paved parking lot. The municipal addresses associated with the two Site buildings are 79 Main Street South and 71-77 Main Street South.

It is **exp**'s understanding that the Phase II ESA was required for due diligence purposes as part of land acquisition and that a Record of Site Condition is not required at this time.

The work program for this Phase II ESA was developed based on the findings of **exp**'s recently completed Phase I ESA (dated March 28, 2014) which are summarized below:

- A former closed domestic dump site (MOE Site No 7060) was identified on portions of the Site and extending north-northeasterly towards the abutting property which is currently a paved municipal parking lot.
- A dry-cleaner was identified at 55 Main Street South located approximately 25m north of the Site. Being located up-gradient with respect to the inferred groundwater flow direction, the dry cleaning operations on this property from the 1980s to date were considered a potential source of adverse environmental impact to the Site.

The objective of the Phase II ESA was to assess the subsurface environmental conditions in the areas of potential environmental concerns (listed above) identified by the **exp**'s recent Phase I ESA. This objective would be achieved by conducting intrusive sampling and selective analysis of soil and groundwater. The work was carried out to meet the requirements of the current CSA Standard Z769-00, "*Phase II Environmental Site Assessment*".

The analytical results were compared to the applicable criteria provided in the document entitled "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", dated April 15, 2011 ("MOE Standards").

On the basis of the work program completed, the following summary of findings is provided:

- The work program for the Phase II ESA comprised the drilling of four (4) boreholes, designated as Boreholes 1 to 4 to depths ranging from 14.2 to 14.3 m below ground surface (bgs). The boreholes were drilled at accessible locations selected in conjunction with the geotechnical investigation, to provide representative coverage in addition to satisfying the Phase II investigation requirements.
- Boreholes were positioned to provide coverage to the accessible eastern portion of the Site (which is a paved parking lot) to check soil and groundwater quality of the site which is suspected to be adversely impacted due to presence of the former domestic dump use onsite and offsite. In addition, Borehole 4, positioned close to the north property boundary of the site was also utilized to check soil and groundwater quality of the site which could potentially be impacted due to dry-cleaning operations on the property to the north of the Site at 55 Main Street South. The western portion of the Site is currently under existing building footprints.
- Boreholes 1 and 4 were instrumented with monitoring wells to collect groundwater samples and Borehole 2 was instrumented with a piezometer pipe to monitor water levels.
- Three (3) gas probes were installed at borehole locations 1, 2 and 4 to monitoring landfill gas (methane) possibly generated onsite or migrating from the former dump on the adjacent property.
- The approximate locations of the boreholes are shown in Drawing No. 1 – Borehole Location Plan. The rationale for the borehole locations is summarized in Table 1 of this report.
- The stratigraphy of the site, as revealed in the boreholes, generally comprised surficial asphalt over fill followed by native sand and /or sand and gravel layers.
- No apparent hydrocarbon odours or staining were noted in any of the soil samples recovered from the boreholes with the exception of minor stained pockets within the upper portions of fill in Boreholes 1 and 3. Also, in Borehole 2, pieces of metal, plastic and glass were encountered within the fill at depths from 1.5 to 2.1 m bgs along with rotting odours. Total organic vapour (TOV) testing in the headspace of each soil sample was performed using Photoionization Detector (PID) instrument calibrated with isobutylene in the field. The soil vapour levels in the soil samples were found to be varied from non-detect to 2.0 ppm.
- Free water was encountered in all four boreholes during augering (while advancing the boreholes) at depths of approximately 11.2 to 12.2 m bgs. After an elapsed time of eleven (11) days, the water level in the monitoring wells/piezometer installed in Boreholes 1, 2 and 4 was recorded at depths of 11.6, 10.9 and 10.9 m bgs respectively. The groundwater primarily originated from the water bearing sand unit.
- No floating products (i.e., – gasoline, diesel) were observed on the groundwater samples recovered from the monitoring wells installed in Borehole 1 and 4.

- The Site was assessed using the generic Table 2 criteria “Full Depth Generic Site Condition Standards in a Potable Ground Water Condition” from the MOE document “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” dated April 15, 2011 (“MOE Standards”). The current land use for the Site is a combination of residential and retail commercial. The residential/parkland/ institutional (RPI) property use criteria in a potable groundwater condition as listed in Table 2 of the MOE Standards were selected as the applicable assessment criteria for the Site. The subsurface soil encountered was visually assessed to be coarse textured.
- With the exception of exceedence of the F3 fraction of petroleum hydrocarbons in the soil (fill) sample tested from Borehole 3 at depths of 0.8 to 0.9 m bgs, all concentrations of petroleum marker parameters BTEX/PHCs and Volatile Organic Compounds (VOCs) in the analyzed soil samples were within the RPI property use criteria from Table 2 of the MOE Standards.
- The exceedences of one or more metals and inorganic parameters including Lead, Mercury, Cyanide, Sodium adsorption Ratio (SAR) and Electronic Conductivity (EC) in the soil (fill) samples from boreholes 2, 3 and 4 collected from depths between 0.3 m and 2.1 m bgs were reported. Also, elevated levels of SAR non conformant with the selected criteria were recorded for the two native soil samples collected from Borehole 2 and 3 between depths 2.4 to 3.7 m bgs. Rest all the concentrations of metals and general inorganic parameters in the all soil samples tested were within the RPI property use criteria from Table 2 of the MOE Standards.
- The groundwater samples collected from the monitoring wells installed in Boreholes 1 and 4 were analyzed for metals and general inorganic parameters, VOCs and BTEX/PHCs. The analytical results for the analyzed parameters meet the potable groundwater criteria from Table 2 of the MOE Standards selected for the Site with the exception of exceedence for one of the VOC parameters- Tetrachloroethylene in both groundwater samples. The concentrations of Tetrachloroethylene were reported to be 38 and 12 ug/L in groundwater samples from Boreholes 1 and 4 respectively, which exceed the Table 2 criterion limit of 1.6 ug/L.
- Based on the findings of this Phase II ESA, the quality of the fill present on Site is generally not in conformance with MOE Standards selected for the Site. The tested native samples tested shows conformance with MOE Standards selected for the Site with exception of elevated levels of SAR recorded in samples from borehole 2 and 3. Groundwater is reported to be impacted with elevated concentration of Tetrachloroethylene which was commonly used during dry-cleaning operations. Further, testing and sampling would be required to delineate the impacts identified within the soil and groundwater samples.

The monitoring well installed for this work program may be maintained on Site for on-going monitoring purposes at this time. However, when the use of the monitoring well is no longer

required, they must be decommissioned by licensed well contractors in accordance with Ontario Regulation 903.

1. Introduction

1.1 General

Exp Services Inc. (**exp**) was retained by Mr. Don Jackson of Silvercreek Commercial Builders Inc. to complete a Phase II Environmental Site Assessment (ESA) of the properties located at 71-79 Main Street South, Georgetown, Town of Halton Hills, Ontario (hereinafter referred to as the 'Site'). The Site is located on the northeast corner of Mill Street and Main Street South in Georgetown, Town of Halton Hills, Ontario. The Site is irregular in shape and covers an area of approximately 2,321 m² (~0.57 acre). The Site is legally described as Part Lot 1, 2 & 3 of Registered Plan 37, Part Lot 18, Concession 9- (Geographic Township of Esquesing) Town of Halton Hills (Georgetown), Regional Municipality of Halton. The Site is currently developed with two (2) 3-storey buildings with one basement level. The buildings footprints cover the western portion of the Site whereas the eastern portion is currently a paved parking lot. The municipal addresses associated with the two Site buildings are 79 Main Street South and 71-77 Main Street South.

It is **exp's** understanding that the Phase II ESA was required for due diligence purposes as part of land acquisition and that a Record of Site Condition is not required at this time.

The work program for this Phase II ESA was developed based on the findings of recently completed **exp's** Phase I ESA (dated March 28, 2014) which are summarized below:

- A former closed domestic dump site (MOE Site No 7060) was identified on portions of the Site and extending north-northeasterly towards the abutting property which is currently a paved municipal parking lot.
- A dry-cleaner was identified at 55 Main Street South located approximately 25m north of the Site. Being located up-gradient with respect to the inferred groundwater flow direction, the dry cleaning operations on this property from the 1980s to date were considered a potential source of adverse environmental impact to the Site.

This Phase II ESA was conducted for due diligence purposes. Subject to this standard of care, **exp** makes no express or implied warranties regarding its services and no third party beneficiaries are intended. Limitation of liability, scope of report and third party reliance are outlined in Section 8 of this report.

1.2 Objective

The objective of the Phase II ESA was to assess the subsurface environmental conditions in the areas of potential environmental concerns identified by the Phase I ESA. This objective would be achieved by conducting intrusive sampling and selective analysis of soil and

groundwater. The work was carried out to meet the requirements of the current CSA Standard Z769-00, "*Phase II Environmental Site Assessment*".

The analytical results were compared to the applicable criteria provided in the document entitled "*Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act*", dated April 15, 2011 ("MOE Standards").

Exp understands that this work is not being completed for the purposes of filing of a Record of Site Condition (RSC) at this time. Should a RSC be required for this Site in the future, additional work would be required to support the filing of an RSC.

1.3 Scope of Work

The scope of work consisted of soil and groundwater sampling and testing at accessible locations in the eastern- northeastern portion of the site. The fieldwork for Phase II ESA was carried out in conjunction with geotechnical investigation. The scope of work for the Phase II ESA included the following elements:

- Conduct underground service clearances at the proposed borehole locations by Ontario One Call as well as by private locator.
- Put down four (4) sampled boreholes to be located to satisfy the Phase II investigations as well as geotechnical requirements.
- Install two (2) groundwater monitoring wells and one (1) piezometer for subsequent groundwater sample collection and/or groundwater level monitoring.
- Conduct a field screening program consisting of organic vapour monitoring on the headspace of all recovered soil samples using a portable hydrocarbon vapour surveyor.
- Install three (3) gas probes to check for the presence of landfill gas (methane) which may be evolving from the former dump site use (if any). A Flame ionized Detection (FID) unit will be used for measuring the landfill gas concentration in the gas probes.
- Submit selected soil samples from the boreholes for laboratory analysis for metals and general inorganic parameters, Volatile Organic Compounds (VOCs), petroleum marker parameters Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) and Petroleum Hydrocarbons (PHC) Fractions F1 to F4).
- Recover water samples from the installed monitoring well and submit for analysis for metals and general inorganic parameters, VOCs, BTEX and PHC (F1-F4).
- Compile/assimilate data and prepare a report outlining the findings and subsurface conditions encountered in accordance with the requirements of the current CSA Standard Z769-00, "*Phase II Environmental Site Assessment*."

2. Site Description

2.1 Site Location and Setting

The Site is located on the northeast corner of Mill Street and Main Street South in Georgetown, Town of Halton Hills, Ontario. The Site is irregular in shape and covers an area of approximately 2,321 m² (~0.57 acre).

The Site slopes down towards the east and south. The basement level at the east side of the Site buildings is roughly on grade with the parking lot. The Site is bounded by Main Street South to the west, Mill Street to the south and commercial use buildings and parking lot to the north and east. The Site is situated in the historically developed downtown core of Georgetown.

The Site and its surrounding areas are serviced with potable water from a municipal supply which is derived from local groundwater.

2.2 Site Background

Exp's recently completed Phase I ESA investigation identified the following:

- A former closed domestic dump site (MOE Site No 7060) was identified on portions of the Site and extending north-northeasterly towards the abutting property which is currently a paved municipal parking lot.
- A dry-cleaner was identified at 55 Main Street South located approximately 25m north of the Site. Being located up-gradient with respect to the inferred groundwater flow direction, the dry cleaning operations on this property from the 1980s to date were considered a potential source of adverse environmental impact to the Site.

Based on the foregoing, **exp's** Phase I ESA report included a recommendation that soil and groundwater sampling and testing be conducted to check on subsurface conditions.

3. Methodology

3.1 General Fieldwork

The fieldwork for the Phase II ESA was carried out on April 16 and 17, 2014. The fieldwork for Phase II ESA was carried out in conjunction with geotechnical investigation. Prior to drilling, underground services near the area of the investigation were staked out by Ontario One Call as well as by a private locator to minimize the risk of contacting them during the subsurface investigation.

Four (4) boreholes, designated as Boreholes 1 to 4 were advanced to depths ranging from 14.2 to 14.3 m below ground surface (bgs). The approximate locations of the boreholes are shown in Drawing No. 1 – Borehole Location Plan. The rationale for the borehole locations is summarized in the table below:

Table 1 – Rationale of Borehole Locations

Boreholes	Media	Source / Rationale
BH1 to 4	Soil and Groundwater	<ul style="list-style-type: none"> Boreholes were positioned to provide coverage to the accessible eastern portion of the Site (which is a paved parking lot) to check soil and groundwater quality of the site which is suspected to be adversely impacted due to presence to former domestic dump site use (onsite and offsite).
BH4	Soil	<ul style="list-style-type: none"> Borehole 4 positioned close to the north property boundary of the site was also utilized to check soil and groundwater quality of the site which could potentially be impacted due to dry-cleaning operations on the property to the north of the Site at 55 Main Street South.

The boreholes were drilled by a specialist drilling contractor, utilizing a truck-mounted drilling rig with hollow stem continuous flight augers. The drilling activities were continuously monitored by **exp** to record the physical characteristics of the soil, depth of soil sample collection and total depth of boring. No petroleum-based greases or solvents were used during the drilling procedures.

Representative samples of the subsoils were recovered in the boreholes at regular intervals using a split-spoon sampler. The sampling equipment was cleaned between sampling intervals using phosphate-free soap followed by rinsing with distilled water to reduce the potential for cross-contamination. Samples were preserved in moisture tight containers and returned to **exp's** laboratory for visual, textural and olfactory classification.

Groundwater levels were observed in the open boreholes during the course of the fieldwork and in the monitoring wells/piezometer installed for subsequent groundwater level monitoring, purging and sampling. Typically, monitoring well consisted of 50 mm inside

diameter PVC pipe with a 3.0 m screened section. The annulus around the screened section was packed with silica sand. The remainder of the borehole was backfilled with bentonite hole plug.

The well construction is shown on the left margin of the borehole log. Records of cave and groundwater levels are recorded on the lower right corner of the Log of Borehole sheets. A summary of the monitoring well installation details is presented in Table 2 below.

Table 2 – Summary of Monitoring Wells Installation

Monitoring Well	Surface Elevation (m)	Top of Sand Pack Elevation (m)	Top of Screen Elevation (m)	Bottom of Screen Elevation (m)	Screened Interval (mbgs)	Bottom of Borehole Elevation (m)	Depth of Borehole (mbgs)
BH1	249.58	239.18	238.88	235.88	10.7-13.7	235.2	14.3
BH2**	249.05	239.05	238.35	235.25	10.7-13.7	234.7	14.3
BH4	249.36	239.56	238.86	235.86	10.5-13.5	235.0	14.3
**Piezometer was installed for water level monitoring only							

The monitoring well was installed in general accordance with the Ontario Water Resources Act – R.R.O. 1990, REGULATION 903 – Amended to O. Reg. 128/03. The monitoring well was installed by a licensed well contractor. When the use of the monitoring well is no longer required, it must be decommissioned in accordance with the procedure outlined in the Ontario Water Resources Act – R.R.O. 1990, REGULATION 903 Amended to O. Reg. 128/03.

Also, three (3) gas probes consisted of 50 mm inside diameter PVC pipe with screened sections were installed at borehole locations 1, 2 and 4. The annulus around the screened section was packed with silica sand. The remainder of the borehole was backfilled with bentonite hole plug.

Separate shallow boreholes were drilled next to the original boreholes for installation of these gas probes. A summary of the monitoring well installation details is presented in Table 3 below:

Table 3 – Summary of Gas Probes Installation

Gas Probe	Surface Elevation (m)	Top of Sand Pack Elevation (m)	Top of Screen Elevation (m)	Bottom of Screen Elevation (m)	Screened Interval (mbgs)	Bottom of Borehole Elevation (m)	Depth of Borehole (mbgs)
BH1	249.58	248.97	248.67	245.62	0.91-3.96	245.62	3.96
BH2**	249.05	248.59	248.44	247.53	0.91-1.52	246.05	3.0
BH4	249.36	248.75	248.45	245.40	0.91-3.96	245.40	3.96
** Perched water within the fill was encountered at ~ 2.0 m while auguring borehole (BH2) for gas probe installation.							

The fieldwork was supervised by an **exp** geo-environmental engineering staff member who monitored the drilling and sampling operations and logged the borings.

The borehole locations were established in the field by **exp** personnel. The ground surface elevation of each borehole was referenced to the top of a sanitary manhole which is shown to have an elevation of El. 249.09 m (Geodetic) on a survey plan provided by the client. The survey plan was issued by Dolliver Surveying Inc., File No. 1488-3, dated February 21, 2014.

3.2 Soil Sampling

Dedicated nitrile gloves (i.e., one pair per sample) were used during sample handling. A portion of each soil sample was placed in a sealed “zip-lock” plastic bag and allowed to reach ambient temperature prior to field screening using a Rkl Eagle hydrocarbon vapour surveyor. The measurements were made by inserting the probe of the instrument into the plastic bag while manipulating the sample to ensure volatilization of the soil gases. These readings provide a real-time indication of the relative concentration of soil vapours encountered in the subsurface during drilling and are used to aid in the assessment of the vertical and horizontal extent of contamination and the selection of soil samples for analysis.

Direct sampling of the soil sample was conducted using hermetically sealed laboratory-supplied core samplers and preserved in methanol vials. The core samplers are intended for analysis of BTEX/PHC parameters and are designed to provide a soil sample core with virtually no head-space, which reduces the potential for induced volatilization during storage/transport prior to analysis. Soil samples intended for other non-volatile chemical parameters were placed directly into pre-cleaned, laboratory-supplied glass sample jars/vials. All soil samples were placed in clean ice-packed coolers prior to and during transportation to the subcontract laboratory, Maxxam Analytics Inc. (Maxxam) of

Mississauga, Ontario. The samples were transported/submitted under Chain of Custody documentation.

The soil samples were visually assessed and classified according to the American Society for Testing and Materials (ASTM) standard for the description and identification of soils. The borehole logs contain observations noted during the drilling procedure and the origin of each soil sample. Analytical results are discussed in Section 5.2.

3.3 Groundwater Sampling

Groundwater level monitoring, purging and sampling of the monitoring wells installed in the boreholes 1 and 4 were conducted during the course of the fieldwork and during subsequent visits made to the Site.

Both monitoring wells were purged three times of the well volume before a representative groundwater sample was retrieved. The samples were collected in containers supplied by the laboratory and stored in a field cooler for transport. Analytical results are discussed in Section 5.3.

3.4 Laboratory Testing Program

The laboratory testing program consisted of the following:

- Six (6) soil samples [four (4) fill samples and two (2) native samples] were analyzed for pH, Metals and General Inorganics
- Four (4) soil samples [two (2) fill samples and two (2) native samples] were analyzed for VOC, BTEX/PHC
- Two (2) groundwater sample was analyzed for Metals & General Inorganics, VOC, BTEX/PHC

3.5 Assessment Criteria

The assessment criteria [Site Condition Standards (SCS)], applicable to a given site in Ontario are established under subsection 168.4(1) of the Environmental Protection Act. Tabulated generic criteria are provided in “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” (“the MOE Standards”), April 15, 2011. These criteria are based on site sensitivity (sensitive or non-sensitive), groundwater use (potable or non-potable), property use (residential, parkland, institutional, commercial, industrial, community and agricultural/other), soil type (coarse or medium to fine textured) and restoration depth (full or stratified restoration). In addition, site specific criteria may be established on the basis of the findings of a Risk Assessment carried out in accordance with Part IX and Schedule C of Ontario Regulation 153/04 (O. Reg. 153/04).

The Site is situated in a developed area where potable water service is supplied by the municipality and the source of municipal water supply is local groundwater.

The current land use for the Site is mix of residential and commercial. Therefore, the residential/parkland/ institutional (RPI) property use soil criteria and the potable groundwater criteria listed in Table 2 of the MOE Standards were selected as the applicable assessment criteria for the Site. The subsurface soil encountered was visually assessed to be coarse textured.

4. Subsurface Conditions

4.1 Soil

The detailed soil profiles encountered in each borehole and the results of moisture content and unit weight determinations are indicated on the attached borehole logs (Drawing Nos. 2 to 5). It should be noted that the soil boundaries indicated on the borehole logs are inferred from non-continuous sampling and observations during drilling. These boundaries are intended to reflect approximate transition zones for the purpose of geotechnical design and should not be interpreted as exact planes of geological change.

The "Notes on Sample Description" preceding the borehole logs form an integral part of and should be read in conjunction with this report. The following is a brief description of the soil conditions encountered during the investigation:

Asphalt

Asphalt with thicknesses of about 40 to 75 mm was encountered at ground surface at all borehole locations.

Fill

Fill ranging from sand and gravel to clayey silt with brick fragments was encountered below the asphalt cover at all borehole locations. Pieces of plastic, glass, metal and rotting odours were noted in the fill in Borehole 2. Also, minor black stained pockets were noted within the upper levels of the fill in Borehole 1 and 3. The fill extends to about 2.4 to 4.0 m below existing ground surface (El. ~247.0 to 245.6 m).

Sand and Gravel

A sand and gravel deposit was encountered below the fill in Boreholes 1 and 3 and was "sandwiched" between the upper and lower sand in Boreholes 2 and 4. The sand and gravel deposit is brown in colour, exists in a moist to wet condition and has a compactness of compact to very dense. The sand and gravel deposit extends to depths of about 8.5 m in all boreholes (El. 241.4 to 240.6 m).

A lower sand and gravel layer was encountered in Borehole 2 between depths of about 11.0 and 11.8 m below existing grade. This material contains cobble fragments, is wet and exists in a dense state.

Sand

An upper sand deposit was encountered below the fill in Boreholes 2 and 4. This material is fine to medium grained, contains some gravel and exists in a compact to very dense state (recorded “N”-values ranging from 17 to 58). This upper sand deposit extends to about 5.5 m below existing ground surface (El. ~243.6 to 243.9 m).

A lower sand deposit was encountered below the sand and gravel in all borehole locations. This deposit is fine to medium grained in upper level and becomes finer grained with depth. The sand was moist and became wet at about 11.0 to 11.5 m depth. With recorded “N”-values ranging from 14 to 53, the lower sand deposit is in a compact to very dense state. The lower sand deposit extends to depths of about 11.0 to 14.3 m (El. ~238.1 to 235.0 m). Boreholes 1, 3 and 4 were terminated in the lower sand deposit at a depth of about 14.3 m below existing ground surface.

Silty Sand

In Borehole 2, the lower sand and gravel was underlain by a silty sand deposit. This deposit is fine grained, brown in colour and wet. The silty sand deposit exists in a compact state (recorded “N”-values ranging from 11 to 14) and extends to the termination depth of about 14.3 m below existing grade (El. ~234.7 m).

4.2 Groundwater

Groundwater levels were assessed in the open boreholes during the course of the fieldwork and in monitoring well installed in Boreholes 1. Short-term groundwater measurements are included on the attached borehole logs.

Free water was encountered in all four boreholes during augering at depths ranging from 11.2 m to 11.7m below grade. After an elapsed time of twenty (20) days, the water level in the monitoring wells/piezometer installed in Borehole 1, 2 and 4 was recorded at a depth of approximately 11.45 m, 10.81 m and 10.80 m below existing grade respectively. The groundwater primarily originated from saturated sand unit.

A summary of the groundwater levels measured is presented in Table 4 below:

Table 4 - Groundwater Elevations

Monitoring Well	Groundwater Depth (m bgs)	Groundwater Elevation (m)
BH1	11.45	238.13
BH2	10.81	238.24
BH4	10.80	238.56

Note: Groundwater depth based on measurements taken on May 08, 2014

No floating products (i.e., – gasoline, diesel) were observed on the groundwater samples subsequently recovered from the monitoring wells in Borehole 1 and 4.

4.3 Total Organic Vapour Monitoring

Total organic vapour (TOV) testing for Volatile Organic Compounds (VOCs) in the headspace of each soil sample was performed using a Photoionization Detector (PID) instrument calibrated with isobutylene and equipped with a 10.6 eV lamp.

The TOV monitoring indicated that the TOV levels in the headspace of the recovered soil samples ranged from non-detect to 2.0 ppm.

4.4 Landfill gas (methane) Monitoring

Three (3) gas probes installed at borehole locations 1, 2 and 4 were monitored using a Flame ionized Detection (FID) unit as well as a RKI Eagle unit calibrated for methane. A summary of the gas levels recorded is presented in Table 5 below:

Table 5 – Gas Readings from Gas Probes (in ppm)

Monitoring Well	Using FID on April 28, 2014	Using RKI on May 8, 2014
BH1	15.1 ppm	90 ppm
BH2	1006 ppm	280 ppm
BH4	301.8 ppm	190 ppm

5. Analytical Testing

5.1 Sample Selection

5.1.1 Soil Sample Selection

The soil samples submitted for laboratory analysis are summarized in the table below.

Table 6 - Summary of Soil Samples Submitted for Laboratory Analysis

Sample ID	Location	Depth (m)	Material	Analytical Parameters	Rationale
BH1 (5'-7')	Borehole 1	1.5 – 2.1	fill	pH, Metals & General Inorganics	To access fill quality
BH1 (13'-14')	Borehole 1	4.0 - 4.3	Native	pH, Metals & General Inorganics	To access native soil quality
BH1 SS12 (40'- 41.5')	Borehole 1	12.2 – 12.6	Native	VOCs, BTEX/PHCs	Inferred Groundwater level
BH2 (5'-7')	Borehole 2	1.5 – 2.1	fill	pH, Metals & General Inorganics, VOCs, BTEX/PHCs	To access fill quality
BH2 SS4 (8'-9')	Borehole 2	2.4 -2.7	Native	pH, Metals & General Inorganics	To access native soil quality
BH3 (2'-3')	Borehole 3	0.6 – 0.9	fill	pH, Metals & General Inorganics	To access fill quality
BH3 SS2 (2.5'-3')	Borehole 3	0.8 – 0.9	fill	VOCs, BTEX/PHCs	To access fill quality
BH3 SS5 (10'-12')	Borehole 3	3.0-3.6	fill	BTEX/PHCs and pH, Metals & General Inorganics	To access native soil quality
BH4 (1'-2')	Borehole 4	0.3 – 0.6	fill	pH, Metals & General Inorganics	To access fill quality
BH4 (10'-12')	Borehole 4	3.1- 3.7	Native	pH, Metals & General Inorganics	To access native soil quality
BH4 SS11 (35-36.5')	Borehole 4	10.7 – 11.1	Native	VOCs, BTEX/PHCs	Inferred Groundwater level

5.1.2 Groundwater Sample Selection

The groundwater sample submitted for laboratory analysis is summarized in table below.

Table 7: Summary of Groundwater Samples Submitted for Analysis

Sample Identification	Location	Analysis
BH1	Monitoring Well in Borehole 1	pH, Metals & General Inorganics, VOCs, BTEX/PHCs
BH4	Monitoring Well in Borehole 4	pH, Metals & General Inorganics, VOCs, BTEX/PHCs

5.2 Soil Analyses

5.2.1 pH

The pH values of the soil samples analyzed were between 5 and 9, thereby validating the use of generic criteria listed in the MOE Standards for assessment purposes at the Site.

5.2.2 Metals and General Inorganic Parameters

Eight (8) soil samples including [four (4) fill and four (4) native] were analyzed for metals and general Inorganic parameters. With the exception of exceedences tabulated below, the concentrations of remaining metals and general inorganic parameters in all tested soil samples were within the RPI property use criteria from Table 2 of the MOE Standards for coarse grained soils.

Table 8: Summary of Exceedences in Soil samples Submitted for Analysis

Sample Identification	Location/Depth (m)	Exceeded Parameter	Recorded Concentration	Table 2 –RPI Limit (For Coarse Grained)
BH2 (5'-7')	Borehole 2 at 1.5 – 2.1	Cyanide, EC, SAR	Cyanide- 0.13 ug/g EC – 2.0 mS/cm SAR – 9.5	Cyanide- 0.051 ug/g EC – 0.7 mS/cm SAR – 5.0
BH2 SS4 (8'-9')	Borehole 2 at 2.4-2.7	SAR	SAR -5.8	SAR – 5.0
BH3 (2'-3')	Borehole 3 at 0.6 – 0.9	Lead, Mercury, EC, SAR	Lead- 260 ug/g Mercury – 1.0 ug/g EC – 1.6 mS/cm SAR – 31	Lead- 120 ug/g Mercury – 0.27 ug/g EC – 0.7 mS/cm SAR – 5.0
BH3 SS5 (10'-12')	Borehole 3 at 3.0-3.6	SAR	SAR -11	SAR – 5.0
BH4 (1'-2')	Borehole 4 at 0.3 – 0.6	EC, SAR	EC – 2.1 mS/cm SAR – 22	EC – 0.7 mS/cm SAR – 5.0

5.2.3 Volatile Organic Compounds (VOCs) including Benzene, Toluene, Ethyl Benzene, Xylene and Petroleum Hydrocarbons (PHCs –F1 to F4)

Five (5) soil samples [including two (2) fill and three (3) native] were analyzed for VOCs, BTEX and PHCs- F1 to F4 Fractions. Some of the tested VOC parameters were detected in the soil samples which include Tetrachloroethylene in samples BH1 SS12 (native) and BH 2 SS3 (fill), Ethylbenzene, Xylene and PHC (F2-F4) in sample BH3 SS2 (fill).

With the exception of one exceedence in sample BH3 SS2 for PHC (F3) as tabulated below, the concentrations of all the detected/non detected parameters in tested samples met the RPI property use criteria from Table 2 of the MOE Standards for coarse grained soils.

Table 9: Summary of Exceedences in Soil samples Submitted for Analysis

Sample Identification	Location/Depth (m)	Exceeded Parameter	Recorded Concentration	Table 2 (For Coarse Grained)
BH3 SS2 (2.5' -3')	Borehole 3 at 0.8 – 0.9	PHC [F3 (C16-C34)]	380 ug/g	300 ug/g

5.3 Groundwater Analyses

5.3.1 Metals and General Inorganic Parameters

Two (2) groundwater samples retrieved from the monitoring wells installed in Borehole 1 and 4 were analyzed for metals and general inorganic parameters. The analytical results for both samples showed conformance with Table 2 (potable groundwater condition) of the MOE Standards.

5.3.2 Volatile Organic Compounds (VOCs) including Benzene, Toluene, Ethyl Benzene, Xylene and Petroleum Hydrocarbons (PHCs –F1 to F4)

Two (2) groundwater samples retrieved from the monitoring wells installed in Borehole 1 and 4 were analyzed for VOCs, BTEX and PHCs- F1 to F4 Fractions.

With the exception of Tetrachloroethylene exceedence in both groundwater samples (as tabulated below), the concentrations of all the detected/non detected parameters in both groundwater samples showed conformance with Table 2 (potable groundwater condition) of the MOE Standards. The other detected parameters whose concentrations were within the selected Table 2 criteria include Chloroform, Trichloroethylene, Toluene, and Xylene in the groundwater sample retrieved from the monitoring well installed in Borehole 1 and

Chloroform in the groundwater sample retrieved from the monitoring well installed in Borehole 4.

Table 10: Summary of Exceedences in Groundwater samples Submitted for Analysis

Sample Identification	Location	Exceeded Parameter	Recorded Concentration	Table 2 (For Coarse Grained)
BH1	Monitoring well in Borehole 1	Tetrachloroethylene	38 ug/L	1.6 ug/L
BH4	Monitoring well in Borehole 4	Tetrachloroethylene	12 ug/L	1.6 ug/L

5.4 Quality Control/Quality Assurance

The subcontract laboratory used during this investigation, Maxxam Analytics Inc., is accredited by the Standards Council of Canada/ Canadian Association for Laboratory Accreditation in accordance with ISO/IEC 17025:1999 – “General Requirements for the Competence of Testing and Calibration Laboratories” for the analysis of all parameters for all samples in the scope of work for which SCS have been established under Ontario Regulation 153/04.

The laboratory quality assurance program included the analysis of laboratory duplicate (replicate) samples, method blanks, spiked blanks, spiked samples and samples of reference materials in accordance with the Analytical Protocol.

6. Summary of Findings

The following summary of findings is provided:

- The work program for the Phase II ESA comprised the drilling of four (4) boreholes, designated as Boreholes 1 to 4 to depths ranging from 14.2 to 14.3 m below ground surface (bgs). The boreholes were drilled at the accessible locations selected in conjunction with the geotechnical investigation to provide representative coverage in addition to satisfy the Phase II investigations.
- Boreholes were positioned to provide coverage to the accessible eastern portion of the Site (which is a paved parking lot) to check soil and groundwater quality of the site which is suspected to be adversely impacted due to presence to former domestic dump use onsite and offsite. In addition, Borehole 4 positioned close to the north property boundary of the site was also utilized to check soil and groundwater quality of the site which could potentially be impacted due to dry-cleaning operations on the property to the north of the Site at 55 Main Street South. The western portion of the Site is currently under existing buildings footprints.
- Borehole 1 and 4 were instrumented with monitoring wells to collect groundwater samples and Borehole 2 was instrumented with piezometer pipe to monitor water level.
- Three (3) gas probes were installed at borehole locations 1, 2 and 4 to monitoring landfill gas (methane) evolution onsite or migrating from former dump on the adjacent property.
- The approximate locations of the boreholes are shown in Drawing No. 1 – Borehole Location Plan. The rationale for the borehole locations is summarized in Table 1 of this report.
- The stratigraphy of the site, as revealed in the boreholes, generally comprised surficial asphalt over fill followed by native sand and /or sand and gravel layers.
- No apparent hydrocarbon odours or staining were noted in any of the soil samples recovered from the boreholes with the exception of minor stained pockets within the upper portions of fill in boreholes 1 and 3. Also, in Borehole 2, pieces of metal, plastic & glass were encountered within the fill at depths from 1.5 to 2.1 m bgs along with rotting odours. Total organic vapour (TOV) testing in the headspace of each soil sample was performed using Photoionization Detector (PID) instrument calibrated with isobutylene in the field. The soil vapour levels in the soil samples were found to be varied from non-detect to 2.0 ppm.
- Free water was encountered in all four boreholes during augering (while advancing the boreholes) at depths of approximately 11.2 to 12.2 m bgs. After an elapsed time of eleven (11) days, the water level in the monitoring wells/piezometer installed in Borehole

1, 2 and 4 was recorded at depths of 11.6, 10.9 and 10.9 m bgs respectively. The groundwater primarily originated from water bearing sand unit.

- No floating products (i.e., – gasoline, diesel) were observed on the groundwater samples recovered from the monitoring wells installed in Borehole 1 and 4.
- The Site was assessed using the generic Table 2 criteria “Full Depth Generic Site Condition Standards in a Potable Ground Water Condition” from the MOE document “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” dated April 15, 2011 (“MOE Standards”). The current land use for the Site is combination of residential and retail commercial. The residential/parkland/ institutional (RPI) property use criteria in a potable groundwater condition as listed in Table 2 of the MOE Standards were selected as the applicable assessment criteria for the Site. The subsurface soil encountered was visually assessed to be coarse textured.
- With the exception of exceedence for F3 fractions of petroleum hydrocarbons in soil (fill) sample tested from Borehole 3 at depths of 0.8 to 0.9 m bgs, all concentrations of petroleum marker parameters BTEX/PHCs and Volatile Organic Compounds (VOCs) in the analyzed soil samples were within the RPI property use criteria from Table 2 of the MOE Standards.
- The exceedences of one or more metals and inorganic parameters including Lead, Mercury, Cyanide, Sodium adsorption Ratio (SAR) and Electronic Conductivity (EC) in the soil (fill) samples from boreholes 2, 3 and 4 collected from depths between 0.3 m and 2.1 m bgs were reported. Also, elevated levels of SAR non conformant with the selected criteria were recorded for the two native soil samples collected from Borehole 2 and 3 between depths 2.4 to 3.7 m bgs. Rest all the concentrations of metals and general inorganic parameters in the all soil samples tested were within the RPI property use criteria from Table 2 of the MOE Standards.
- The groundwater samples collected from the monitoring wells installed in Boreholes 1 and 4 were analyzed for metals and general inorganic parameters, VOCs and BTEX/PHCs. The analytical results for the analyzed parameters meet the potable groundwater criteria from Table 2 of the MOE Standards selected for the Site with the exception of exceedence for one of the VOC parameters- Tetrachloroethylene in both groundwater samples. The concentrations of Tetrachloroethylene were reported to be 38 and 12 ug/L in groundwater sample from Borehole 1 and 4 respectively which exceeds the Table 2 criteria limit of 1.6 ug/L.

7. Conclusions and Recommendations

Based on the findings of this Phase II ESA, the quality of the fill present on Site is generally not in conformance with MOE Standards selected for the Site. The tested native samples tested shows conformance with MOE Standards selected for the Site with exception of elevated levels of SAR recorded in samples from borehole 2 and 3. Groundwater is reported to be impacted with elevated concentration of Tetrachloroethylene which is commonly used during dry-cleaning operations. Further, testing and sampling would be required to delineate the impacts identified within the soil and groundwater samples.

The monitoring well installed for this work program may be maintained on Site for on-going monitoring purposes at this time. However, when the use of the monitoring well is no longer required, they must be decommissioned by licensed well contractors in accordance with Ontario Regulation 903.

8. General Comments

The information presented in this report is based on a limited investigation designed to provide information to support an assessment of the current environmental conditions within the subject property. The conclusions and recommendations presented in this report reflect Site conditions existing at the time of the investigation.

More specific information with respect to the conditions between samples, or the lateral and vertical extent of materials may become apparent during any future excavation operations. The interpretation of the borehole information must, therefore, be validated during any such excavation operations. Consequently, during any future redevelopment of the property, conditions not observed during this investigation may become apparent. Should this occur, **exp** should be contacted to assess the situation, and the need for additional testing and reporting. **Exp** has qualified personnel to provide assistance in regards to any future geotechnical and environmental issues related to this property.

The environmental investigation was carried out to address the intent of applicable provincial Regulations, Guidelines, Policies, Standards, Protocols and Objectives administered by the Ministry of Environment. It should also be noted that current environmental Regulations, Guidelines, Policies, Standards, Protocols and Objectives are subject to change, and such changes, when put into effect, could alter the conclusions and recommendations noted throughout this report. Achieving the study objectives stated in this report has required us to arrive at conclusions based upon the best information presently known to us. No investigative method can completely eliminate the possibility of obtaining partially imprecise or incomplete information; it can only reduce the possibility to an acceptable level. Professional judgment was exercised in gathering and analyzing the information obtained and in the formulation of the conclusions. Like all professional persons rendering advice we do not act as absolute insurers of the conclusions we reach, but we commit ourselves to care and competence in reaching those conclusions.

Our undertaking at **exp**, therefore, is to perform our work within limits prescribed by our clients, with the usual thoroughness and competence of the engineering profession. It is intended that the outcome of this investigation assists in reducing the client's risk associated with environmental impairment. Our work should not be considered 'risk mitigation'. No other warranty or representation, either expressed or implied, is included or intended in this report.

This report was prepared for the exclusive use of Barney River Investments Limited and may not be reproduced in whole or in part, without the prior written consent of **exp**, or used or relied upon in whole or in part by other parties for any purposes whatsoever. Any use which a third party makes of this report, or any part thereof, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. **Exp** Services Inc.

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 this report is satisfactory for your purposes. Should you have any questions regarding our submission, please do not hesitate to contact this office.

Yours truly,

exp Services Inc.



Aamna Arora, P. Eng.
Project Engineer




David Dennison, P. Eng.
Senior Geoenvironmental Engineer

Appendix A

Chain of Custody Records

Analytical Results



INVOICE INFORMATION	REPORT INFORMATION (if differs from invoice)	PROJECT INFORMATION	TURNAROUND TIME (TAT) REQUIRED
Company Name: EXP SERVICES INC.	Company Name:	Quotation #:	<input checked="" type="checkbox"/> Regular TAT (5-7 days)
Contact Name: KEVIN LEUNG	Contact Name: Aamna Arora	P.O. #:	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 1545 Clark Blvd. BRAMPTON	Address:	Project #: BRM00603467-Bo	Rush TAT (Applicable Surcharge)
Phone:	Phone:	Site Location: 71-79 King St. South	<input type="checkbox"/> 1 Day (100%)
Fax:	Fax:	Site #: Georgetown (Kalbentli's)	<input type="checkbox"/> 2 Days (50%)
Email: kevin.leung@exp.com	Email: aamna.arora@exp.com	Sampled By: A.A	<input type="checkbox"/> 3-4 Days (25%)

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

REGULATION 153 (2011)	OTHER REGULATIONS
<input type="checkbox"/> Table 1 <input type="checkbox"/> Table 2 <input type="checkbox"/> Table 3 <input type="checkbox"/> Table	<input type="checkbox"/> Res/Park <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Agri/Other
<input type="checkbox"/> Med/Fine <input type="checkbox"/> Coarse	<input type="checkbox"/> CCME <input type="checkbox"/> MISA <input type="checkbox"/> PWQO <input type="checkbox"/> Other (Specify):
<input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> Storm Sewer Bylaw Municipality:	<input type="checkbox"/> REG 558 (MINIMUM 3 DAY TAT REQUIRED)

FOR RSC (PLEASE CIRCLE) YES / NO

ANALYSIS REQUESTED	FIELD FILTERED (PLEASE CIRCLE) Metals / Hg / CrVI
VOC	<input checked="" type="checkbox"/>
BTEX (PHECFI-F4)	<input checked="" type="checkbox"/>
General Inorganics & Metals Complete	<input checked="" type="checkbox"/>

Rush Confirmation #:

Date Required:

LABORATORY USE ONLY

CUSTODY SEAL (Y/N)	Temperature (°C) on Receipt
Present: <input checked="" type="checkbox"/>	5/5/5°C
Intact: <input checked="" type="checkbox"/>	
COOLING MEDIA PRESENT (Y/N): <input checked="" type="checkbox"/>	

COMMENTS / TAT COMMENTS

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

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

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX	# OF CONT.	FIELD FILTERED (PLEASE CIRCLE) Metals / Hg / CrVI
1 BH1 (5'-7')	Apr 16		Soil		<input checked="" type="checkbox"/>
2 BH2 (5'-7')	Apr 16		}		<input checked="" type="checkbox"/>
3 BH3 (2'-3')	Apr 17			<input checked="" type="checkbox"/>	
4 BH4 (1'-2')	"			<input checked="" type="checkbox"/>	
5 BH1 (13'-14')	Apr 16			<input checked="" type="checkbox"/>	
6 BH4 (10'-12')	Apr 17			<input checked="" type="checkbox"/>	
7 BH1 SS12 (40'-41.5')	Apr 16			<input checked="" type="checkbox"/>	
8 BH2 SS3 (5'-7')	Apr 16			<input checked="" type="checkbox"/>	
9 BH3 SS2 (25'-3')	Apr 17			<input checked="" type="checkbox"/>	
10 BH4 SS11 (35'-36.2')	Apr 17			<input checked="" type="checkbox"/>	

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	# JARS AND SUBMIT
<i>[Signature]</i>	2014/04/19	10:45	H. S. Graml Harman GRENAL	2014/04/19	10:45	
AAMNA ARORA						

19-Apr-14 10:45

Sara Singh



B463089

HG1 ENV-256

Your Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Your C.O.C. #: 36808

Attention: Aamna Arora

exp Services Inc
 1595 Clark Blvd
 Brampton, ON
 L6T 4V1

Report Date: 2014/04/30
Report #: R3015492
Version: 2

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B463089

Received: 2014/04/19, 10:45

Sample Matrix: Soil

Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	3	2014/04/25	2014/04/25	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron	3	2014/04/29	2014/04/29	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	4	N/A	2014/04/24	CAM SOP-00226	EPA 8260
Free (WAD) Cyanide	6	N/A	2014/04/23	CAM SOP-00457	Ontario MOE CN-E3015
Conductivity	6	N/A	2014/04/25	CAM SOP-00414	MOE LSB E3138 v2
Hexavalent Chromium in Soil by IC (1)	3	2014/04/22	2014/04/22	CAM SOP-00436	EPA SW846-3060/7199
Hexavalent Chromium in Soil by IC (1)	3	2014/04/23	2014/04/23	CAM SOP-00436	EPA SW846-3060/7199
Petroleum Hydro. CCME F1 & BTEX in Soil	4	2014/04/19	2014/04/24	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	4	2014/04/24	2014/04/24	CAM SOP-00316	CCME CWS
F4G (CCME Hydrocarbons Gravimetric)	1	2014/04/25	2014/04/26	CAM SOP-00316	CCME CWS
Acid Extr. Metals (aqua regia) by ICPMS	6	2014/04/24	2014/04/25	CAM SOP-00447	EPA 6020
Moisture	10	N/A	2014/04/21	CAM SOP-00445	R.Carter,1993
pH CaCl2 EXTRACT	6	2014/04/24	2014/04/24	CAM SOP-00413	SM 4500H+ B
Sodium Adsorption Ratio (SAR)	6	2014/04/19	2014/04/28	CAM SOP-00102	EPA 6010
Volatile Organic Compounds in Soil	4	2014/04/21	2014/04/23	CAM SOP-00228	EPA 8260 modified

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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 the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

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

* Results relate only to the items tested.

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

Encryption Key

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

Sara Singh, B.Sc, Senior Project Manager
Email: sarasingh@maxxam.ca
Phone# (905) 817-5821

=====
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.

Total cover pages: 1

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

RESULTS OF ANALYSES OF SOIL

Maxxam ID		VP2724		VP2725	VP2726		VP2727		VP2728		
Sampling Date		2014/04/16		2014/04/16	2014/04/17		2014/04/17		2014/04/16		
	Units	BH1 (5'-7')	QC Batch	BH2 (5'-7')	BH3 (2'-3')	QC Batch	BH4 (1'-2')	QC Batch	BH1 (13'-14')	RDL	QC Batch
Calculated Parameters											
Sodium Adsorption Ratio	N/A	3.1	3578112	9.5	31	3578112	22	3578112	1.1		3578112
Inorganics											
Chromium (VI)	ug/g	<0.2	3581429	<0.2	<0.2	3579863	<0.2	3581429	<0.2	0.2	3579863
Conductivity	mS/cm	0.29	3584129	2.0	1.6	3584129	2.1	3584129	0.27	0.002	3584129
Free Cyanide	ug/g	<0.01	3580530	0.13	<0.01	3580530	<0.01	3580530	<0.01	0.01	3580530
Moisture	%	15	3579374	19	13	3579374	9.6	3579374	7.0	1.0	3579374
Available (CaCl2) pH	pH	7.50	3582553	7.22	7.79	3582553	7.62	3582553	7.87		3582553

Maxxam ID		VP2729		VP2730	VP2731	VP2732	VP2733			
Sampling Date		2014/04/17		2014/04/16	2014/04/16	2014/04/17	2014/04/17			
	Units	BH4 (10'-12')	QC Batch	BH1 SS12 (40'-41.5')	BH2 SS3 (5'-7')	BH3 SS2 (2.5'-3')	BH4 SS11 (35'-36"2')	RDL	QC Batch	
Calculated Parameters										
Sodium Adsorption Ratio	N/A	0.84	3578112							
Inorganics										
Chromium (VI)	ug/g	<0.2	3581429					0.2		
Conductivity	mS/cm	0.19	3584129					0.002		
Free Cyanide	ug/g	<0.01	3580530					0.01		
Moisture	%	4.1	3579374	20	16	18	14	1.0		3579010
Available (CaCl2) pH	pH	8.02	3582553							

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		VP2724		VP2725		
Sampling Date		2014/04/16		2014/04/16		
	Units	BH1 (5'-7')	QC Batch	BH2 (5'-7')	RDL	QC Batch
Metals						
Hot Water Ext. Boron (B)	ug/g	0.76	3587391	1.4	0.050	3584136
Acid Extractable Antimony (Sb)	ug/g	<0.20	3582884	0.39	0.20	3582884
Acid Extractable Arsenic (As)	ug/g	4.9	3582884	5.2	1.0	3582884
Acid Extractable Barium (Ba)	ug/g	100	3582884	64	0.50	3582884
Acid Extractable Beryllium (Be)	ug/g	0.38	3582884	0.44	0.20	3582884
Acid Extractable Boron (B)	ug/g	<5.0	3582884	5.1	5.0	3582884
Acid Extractable Cadmium (Cd)	ug/g	0.18	3582884	0.32	0.10	3582884
Acid Extractable Chromium (Cr)	ug/g	12	3582884	45	1.0	3582884
Acid Extractable Cobalt (Co)	ug/g	6.3	3582884	8.1	0.10	3582884
Acid Extractable Copper (Cu)	ug/g	30	3582884	31	0.50	3582884
Acid Extractable Lead (Pb)	ug/g	49	3582884	30	1.0	3582884
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	3582884	<0.50	0.50	3582884
Acid Extractable Nickel (Ni)	ug/g	12	3582884	16	0.50	3582884
Acid Extractable Selenium (Se)	ug/g	<0.50	3582884	<0.50	0.50	3582884
Acid Extractable Silver (Ag)	ug/g	<0.20	3582884	<0.20	0.20	3582884
Acid Extractable Thallium (Tl)	ug/g	0.081	3582884	0.084	0.050	3582884
Acid Extractable Uranium (U)	ug/g	0.27	3582884	0.31	0.050	3582884
Acid Extractable Vanadium (V)	ug/g	19	3582884	21	5.0	3582884
Acid Extractable Zinc (Zn)	ug/g	51	3582884	60	5.0	3582884
Acid Extractable Mercury (Hg)	ug/g	0.18	3582884	<0.050	0.050	3582884

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Maxxam ID		VP2726		VP2727		VP2728		VP2729		
Sampling Date		2014/04/17		2014/04/17		2014/04/16		2014/04/17		
	Units	BH3 (2'-3')	QC Batch	BH4 (1'-2')	QC Batch	BH1 (13'-14')	QC Batch	BH4 (10'-12')	RDL	QC Batch
Metals										
Hot Water Ext. Boron (B)	ug/g	0.44	3587391	0.41	3584136	0.094	3587391	0.21	0.050	3584136
Acid Extractable Antimony (Sb)	ug/g	1.7	3582884	<0.20	3582884	<0.20	3582884	<0.20	0.20	3582884
Acid Extractable Arsenic (As)	ug/g	11	3582884	4.5	3582884	2.9	3582884	2.0	1.0	3582884
Acid Extractable Barium (Ba)	ug/g	140	3582884	67	3582884	25	3582884	8.6	0.50	3582884
Acid Extractable Beryllium (Be)	ug/g	0.39	3582884	0.39	3582884	<0.20	3582884	<0.20	0.20	3582884
Acid Extractable Boron (B)	ug/g	5.7	3582884	<5.0	3582884	<5.0	3582884	<5.0	5.0	3582884
Acid Extractable Cadmium (Cd)	ug/g	0.39	3582884	0.16	3582884	<0.10	3582884	<0.10	0.10	3582884
Acid Extractable Chromium (Cr)	ug/g	12	3582884	13	3582884	4.4	3582884	4.4	1.0	3582884
Acid Extractable Cobalt (Co)	ug/g	7.3	3582884	7.3	3582884	3.2	3582884	2.1	0.10	3582884
Acid Extractable Copper (Cu)	ug/g	81	3582884	38	3582884	31	3582884	18	0.50	3582884
Acid Extractable Lead (Pb)	ug/g	260	3582884	32	3582884	4.1	3582884	4.3	1.0	3582884
Acid Extractable Molybdenum (Mo)	ug/g	1.2	3582884	<0.50	3582884	<0.50	3582884	<0.50	0.50	3582884
Acid Extractable Nickel (Ni)	ug/g	14	3582884	15	3582884	5.9	3582884	3.7	0.50	3582884
Acid Extractable Selenium (Se)	ug/g	<0.50	3582884	<0.50	3582884	<0.50	3582884	<0.50	0.50	3582884
Acid Extractable Silver (Ag)	ug/g	0.24	3582884	<0.20	3582884	<0.20	3582884	<0.20	0.20	3582884
Acid Extractable Thallium (Tl)	ug/g	0.11	3582884	0.097	3582884	<0.050	3582884	<0.050	0.050	3582884
Acid Extractable Uranium (U)	ug/g	0.39	3582884	0.36	3582884	0.19	3582884	0.26	0.050	3582884
Acid Extractable Vanadium (V)	ug/g	22	3582884	20	3582884	10	3582884	13	5.0	3582884
Acid Extractable Zinc (Zn)	ug/g	150	3582884	58	3582884	24	3582884	19	5.0	3582884
Acid Extractable Mercury (Hg)	ug/g	1.1	3582884	0.14	3582884	<0.050	3582884	<0.050	0.050	3582884

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		VP2730	VP2731	VP2732	VP2733		
Sampling Date		2014/04/16	2014/04/16	2014/04/17	2014/04/17		
	Units	BH1 SS12 (40'-41.5')	BH2 SS3 (5'-7')	BH3 SS2 (2.5'-3')	BH4 SS11 (35'-36"2')	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578111
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3578641
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	3578641
Bromodichloromethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Bromoform	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Bromomethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Carbon Tetrachloride	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Chlorobenzene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Chloroform	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Dibromochloromethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,2-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,3-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,4-Dichlorobenzene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Dichlorodifluoromethane (FREON 12)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,1-Dichloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,2-Dichloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,1-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
cis-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
trans-1,2-Dichloroethylene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,2-Dichloropropane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	0.030	3578641
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	3578641
Ethylbenzene	ug/g	<0.020	<0.020	0.033	<0.020	0.020	3578641
Ethylene Dibromide	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Hexane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Methylene Chloride(Dichloromethane)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Methyl Isobutyl Ketone	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3578641
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	3578641
Methyl t-butyl ether (MTBE)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Styrene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,1,1,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,1,2,2-Tetrachloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Tetrachloroethylene	ug/g	0.091	0.10	<0.050	<0.050	0.050	3578641

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

VOLATILE ORGANICS BY GC/MS (SOIL)

Maxxam ID		VP2730	VP2731	VP2732	VP2733		
Sampling Date		2014/04/16	2014/04/16	2014/04/17	2014/04/17		
	Units	BH1 SS12 (40'-41.5')	BH2 SS3 (5'-7')	BH3 SS2 (2.5'-3')	BH4 SS11 (35'-36"2')	RDL	QC Batch
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	3578641
1,1,1-Trichloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
1,1,2-Trichloroethane	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Trichloroethylene	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Vinyl Chloride	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	3578641
p+m-Xylene	ug/g	<0.020	<0.020	0.066	<0.020	0.020	3578641
o-Xylene	ug/g	<0.020	<0.020	0.050	<0.020	0.020	3578641
Xylene (Total)	ug/g	<0.020	<0.020	0.12	<0.020	0.020	3578641
Trichlorofluoromethane (FREON 11)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	3578641
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	101	101	101	99		3578641
D10-o-Xylene	%	111	115	110	110		3578641
D4-1,2-Dichloroethane	%	93	93	91	93		3578641
D8-Toluene	%	96	96	96	96		3578641

 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

PETROLEUM HYDROCARBONS (CCME)

Maxxam ID		VP2730	VP2731	VP2732	VP2733		
Sampling Date		2014/04/16	2014/04/16	2014/04/17	2014/04/17		
	Units	BH1 SS12 (40'-41.5')	BH2 SS3 (5'-7')	BH3 SS2 (2.5'-3')	BH4 SS11 (35'-36''2')	RDL	QC Batch
BTEX & F1 Hydrocarbons							
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	3582850
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	3582850
F2-F4 Hydrocarbons							
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g			840		100	3585080
F2 (C10-C16 Hydrocarbons)	ug/g	<10	<10	12	<10	10	3583685
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	380	<50	50	3583685
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	250	<50	50	3583685
Reached Baseline at C50	ug/g	YES	YES	NO	YES		3583685
Surrogate Recovery (%)							
1,4-Difluorobenzene	%	90	91	90	90		3582850
4-Bromofluorobenzene	%	100	104	108	102		3582850
D10-Ethylbenzene	%	103	103	135	102		3582850
D4-1,2-Dichloroethane	%	89	92	91	91		3582850
o-Terphenyl	%	94	97	99	95		3583685

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

Test Summary

Maxxam ID VP2724
Sample ID BH1 (5'-7')
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3587391	2014/04/29	2014/04/29	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3581429	2014/04/23	2014/04/23	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam ID VP2725
Sample ID BH2 (5'-7')
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3584136	2014/04/25	2014/04/25	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3579863	2014/04/22	2014/04/22	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

Test Summary

Maxxam ID VP2726
Sample ID BH3 (2'-3')
Matrix Soil

Collected 2014/04/17
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3587391	2014/04/29	2014/04/29	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3579863	2014/04/22	2014/04/22	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam ID VP2727
Sample ID BH4 (1'-2')
Matrix Soil

Collected 2014/04/17
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3584136	2014/04/25	2014/04/25	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3581429	2014/04/23	2014/04/23	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

Test Summary

Maxxam ID VP2728
Sample ID BH1 (13'-14')
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3587391	2014/04/29	2014/04/29	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3579863	2014/04/22	2014/04/22	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam ID VP2729
Sample ID BH4 (10'-12')
Matrix Soil

Collected 2014/04/17
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3584136	2014/04/25	2014/04/25	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3580530	N/A	2014/04/23	Xuanhong Qiu
Conductivity	COND	3584129	N/A	2014/04/25	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3581429	2014/04/23	2014/04/23	Sally Coughlin
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3582884	2014/04/24	2014/04/25	Viviana Canzonieri
Moisture	BAL	3579374	N/A	2014/04/21	Valentina Kaftani
pH CaCl ₂ EXTRACT		3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3578112	2014/04/28	2014/04/28	Automated Statchk

Maxxam Job #: B463089
Report Date: 2014/04/30

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

Test Summary

Maxxam ID VP2730
Sample ID BH1 SS12 (40'-41.5')
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3578111	N/A	2014/04/24	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	3582850	2014/04/19	2014/04/24	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	3583685	2014/04/24	2014/04/24	Nicoleta Ciublea
Moisture	BAL	3579010	N/A	2014/04/21	Valentina Kaftani
Volatile Organic Compounds in Soil	GC/MS	3578641	2014/04/21	2014/04/23	James Zou

Maxxam ID VP2731
Sample ID BH2 SS3 (5'-7')
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3578111	N/A	2014/04/24	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	3582850	2014/04/19	2014/04/24	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	3583685	2014/04/24	2014/04/24	Nicoleta Ciublea
Moisture	BAL	3579010	N/A	2014/04/21	Valentina Kaftani
Volatile Organic Compounds in Soil	GC/MS	3578641	2014/04/21	2014/04/23	James Zou

Maxxam ID VP2732
Sample ID BH3 SS2 (2.5'-3')
Matrix Soil

Collected 2014/04/17
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3578111	N/A	2014/04/24	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	3582850	2014/04/19	2014/04/24	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	3583685	2014/04/24	2014/04/24	Nicoleta Ciublea
F4G (CCME Hydrocarbons Gravimetric)	BAL	3585080	2014/04/25	2014/04/26	Yeldho Mathai
Moisture	BAL	3579010	N/A	2014/04/21	Valentina Kaftani
Volatile Organic Compounds in Soil	GC/MS	3578641	2014/04/21	2014/04/23	James Zou

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

Test Summary

Maxxam ID VP2733
Sample ID BH4 SS11 (35'-36"2')
Matrix Soil

Collected 2014/04/17
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3578111	N/A	2014/04/24	Automated Statchk
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	3582850	2014/04/19	2014/04/24	Lincoln Ramdahin
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	3583685	2014/04/24	2014/04/24	Nicoleta Ciublea
Moisture	BAL	3579010	N/A	2014/04/21	Valentina Kaftani
Volatile Organic Compounds in Soil	GC/MS	3578641	2014/04/21	2014/04/23	James Zou

Maxxam Job #: B463089
Report Date: 2014/04/30

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

Package 1	5.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3578641	4-Bromofluorobenzene	2014/04/22	102	60 - 140	104	60 - 140	103	%				
3578641	D10-o-Xylene	2014/04/22	127	60 - 130	105	60 - 130	105	%				
3578641	D4-1,2-Dichloroethane	2014/04/22	90	60 - 140	94	60 - 140	94	%				
3578641	D8-Toluene	2014/04/22	100	60 - 140	98	60 - 140	95	%				
3578641	Acetone (2-Propanone)	2014/04/23	82	60 - 140	90	60 - 140	<0.50	ug/g	NC	50		
3578641	Benzene	2014/04/23	90	60 - 140	91	60 - 130	<0.020	ug/g	NC	50		
3578641	Bromodichloromethane	2014/04/23	90	60 - 140	93	60 - 130	<0.050	ug/g	NC	50		
3578641	Bromoform	2014/04/23	86	60 - 140	96	60 - 130	<0.050	ug/g	NC	50		
3578641	Bromomethane	2014/04/23	92	60 - 140	93	60 - 140	<0.050	ug/g	NC	50		
3578641	Carbon Tetrachloride	2014/04/23	93	60 - 140	92	60 - 130	<0.050	ug/g	NC	50		
3578641	Chlorobenzene	2014/04/23	95	60 - 140	96	60 - 130	<0.050	ug/g	NC	50		
3578641	Chloroform	2014/04/23	89	60 - 140	90	60 - 130	<0.050	ug/g	NC	50		
3578641	Dibromochloromethane	2014/04/23	90	60 - 140	95	60 - 130	<0.050	ug/g	NC	50		
3578641	1,2-Dichlorobenzene	2014/04/23	95	60 - 140	97	60 - 130	<0.050	ug/g	NC	50		
3578641	1,3-Dichlorobenzene	2014/04/23	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50		
3578641	1,4-Dichlorobenzene	2014/04/23	94	60 - 140	94	60 - 130	<0.050	ug/g	NC	50		
3578641	Dichlorodifluoromethane (FREON 12)	2014/04/23	70	60 - 140	88	60 - 140	<0.050	ug/g	NC	50		
3578641	1,1-Dichloroethane	2014/04/23	91	60 - 140	91	60 - 130	<0.050	ug/g	NC	50		
3578641	1,2-Dichloroethane	2014/04/23	86	60 - 140	90	60 - 130	<0.050	ug/g	NC	50		
3578641	1,1-Dichloroethylene	2014/04/23	100	60 - 140	98	60 - 130	<0.050	ug/g	NC	50		
3578641	cis-1,2-Dichloroethylene	2014/04/23	88	60 - 140	89	60 - 130	<0.050	ug/g	NC	50		
3578641	trans-1,2-Dichloroethylene	2014/04/23	89	60 - 140	89	60 - 130	<0.050	ug/g	NC	50		
3578641	1,2-Dichloropropane	2014/04/23	91	60 - 140	93	60 - 130	<0.050	ug/g	NC	50		
3578641	cis-1,3-Dichloropropene	2014/04/23	89	60 - 140	91	60 - 130	<0.030	ug/g	NC	50		
3578641	trans-1,3-Dichloropropene	2014/04/23	94	60 - 140	96	60 - 130	<0.040	ug/g	NC	50		
3578641	Ethylbenzene	2014/04/23	96	60 - 140	94	60 - 130	<0.020	ug/g	NC	50		
3578641	Ethylene Dibromide	2014/04/23	90	60 - 140	97	60 - 130	<0.050	ug/g	NC	50		
3578641	Hexane	2014/04/23	97	60 - 140	95	60 - 130	<0.050	ug/g	NC	50		
3578641	Methylene Chloride (Dichloromethane)	2014/04/23	91	60 - 140	94	60 - 130	<0.050	ug/g	NC	50		
3578641	Methyl Isobutyl Ketone	2014/04/23	84	60 - 140	99	60 - 130	<0.50	ug/g	NC	50		
3578641	Methyl Ethyl Ketone (2-Butanone)	2014/04/23	83	60 - 140	96	60 - 140	<0.50	ug/g	NC	50		
3578641	Methyl t-butyl ether (MTBE)	2014/04/23	92	60 - 140	94	60 - 130	<0.050	ug/g	NC	50		
3578641	Styrene	2014/04/23	101	60 - 140	103	60 - 130	<0.050	ug/g	NC	50		
3578641	1,1,1,2-Tetrachloroethane	2014/04/23	91	60 - 140	93	60 - 130	<0.050	ug/g	NC	50		
3578641	1,1,2,2-Tetrachloroethane	2014/04/23	87	60 - 140	99	60 - 130	<0.050	ug/g	NC	50		
3578641	Tetrachloroethylene	2014/04/23	97	60 - 140	96	60 - 130	<0.050	ug/g	NC	50		
3578641	Toluene	2014/04/23	92	60 - 140	91	60 - 130	<0.020	ug/g	NC	50		
3578641	1,1,1-Trichloroethane	2014/04/23	92	60 - 140	91	60 - 130	<0.050	ug/g	NC	50		
3578641	1,1,2-Trichloroethane	2014/04/23	83	60 - 140	88	60 - 130	<0.050	ug/g	NC	50		
3578641	Trichloroethylene	2014/04/23	96	60 - 140	96	60 - 130	<0.050	ug/g	NC	50		

Maxxam Job #: B463089
 Report Date: 2014/04/30

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3578641	Vinyl Chloride	2014/04/23	90	60 - 140	92	60 - 130	<0.020	ug/g	NC	50		
3578641	p+m-Xylene	2014/04/23	97	60 - 140	96	60 - 130	<0.020	ug/g	NC	50		
3578641	o-Xylene	2014/04/23	95	60 - 140	95	60 - 130	<0.020	ug/g	NC	50		
3578641	Trichlorofluoromethane (FREON 11)	2014/04/23	95	60 - 140	94	60 - 130	<0.050	ug/g	NC	50		
3578641	Xylene (Total)	2014/04/23					<0.020	ug/g	NC	50		
3579010	Moisture	2014/04/21							0.7	20		
3579374	Moisture	2014/04/21							4.5	20		
3579863	Chromium (VI)	2014/04/22	96	80 - 120	103	80 - 120	<0.2	ug/g	NC	35	121 ⁽¹⁾	80 - 120
3580530	Free Cyanide	2014/04/23	110	75 - 125	99	80 - 120	<0.01	ug/g	NC	35		
3581429	Chromium (VI)	2014/04/23	57 ^(1,2)	80 - 120	91	80 - 120	<0.2	ug/g	NC	35	115	80 - 120
3582850	1,4-Difluorobenzene	2014/04/24	83	60 - 140	90	60 - 140	93	%				
3582850	4-Bromofluorobenzene	2014/04/24	118	60 - 140	106	60 - 140	100	%				
3582850	D10-Ethylbenzene	2014/04/24	104	60 - 140	93	60 - 140	94	%				
3582850	D4-1,2-Dichloroethane	2014/04/24	81	60 - 140	90	60 - 140	93	%				
3582850	F1 (C6-C10)	2014/04/24	NC ⁽³⁾	60 - 140	91	80 - 120	<10	ug/g	0.6	50		
3582850	F1 (C6-C10) - BTEX	2014/04/24					<10	ug/g	0.6	50		
3582884	Acid Extractable Antimony (Sb)	2014/04/25	97	75 - 125	104	80 - 120	<0.20	ug/g	NC	30		
3582884	Acid Extractable Arsenic (As)	2014/04/25	100	75 - 125	101	80 - 120	<1.0	ug/g	0.9	30		
3582884	Acid Extractable Barium (Ba)	2014/04/25	NC	75 - 125	97	80 - 120	<0.50	ug/g	0.9	30		
3582884	Acid Extractable Beryllium (Be)	2014/04/25	105	75 - 125	103	80 - 120	<0.20	ug/g	NC	30		
3582884	Acid Extractable Boron (B)	2014/04/25	95	75 - 125	101	80 - 120	<5.0	ug/g	NC	30		
3582884	Acid Extractable Cadmium (Cd)	2014/04/25	101	75 - 125	102	80 - 120	<0.10	ug/g	NC	30		
3582884	Acid Extractable Chromium (Cr)	2014/04/25	NC	75 - 125	106	80 - 120	<1.0	ug/g	2.0	30		
3582884	Acid Extractable Cobalt (Co)	2014/04/25	105	75 - 125	105	80 - 120	<0.10	ug/g	0.4	30		
3582884	Acid Extractable Copper (Cu)	2014/04/25	NC	75 - 125	104	80 - 120	<0.50	ug/g	2.3	30		
3582884	Acid Extractable Lead (Pb)	2014/04/25	103	75 - 125	102	80 - 120	<1.0	ug/g	1.3	30		
3582884	Acid Extractable Molybdenum (Mo)	2014/04/25	102	75 - 125	102	80 - 120	<0.50	ug/g	NC	30		
3582884	Acid Extractable Nickel (Ni)	2014/04/25	NC	75 - 125	105	80 - 120	<0.50	ug/g	1.7	30		
3582884	Acid Extractable Selenium (Se)	2014/04/25	101	75 - 125	102	80 - 120	<0.50	ug/g	NC	30		
3582884	Acid Extractable Silver (Ag)	2014/04/25	102	75 - 125	103	80 - 120	<0.20	ug/g	NC	30		
3582884	Acid Extractable Thallium (Tl)	2014/04/25	92	75 - 125	91	80 - 120	<0.050	ug/g	NC	30		
3582884	Acid Extractable Uranium (U)	2014/04/25	100	75 - 125	100	80 - 120	<0.050	ug/g	0.04	30		
3582884	Acid Extractable Vanadium (V)	2014/04/25	NC	75 - 125	101	80 - 120	<5.0	ug/g	2.3	30		
3582884	Acid Extractable Zinc (Zn)	2014/04/25	NC	75 - 125	102	80 - 120	<5.0	ug/g	0.7	30		
3582884	Acid Extractable Mercury (Hg)	2014/04/25	100	75 - 125	93	80 - 120	<0.050	ug/g				
3583685	o-Terphenyl	2014/04/24	98	50 - 130	98	50 - 130	99	%				
3583685	F2 (C10-C16 Hydrocarbons)	2014/04/25	105	50 - 130	104	80 - 120	<10	ug/g	NC	30		
3583685	F3 (C16-C34 Hydrocarbons)	2014/04/25	100	50 - 130	99	80 - 120	<50	ug/g	NC	30		
3583685	F4 (C34-C50 Hydrocarbons)	2014/04/25	99	50 - 130	97	80 - 120	<50	ug/g	NC	30		
3584129	Conductivity	2014/04/25			100	90 - 110	<0.002	mS/cm	1.1	10		

Maxxam Job #: B463089
 Report Date: 2014/04/30

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3584136	Hot Water Ext. Boron (B)	2014/04/25	98	75 - 125	98	75 - 125	<0.050	ug/g	NC	40		
3585080	F4G-sg (Grav. Heavy Hydrocarbons)	2014/04/26	100	65 - 135	101	65 - 135	<100	ug/g	6.9	50		
3587391	Hot Water Ext. Boron (B)	2014/04/30	92	75 - 125	103	75 - 125	<0.050	ug/g	3.0	40		

N/A = Not Applicable

RPD = Relative Percent Difference

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

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

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

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

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

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

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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

(2) - The matrix spike recovery was below the lower control limit. This may be due in part to the reducing environment of the sample.

(3) - The recovery in the matrix spike was not calculated (NC), spike level <2 X native concentration .

Validation Signature Page

Maxxam Job #: B463089

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

Cristina Carriere

Cristina Carriere, Scientific Services

Ewa Pranjic


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

Suzana Popovic

Suzana Popovic, Supervisor, Hydrocarbons

=====

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.

INVOICE INFORMATION		REPORT INFORMATION (if differs from invoice)		PROJECT INFORMATION		MAXXAM JOB NUMBER	
Company Name: <u>EXP SERVICES INC.</u>		Company Name: _____		Quotation #: _____		CHAIN OF CUSTODY #	
Contact Name: <u>Dave Dennison</u>		Contact Name: <u>Aamna Avora</u>		P.O. #: _____		00	
Address: <u>1545 CLARK BLVD.</u>		Address: _____		Project #: <u>BRM00603467-B</u>			
Phone: _____ Fax: _____		Phone: _____ Fax: _____		Site Location: <u>71-79 Main Street South</u>			
Email: <u>dave.dennison@exp.com</u>		Email: <u>aamna.avora@exp.com</u>		Site #: <u>Georgetown</u>			
				Sampled By: _____			

Note: For MOE Regulated Drinking Water samples, please use the Drinking Water CoC.

ANALYSIS REQUESTED (Please be specific)

TURNAROUND TIME (TAT) REQUIRED

Regulation 153 (2011)		Other Regulations	
Table 1	<input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine	CCME	<input type="checkbox"/> Sanitary Sewer Bylaw
<input checked="" type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse	Reg. 558	<input type="checkbox"/> Storm Sewer Bylaw
Table 3	<input type="checkbox"/> Agri/Other For RSC	MISA	Municipality: _____
Table _____	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	PWGO	Other (specify): _____

MOE Regulated Drinking Water? (Y/N)	
Metals Field Filtered? (Y/N)	BTE x 1PAC CF1-F4

PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS.

Regular (Standard) TAT: (5-7 working days for most tests)

Rush TAT: 1 day 2 days 3 days

Rush Confirmation #: PN _____

Date Req'd: _____

TATs for certain tests are > 5 days. Please contact your Project Manager for details.

Include Criteria on Certificate of Analysis (Y/N)?
SAMPLES MUST BE KEPT COOL (<10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM.

Sample Identification	Date Sampled	Time Sampled	Matrix (GW, SW, Soil, etc.)	MOE Regulated Drinking Water? (Y/N)	Metals Field Filtered? (Y/N)	# of Cont.	COMMENTS / TAT COMMENTS
1 BH3 S55 (10'-12')	April 28, 14		Soil	✓			6-May-14 14:50 Sara Singh
2							
3							
4							
5							
6							
7							
8							
9							
10							

*RELINQUISHED BY (Signature/Print)	Date (YYYY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date (YYYY/MM/DD)	Time	# JARS USED AND NOT SUBMITTED	Laboratory Use Only	
<u>Aamna Avora</u>	2014/05/06	11:50	<u>Dave Dennison</u>	2014/05/06	14:30		Custody Seal	Temperature (°C) on Receipt
<u>Aamna Avora</u>			<u>Dave Dennison</u>				Present	4/4/10°C
							Intact	

Your Project #: BRM00603467-B
 Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
 Your C.O.C. #: NA

Attention: Aamna Arora

exp Services Inc
 1595 Clark Blvd
 Brampton, ON
 L6T 4V1

Report Date: 2014/05/12
Report #: R3026711
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B473939
Received: 2014/05/06, 14:50

Sample Matrix: Soil
 # Samples Received: 1

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Petroleum Hydro. CCME F1 & BTEX in Soil	1	2014/05/07	2014/05/12	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Soil	1	2014/05/09	2014/05/09	CAM SOP-00316	CCME CWS
Moisture	1	N/A	2014/05/08	CAM SOP-00445	R.Carter,1993

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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 the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

- * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- * Results relate only to the items tested.

Encryption Key

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

Sara Singh, B.Sc, Senior Project Manager
 Email: sarasingh@maxxam.ca
 Phone# (905) 817-5821

=====
 Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section

Maxxam Job #: B473939
Report Date: 2014/05/12

exp Services Inc
Client Project #: BRM00603467-B
Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
Sampler Initials: ??

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5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 2

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Maxxam Job #: B473939
 Report Date: 2014/05/12

exp Services Inc
 Client Project #: BRM00603467-B
 Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
 Sampler Initials: ??

O.REG 153 PETROLEUM HYDROCARBONS (SOIL)

Maxxam ID		VU4956		
Sampling Date		2014/04/28		
	Units	BH3 SS5 (10'-12')	RDL	QC Batch
Inorganics				
Moisture	%	7.0	1.0	3598993
BTEX & F1 Hydrocarbons				
Benzene	ug/g	<0.020	0.020	3601724
Toluene	ug/g	<0.020	0.020	3601724
Ethylbenzene	ug/g	<0.020	0.020	3601724
o-Xylene	ug/g	<0.020	0.020	3601724
p+m-Xylene	ug/g	<0.040	0.040	3601724
Total Xylenes	ug/g	<0.040	0.040	3601724
F1 (C6-C10)	ug/g	<10	10	3601724
F1 (C6-C10) - BTEX	ug/g	<10	10	3601724
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	<10	10	3600940
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	3600940
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	3600940
Reached Baseline at C50	ug/g	YES		3600940
Surrogate Recovery (%)				
1,4-Difluorobenzene	%	96		3601724
4-Bromofluorobenzene	%	100		3601724
D10-Ethylbenzene	%	123		3601724
D4-1,2-Dichloroethane	%	101		3601724
o-Terphenyl	%	98		3600940

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B473939
Report Date: 2014/05/12

exp Services Inc
Client Project #: BRM00603467-B
Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
Sampler Initials: ??

Test Summary

Maxxam ID VU4956
Sample ID BH3 SS5 (10'-12')
Matrix Soil

Collected 2014/04/28
Shipped
Received 2014/05/06

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Petroleum Hydro. CCME F1 & BTEX in Soil	HSGC/MSFD	3601724	2014/05/07	2014/05/12	Abdikarim Ali
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	3600940	2014/05/09	2014/05/09	Jolanta Kawzowicz
Moisture	BAL	3598993	N/A	2014/05/08	Min Yang

Maxxam Job #: B473939
Report Date: 2014/05/12

exp Services Inc
Client Project #: BRM00603467-B
Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
Sampler Initials: ??

Package 1	6.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B473939
 Report Date: 2014/05/12

exp Services Inc
 Client Project #: BRM00603467-B
 Site Location: 71-79 MAIN STREET SOUTH, GEORGETOWN
 Sampler Initials: ??

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3598993	Moisture	2014/05/08							4.5	20
3600940	o-Terphenyl	2014/05/09	98	50 - 130	97	50 - 130	100	%		
3600940	F2 (C10-C16 Hydrocarbons)	2014/05/09	100	50 - 130	95	80 - 120	<10	ug/g	NC	30
3600940	F3 (C16-C34 Hydrocarbons)	2014/05/09	107	50 - 130	102	80 - 120	<50	ug/g	NC	30
3600940	F4 (C34-C50 Hydrocarbons)	2014/05/09	111	50 - 130	107	80 - 120	<50	ug/g	NC	30
3601724	1,4-Difluorobenzene	2014/05/12	92	60 - 140	92	60 - 140	95	%		
3601724	4-Bromofluorobenzene	2014/05/12	101	60 - 140	103	60 - 140	98	%		
3601724	D10-Ethylbenzene	2014/05/12	82	60 - 140	78	60 - 140	84	%		
3601724	D4-1,2-Dichloroethane	2014/05/12	98	60 - 140	99	60 - 140	100	%		
3601724	Benzene	2014/05/11	79	60 - 140	79	60 - 140	<0.020	ug/g	NC	50
3601724	Toluene	2014/05/11	83	60 - 140	83	60 - 140	<0.020	ug/g	NC	50
3601724	Ethylbenzene	2014/05/11	85	60 - 140	87	60 - 140	<0.020	ug/g	NC	50
3601724	o-Xylene	2014/05/11	90	60 - 140	92	60 - 140	<0.020	ug/g	NC	50
3601724	p+m-Xylene	2014/05/11	79	60 - 140	81	60 - 140	<0.040	ug/g	NC	50
3601724	F1 (C6-C10)	2014/05/11	80	60 - 140	88	80 - 120	<10	ug/g	NC	50
3601724	Total Xylenes	2014/05/11					<0.040	ug/g	NC	50
3601724	F1 (C6-C10) - BTEX	2014/05/11					<10	ug/g	NC	50

N/A = Not Applicable

RPD = Relative Percent Difference

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.

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NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

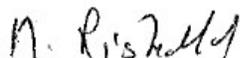
Validation Signature Page

Maxxam Job #: B473939

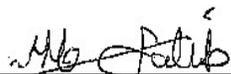
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).




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



Medhat Riskallah, Manager, Hydrocarbon Department



Mamdouh Salib, Analyst, Hydrocarbons

=====

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.

34144

Page 1 of 1

INVOICE INFORMATION	REPORT INFORMATION (if differs from invoice)	PROJECT INFORMATION	TURNAROUND TIME (TAT) REQUIRED
Company Name: EXP SERVICES INC.	Company Name: _____	Quotation #: _____	<input checked="" type="checkbox"/> Regular TAT (5-7 days)
Contact Name: DAVE DENNISON	Contact Name: Aamna Arora	P.O. #: _____	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: 1595 CLARK BLVD. BRAMPTON	Address: _____	Project #: BRM00 603467-60 (BRGE)	Rush TAT (Applicable Surcharge)
Phone: _____ Fax: _____	Phone: _____ Fax: _____	Site Location: 71-79 King St. South	<input type="checkbox"/> 1 Day (100%)
Email: dave.dennison@exp-wm	Email: aamna.arora@exp-wm	Site #: George town	<input type="checkbox"/> 2 Days (50%)
		Sampled By: _____	<input type="checkbox"/> 3-4 Days (25%)

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY		ANALYSIS REQUESTED	Rush Confirmation #:
REGULATION 153 (2011) <input type="checkbox"/> Table 1 <input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine <input checked="" type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> Table _____ FOR RSC (PLEASE CIRCLE) YES / NO	OTHER REGULATIONS <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> MISA <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> PWQO Municipality: _____ <input type="checkbox"/> Other (Specify): _____ <input type="checkbox"/> REG 558 (MINIMUM 3 DAY TAT REQUIRED)	FIELD FILTERED (PLEASE CIRCLE) Metals / Pb / CrVI Metals & CrVI. Inorganic Compounds	Date Required: _____ LABORATORY USE ONLY CUSTODY SEAL (Y/N) Present: <input checked="" type="checkbox"/> Intact: <input checked="" type="checkbox"/> COOLING MEDIA PRESENT (Y/N) <input checked="" type="checkbox"/>
Include Criteria on Certificate of Analysis (Y/N)? _____			Temperature (°C) on Receipt: 1/1/4°C
SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM			COMMENTS / TAT COMMENTS

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX	# OF CONT.	FIELD FILTERED (PLEASE CIRCLE) Metals / Pb / CrVI
1 BH2 SS4 (8'-9')	May 05		Soil	1	<input checked="" type="checkbox"/>
2 BH3 SS5 (10'-12')	May 05		"	1	<input checked="" type="checkbox"/>
3					
4					
5					
6					
7					
8					
9					
10					

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	# JARS USI AND NO. SUBMITTED
<i>ed dennison</i>	2014/05/13	12:59	<i>Ms. AARNA ARORA</i>	2014/05/13	12:59	

13-May-14 12:59

Sara Singh



B478730

M_P

ENV-618

Your Project #: BRM00603467-B0(GEO)
 Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
 Your C.O.C. #: 34144

Attention: David Dennison

exp Services Inc
 1595 Clark Blvd
 Brampton, ON
 L6T 4V1

Report Date: 2014/05/21
Report #: R3034512
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B478730

Received: 2014/05/13, 12:59

Sample Matrix: Soil
 # Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
Hot Water Extractable Boron	2	2014/05/20	2014/05/20	CAM SOP-00408	R153 Ana. Prot. 2011
Free (WAD) Cyanide	2	N/A	2014/05/20	CAM SOP-00457	Ontario MOE CN-E3015
Conductivity	2	N/A	2014/05/20	CAM SOP-00414	MOE LSB E3138 v2
Hexavalent Chromium in Soil by IC (1)	2	2014/05/16	2014/05/20	CAM SOP-00436	EPA SW846-3060/7199
Acid Extr. Metals (aqua regia) by ICPMS	2	2014/05/20	2014/05/20	CAM SOP-00447	EPA 6020
Moisture	2	N/A	2014/05/16	CAM SOP-00445	R.Carter,1993
pH CaCl2 EXTRACT	2	2014/05/16	2014/05/16	CAM SOP-00413	SM 4500H+ B
Sodium Adsorption Ratio (SAR)	2	2014/05/13	2014/05/20	CAM SOP-00102	EPA 6010

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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 the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

- * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- * Results relate only to the items tested.

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

Maxxam Job #: B478730
Report Date: 2014/05/21

exp Services Inc
Client Project #: BRM00603467-B0(GEO)
Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
Sampler Initials: GE

-2-

Encryption Key

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

Sara Singh, B.Sc, Senior Project Manager
Email: sarasingh@maxxam.ca
Phone# (905) 817-5821

=====
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.

Total cover pages: 2

Maxxam Job #: B478730
 Report Date: 2014/05/21

exp Services Inc
 Client Project #: BRM00603467-B0(GEO)
 Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
 Sampler Initials: GE

O.REG 153 METALS & INORGANICS PKG (SOIL)

Maxxam ID		VW8922	VW8923		
Sampling Date		2014/05/05	2014/05/05		
	Units	BH2 SS4 (8'-9')	BH3 SS5 (10'-12')	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.8	11		3603909
Inorganics					
Chromium (VI)	ug/g	<0.2	<0.2	0.2	3608331
Conductivity	mS/cm	0.46	0.69	0.002	3610705
Free Cyanide	ug/g	<0.01	<0.01	0.01	3608526
Moisture	%	8.8	6.3	1.0	3608665
Available (CaCl2) pH	pH	7.89	8.00		3608704
Metals					
Hot Water Ext. Boron (B)	ug/g	0.24	0.15	0.050	3610806
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	0.20	3610896
Acid Extractable Arsenic (As)	ug/g	3.2	2.4	1.0	3610896
Acid Extractable Barium (Ba)	ug/g	58	13	0.50	3610896
Acid Extractable Beryllium (Be)	ug/g	<0.20	<0.20	0.20	3610896
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	5.0	3610896
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	0.10	3610896
Acid Extractable Chromium (Cr)	ug/g	7.9	4.9	1.0	3610896
Acid Extractable Cobalt (Co)	ug/g	4.1	2.8	0.10	3610896
Acid Extractable Copper (Cu)	ug/g	20	24	0.50	3610896
Acid Extractable Lead (Pb)	ug/g	6.2	3.8	1.0	3610896
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	0.50	3610896
Acid Extractable Nickel (Ni)	ug/g	7.7	5.2	0.50	3610896
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	0.50	3610896
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	0.20	3610896
Acid Extractable Thallium (Tl)	ug/g	0.058	<0.050	0.050	3610896
Acid Extractable Uranium (U)	ug/g	0.33	0.22	0.050	3610896
Acid Extractable Vanadium (V)	ug/g	16	11	5.0	3610896
Acid Extractable Zinc (Zn)	ug/g	24	21	5.0	3610896
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.050	3610896

N/A = Not Applicable
 RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B478730
 Report Date: 2014/05/21

exp Services Inc
 Client Project #: BRM00603467-B0(GEO)
 Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
 Sampler Initials: GE

Test Summary

Maxxam ID VW8922
Sample ID BH2 SS4 (8'-9')
Matrix Soil

Collected 2014/05/05
Shipped
Received 2014/05/13

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3610806	2014/05/20	2014/05/20	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3608526	N/A	2014/05/20	Louise Harding
Conductivity	COND	3610705	N/A	2014/05/20	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3608331	2014/05/16	2014/05/20	Manoj Gera
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3610896	2014/05/20	2014/05/20	Viviana Canzonieri
Moisture	BAL	3608665	N/A	2014/05/16	Chamika Deeyagaha
pH CaCl ₂ EXTRACT		3608704	2014/05/16	2014/05/16	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3603909	2014/05/20	2014/05/20	Automated Statchk

Maxxam ID VW8923
Sample ID BH3 SS5 (10'-12')
Matrix Soil

Collected 2014/05/05
Shipped
Received 2014/05/13

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Hot Water Extractable Boron	ICP	3610806	2014/05/20	2014/05/20	Suban Kanapathippillai
Free (WAD) Cyanide	TECH	3608526	N/A	2014/05/20	Louise Harding
Conductivity	COND	3610705	N/A	2014/05/20	Lemeneh Addis
Hexavalent Chromium in Soil by IC	IC/SPEC	3608331	2014/05/16	2014/05/20	Manoj Gera
Acid Extr. Metals (aqua regia) by ICPMS	ICP/MS	3610896	2014/05/20	2014/05/20	Viviana Canzonieri
Moisture	BAL	3608665	N/A	2014/05/16	Chamika Deeyagaha
pH CaCl ₂ EXTRACT		3608704	2014/05/16	2014/05/16	Neil Dassanayake
Sodium Adsorption Ratio (SAR)	CALC/MET	3603909	2014/05/20	2014/05/20	Automated Statchk

Maxxam Job #: B478730
Report Date: 2014/05/21

exp Services Inc
Client Project #: BRM00603467-B0(GEO)
Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
Sampler Initials: GE

Package 1	2.0°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

Maxxam Job #: B478730
 Report Date: 2014/05/21

exp Services Inc
 Client Project #: BRM00603467-B0(GEO)
 Site Location: 71-79 KING ST.SOUTH, GEORGETOWN
 Sampler Initials: GE

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD		QC Standard	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits	% Recovery	QC Limits
3608331	Chromium (VI)	2014/05/20	32 ^(1, 2)	80 - 120	96	80 - 120	<0.2	ug/g	NC	35	106	80 - 120
3608526	Free Cyanide	2014/05/20	97	75 - 125	99	80 - 120	<0.01	ug/g	NC	35		
3608665	Moisture	2014/05/16							6.5	20		
3610705	Conductivity	2014/05/20			100	90 - 110	<0.002	mS/cm	2.9	10		
3610806	Hot Water Ext. Boron (B)	2014/05/20	100	75 - 125	105	75 - 125	<0.050	ug/g	0.1	40		
3610896	Acid Extractable Antimony (Sb)	2014/05/20	99	75 - 125	98	80 - 120	<0.20	ug/g	NC	30		
3610896	Acid Extractable Arsenic (As)	2014/05/20	97	75 - 125	98	80 - 120	<1.0	ug/g	NC	30		
3610896	Acid Extractable Barium (Ba)	2014/05/20	94	75 - 125	99	80 - 120	<0.50	ug/g	6.3	30		
3610896	Acid Extractable Beryllium (Be)	2014/05/20	108	75 - 125	106	80 - 120	<0.20	ug/g	NC	30		
3610896	Acid Extractable Boron (B)	2014/05/20	106	75 - 125	103	80 - 120	<5.0	ug/g	NC	30		
3610896	Acid Extractable Cadmium (Cd)	2014/05/20	98	75 - 125	107	80 - 120	<0.10	ug/g	NC	30		
3610896	Acid Extractable Chromium (Cr)	2014/05/20	101	75 - 125	102	80 - 120	<1.0	ug/g	3.6	30		
3610896	Acid Extractable Cobalt (Co)	2014/05/20	100	75 - 125	103	80 - 120	<0.10	ug/g	12.7	30		
3610896	Acid Extractable Copper (Cu)	2014/05/20	99	75 - 125	101	80 - 120	<0.50	ug/g	8.5	30		
3610896	Acid Extractable Lead (Pb)	2014/05/20	97	75 - 125	105	80 - 120	<1.0	ug/g	6.8	30		
3610896	Acid Extractable Molybdenum (Mo)	2014/05/20	101	75 - 125	101	80 - 120	<0.50	ug/g	NC	30		
3610896	Acid Extractable Nickel (Ni)	2014/05/20	98	75 - 125	102	80 - 120	<0.50	ug/g	4.2	30		
3610896	Acid Extractable Selenium (Se)	2014/05/20	99	75 - 125	101	80 - 120	<0.50	ug/g	NC	30		
3610896	Acid Extractable Silver (Ag)	2014/05/20	99	75 - 125	103	80 - 120	<0.20	ug/g	NC	30		
3610896	Acid Extractable Thallium (Tl)	2014/05/20	93	75 - 125	99	80 - 120	<0.050	ug/g	NC	30		
3610896	Acid Extractable Uranium (U)	2014/05/20	100	75 - 125	103	80 - 120	<0.050	ug/g	7.2	30		
3610896	Acid Extractable Vanadium (V)	2014/05/20	101	75 - 125	100	80 - 120	<5.0	ug/g	NC	30		
3610896	Acid Extractable Zinc (Zn)	2014/05/20	NC	75 - 125	105	80 - 120	<5.0	ug/g	10.1	30		
3610896	Acid Extractable Mercury (Hg)	2014/05/20	98	75 - 125	100	80 - 120	<0.050	ug/g				

N/A = Not Applicable

RPD = Relative Percent Difference

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

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

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

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

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

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 not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

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

(2) - The recovery of chromium VI in the matrix spike was below the acceptance criteria. The sample was reanalyzed with the same results

Validation Signature Page

Maxxam Job #: B478730

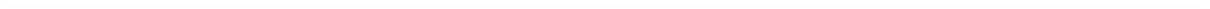
The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

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

=====
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Groundwater Analyses



INVOICE INFORMATION	REPORT INFORMATION (if differs from invoice)	PROJECT INFORMATION	TURNAROUND TIME (TAT) REQUIRED
Company Name: <u>EXP SERVICES INC.</u>	Company Name: _____	Quotation #: _____	<input checked="" type="checkbox"/> Regular TAT (5-7 days)
Contact Name: <u>Dave Dennison</u>	Contact Name: <u>Aamna Arora</u>	P.O. #: _____	PLEASE PROVIDE ADVANCE NOTICE FOR RUSH PROJECTS
Address: <u>1595 Clark Blvd</u> <u>BRAMPTON</u>	Address: _____	Project #: <u>BRM00 603467-80</u>	Rush TAT (Applicable Surcharge)
Phone: _____ Fax: _____	Phone: _____ Fax: _____	Site Location: <u>71-79 King St. South</u>	<input type="checkbox"/> 1 Day (100%)
Email: <u>dave.dennison@exp.com</u>	Email: <u>aaamna-arora@exp.com</u>	Site #: <u>George town, ON</u>	<input type="checkbox"/> 2 Days (50%)
		Sampled By: <u>AA</u>	<input type="checkbox"/> 3-4 Days (25%)

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE MAXXAM DRINKING WATER CHAIN OF CUSTODY		ANALYSIS REQUESTED	Rush Confirmation #:
REGULATION 153 (2011) <input type="checkbox"/> Table 1 <input checked="" type="checkbox"/> Res/Park <input type="checkbox"/> Med/Fine <input checked="" type="checkbox"/> Table 2 <input type="checkbox"/> Ind/Comm <input checked="" type="checkbox"/> Coarse <input type="checkbox"/> Table 3 <input type="checkbox"/> Agri/Other <input type="checkbox"/> Table _____ FOR RSC (PLEASE CIRCLE) YES / <input checked="" type="radio"/> NO	OTHER REGULATIONS <input type="checkbox"/> CCME <input type="checkbox"/> Sanitary Sewer Bylaw <input type="checkbox"/> MISA <input type="checkbox"/> Storm Sewer Bylaw <input type="checkbox"/> PWQO Municipality: _____ <input type="checkbox"/> Other (Specify): _____ <input type="checkbox"/> REG 558 (MINIMUM 3 DAY TAT REQUIRED)	(GVI) (Hg) (Metals) FIELD FILTERED (PLEASE CIRCLE) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES VOC, BTEX (PHC CFI-F9) Metals & Gen Inorganic Compds	Date Required: _____ LABORATORY USE ONLY CUSTODY SEAL (Y/N) Present: <u>Y</u> Intact: <u>Y</u> COOLING MEDIA PRESENT (Y/N) <u>Y</u> Temperature (°C) on Receipt: <u>12/12/14°C</u>

SAMPLES MUST BE KEPT COOL (< 10 °C) FROM TIME OF SAMPLING UNTIL DELIVERY TO MAXXAM					FIELD FILTERED (PLEASE CIRCLE) <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES	COMMENTS / TAT COMMENTS
SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX	# OF CONT.		
1 BH1	Apr 21, 14	pm	GW		<input checked="" type="checkbox"/>	- Please filter Metals in the Lab. NOT field filtered Aamna Arora (416-710-0016)
2 BH4	Apr 21, 14	pm	GW		<input checked="" type="checkbox"/>	
3						
4						
5						
6						
7						
8						
9						
10						

RELINQUISHED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	RECEIVED BY: (Signature/Print)	DATE: (YYYY/MM/DD)	TIME:	# JARS USE AND NOT SUBMITTED
<u>[Signature]</u>	<u>2014/04/21</u>	<u>16:05</u>	<u>[Signature]</u> FANG WANG	<u>2014/04/21</u>	<u>16:08</u>	

21-Apr-14 16:08
 Sara Singh

 B463618
 CG2 ENV-632

Your Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Your C.O.C. #: 36807

Attention: Aamna Arora

exp Services Inc
 1595 Clark Blvd
 Brampton, ON
 L6T 4V1

Report Date: 2014/04/28
Report #: R3013554
Version: 1

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B463618

Received: 2014/04/21, 16:08

Sample Matrix: Water
 # Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Method Reference
1,3-Dichloropropene Sum	2	N/A	2014/04/25	CAM SOP-00226	EPA 8260
Chloride by Automated Colourimetry	2	N/A	2014/04/23	CAM SOP-00463	EPA 325.2
Chromium (VI) in Water	2	N/A	2014/04/23	CAM SOP-00436	EPA 7199
Free (WAD) Cyanide	2	N/A	2014/04/23	CAM SOP-00457	Ontario MOE CN-E3015
Petroleum Hydro. CCME F1 & BTEX in Water	2	N/A	2014/04/25	CAM SOP-00315	CCME CWS
Petroleum Hydrocarbons F2-F4 in Water	2	2014/04/25	2014/04/25	CAM SOP-00316	CCME Hydrocarbons
Mercury	2	2014/04/24	2014/04/25	CAM SOP-00453	SW-846 7470A
Lab Filtered Metals by ICPMS	1	2014/04/23	2014/04/23	CAM SOP-00447	EPA 6020
Dissolved Metals by ICPMS	1	N/A	2014/04/28	CAM SOP-00447	EPA 6020
Volatile Organic Compounds in Water	2	N/A	2014/04/24	CAM SOP 00228	EPA 8260 modified

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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 the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

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

* Results relate only to the items tested.

Maxxam Job #: B463618
Report Date: 2014/04/28

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
Sampler Initials: AA

-2-

Encryption Key

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

Sara Singh, B.Sc, Senior Project Manager
Email: sarasingh@maxxam.ca
Phone# (905) 817-5821

=====
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.

Total cover pages: 2

Maxxam Job #: B463618
 Report Date: 2014/04/28

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

O.REG 153 ICPMS METALS (LAB FILTERED)

Maxxam ID		VP5276		
Sampling Date		2014/04/21		
	Units	BH1	RDL	QC Batch
Metals				
Dissolved Antimony (Sb)	ug/L	<0.50	0.50	3581096
Dissolved Arsenic (As)	ug/L	<1.0	1.0	3581096
Dissolved Barium (Ba)	ug/L	330	2.0	3581096
Dissolved Beryllium (Be)	ug/L	<0.50	0.50	3581096
Dissolved Boron (B)	ug/L	150	10	3581096
Dissolved Cadmium (Cd)	ug/L	<0.10	0.10	3581096
Dissolved Chromium (Cr)	ug/L	<5.0	5.0	3581096
Dissolved Cobalt (Co)	ug/L	0.57	0.50	3581096
Dissolved Copper (Cu)	ug/L	1.2	1.0	3581096
Dissolved Lead (Pb)	ug/L	<0.50	0.50	3581096
Dissolved Molybdenum (Mo)	ug/L	7.3	0.50	3581096
Dissolved Nickel (Ni)	ug/L	2.0	1.0	3581096
Dissolved Selenium (Se)	ug/L	4.6	2.0	3581096
Dissolved Silver (Ag)	ug/L	<0.10	0.10	3581096
Dissolved Sodium (Na)	ug/L	230000	100	3581096
Dissolved Thallium (Tl)	ug/L	0.061	0.050	3581096
Dissolved Uranium (U)	ug/L	2.4	0.10	3581096
Dissolved Vanadium (V)	ug/L	0.54	0.50	3581096
Dissolved Zinc (Zn)	ug/L	<5.0	5.0	3581096

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463618
 Report Date: 2014/04/28

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

O.REG 153 METALS & INORGANICS PKG (WTR)

Maxxam ID		VP5276	VP5276	VP5277		
Sampling Date		2014/04/21	2014/04/21	2014/04/21		
	Units	BH1	BH1 Lab-Dup	BH4	RDL	QC Batch
Inorganics						
Free Cyanide	ug/L	<2		<2	2	3580858
Dissolved Chloride (Cl)	mg/L	400		440	5	3580885
Metals						
Chromium (VI)	ug/L	0.51	0.51	0.61	0.50	3580735
Mercury (Hg)	ug/L	<0.1	<0.1	<0.1	0.1	3582778
Dissolved Antimony (Sb)	ug/L			<0.50	0.50	3582716
Dissolved Arsenic (As)	ug/L			<1.0	1.0	3582716
Dissolved Barium (Ba)	ug/L			180	2.0	3582716
Dissolved Beryllium (Be)	ug/L			<0.50	0.50	3582716
Dissolved Boron (B)	ug/L			73	10	3582716
Dissolved Cadmium (Cd)	ug/L			<0.10	0.10	3582716
Dissolved Chromium (Cr)	ug/L			<5.0	5.0	3582716
Dissolved Cobalt (Co)	ug/L			<0.50	0.50	3582716
Dissolved Copper (Cu)	ug/L			1.1	1.0	3582716
Dissolved Lead (Pb)	ug/L			<0.50	0.50	3582716
Dissolved Molybdenum (Mo)	ug/L			1.6	0.50	3582716
Dissolved Nickel (Ni)	ug/L			<1.0	1.0	3582716
Dissolved Selenium (Se)	ug/L			<2.0	2.0	3582716
Dissolved Silver (Ag)	ug/L			<0.10	0.10	3582716
Dissolved Thallium (Tl)	ug/L			<0.050	0.050	3582716
Dissolved Uranium (U)	ug/L			1.2	0.10	3582716
Dissolved Vanadium (V)	ug/L			1.1	0.50	3582716
Dissolved Zinc (Zn)	ug/L			<5.0	5.0	3582716

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463618
 Report Date: 2014/04/28

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

O.REG 153 PETROLEUM HYDROCARBONS (WATER)

Maxxam ID		VP5276	VP5276	VP5277		
Sampling Date		2014/04/21	2014/04/21	2014/04/21		
	Units	BH1	BH1 Lab-Dup	BH4	RDL	QC Batch
BTEX & F1 Hydrocarbons						
F1 (C6-C10)	ug/L	<25	<25	<25	25	3583850
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	25	3583850
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/L	<100		<100	100	3584518
F3 (C16-C34 Hydrocarbons)	ug/L	<200		<200	200	3584518
F4 (C34-C50 Hydrocarbons)	ug/L	<200		<200	200	3584518
Reached Baseline at C50	ug/L	YES		YES		3584518
Surrogate Recovery (%)						
1,4-Difluorobenzene	%	101	102	103		3583850
4-Bromofluorobenzene	%	96	100	97		3583850
D10-Ethylbenzene	%	96	97	101		3583850
D4-1,2-Dichloroethane	%	92	94	96		3583850
o-Terphenyl	%	98		97		3584518

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463618
 Report Date: 2014/04/28

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

O.REG 153 VOLATILE ORGANICS (WATER)

Maxxam ID		VP5276	VP5277		
Sampling Date		2014/04/21	2014/04/21		
	Units	BH1	BH4	RDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	0.50	3579850
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	<10	10	3578696
Benzene	ug/L	<0.20	<0.20	0.20	3578696
Bromodichloromethane	ug/L	<0.50	<0.50	0.50	3578696
Bromoform	ug/L	<1.0	<1.0	1.0	3578696
Bromomethane	ug/L	<0.50	<0.50	0.50	3578696
Carbon Tetrachloride	ug/L	<0.20	<0.20	0.20	3578696
Chlorobenzene	ug/L	<0.20	<0.20	0.20	3578696
Chloroform	ug/L	0.53	0.31	0.20	3578696
Dibromochloromethane	ug/L	<0.50	<0.50	0.50	3578696
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	3578696
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	3578696
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	0.50	3578696
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	1.0	3578696
1,1-Dichloroethane	ug/L	<0.20	<0.20	0.20	3578696
1,2-Dichloroethane	ug/L	<0.50	<0.50	0.50	3578696
1,1-Dichloroethylene	ug/L	<0.20	<0.20	0.20	3578696
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	3578696
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	0.50	3578696
1,2-Dichloropropane	ug/L	<0.20	<0.20	0.20	3578696
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	0.30	3578696
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	0.40	3578696
Ethylbenzene	ug/L	<0.20	<0.20	0.20	3578696
Ethylene Dibromide	ug/L	<0.20	<0.20	0.20	3578696
Hexane	ug/L	<1.0	<1.0	1.0	3578696
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	2.0	3578696
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	5.0	3578696
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	10	3578696
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	0.50	3578696
Styrene	ug/L	<0.50	<0.50	0.50	3578696
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	3578696
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	0.50	3578696
Tetrachloroethylene	ug/L	38	12	0.20	3578696
Toluene	ug/L	0.39	<0.20	0.20	3578696

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463618
 Report Date: 2014/04/28

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

O.REG 153 VOLATILE ORGANICS (WATER)

Maxxam ID		VP5276	VP5277		
Sampling Date		2014/04/21	2014/04/21		
	Units	BH1	BH4	RDL	QC Batch
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	0.20	3578696
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	0.50	3578696
Trichloroethylene	ug/L	0.28	<0.20	0.20	3578696
Vinyl Chloride	ug/L	<0.20	<0.20	0.20	3578696
p+m-Xylene	ug/L	0.29	<0.20	0.20	3578696
o-Xylene	ug/L	<0.20	<0.20	0.20	3578696
Xylene (Total)	ug/L	0.29	<0.20	0.20	3578696
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	0.50	3578696
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	100	101		3578696
D4-1,2-Dichloroethane	%	106	112		3578696
D8-Toluene	%	94	93		3578696

RDL = Reportable Detection Limit
 QC Batch = Quality Control Batch

Maxxam Job #: B463618
Report Date: 2014/04/28

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
Sampler Initials: AA

Test Summary

Maxxam ID VP5276
Sample ID BH1
Matrix Water

Collected 2014/04/21
Shipped
Received 2014/04/21

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3579850	N/A	2014/04/25	Automated Statchk
Chloride by Automated Colourimetry	AC	3580885	N/A	2014/04/23	Alina Dobreanu
Chromium (VI) in Water	IC	3580735	N/A	2014/04/23	Lang Le
Free (WAD) Cyanide	TECH/CN	3580858	N/A	2014/04/23	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Wat	HSGC/MSFD	3583850	N/A	2014/04/25	Mamdouh Salib
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	3584518	2014/04/25	2014/04/25	Jolanta Kawzowicz
Mercury	CVAA	3582778	2014/04/24	2014/04/25	Ron Morrison
Lab Filtered Metals by ICPMS	ICP/MS	3581096	2014/04/23	2014/04/23	John Bowman
Volatile Organic Compounds in Water	GC/MS	3578696	N/A	2014/04/24	Nalini Ramballack

Maxxam ID VP5276 Dup
Sample ID BH1
Matrix Water

Collected 2014/04/21
Shipped
Received 2014/04/21

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
Chromium (VI) in Water	IC	3580735	N/A	2014/04/23	Lang Le
Petroleum Hydro. CCME F1 & BTEX in Wat	HSGC/MSFD	3583850	N/A	2014/04/25	Mamdouh Salib
Mercury	CVAA	3582778	2014/04/24	2014/04/25	Ron Morrison

Maxxam ID VP5277
Sample ID BH4
Matrix Water

Collected 2014/04/21
Shipped
Received 2014/04/21

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	3579850	N/A	2014/04/25	Automated Statchk
Chloride by Automated Colourimetry	AC	3580885	N/A	2014/04/23	Alina Dobreanu
Chromium (VI) in Water	IC	3580735	N/A	2014/04/23	Lang Le
Free (WAD) Cyanide	TECH/CN	3580858	N/A	2014/04/23	Xuanhong Qiu
Petroleum Hydro. CCME F1 & BTEX in Wat	HSGC/MSFD	3583850	N/A	2014/04/25	Mamdouh Salib
Petroleum Hydrocarbons F2-F4 in Water	GC/FID	3584518	2014/04/25	2014/04/25	Jolanta Kawzowicz
Mercury	CVAA	3582778	2014/04/24	2014/04/25	Ron Morrison
Dissolved Metals by ICPMS	ICP/MS	3582716	N/A	2014/04/28	John Bowman

Maxxam Job #: B463618
Report Date: 2014/04/28

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
Sampler Initials: AA

Test Summary

Volatile Organic Compounds in Water	GC/MS	3578696	N/A	2014/04/24	Nalini Ramballack
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Maxxam Job #: B463618
Report Date: 2014/04/28

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
Sampler Initials: AA

Package 1	12.7°C
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Each temperature is the average of up to three cooler temperatures taken at receipt

GENERAL COMMENTS

All F2-F4 sample bottles contained visible sediment, which was included in the extraction.

All sample vials contained visible sediment.

All Cyanide sample bottles contained visible sediment. Samples were decanted prior to analysis.

Sample VP5276-01: Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Sample VP5277-01: Total/Dissolved Chromium < Hexavalent Chromium: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Maxxam Job #: B463618
 Report Date: 2014/04/28

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3578696	4-Bromofluorobenzene	2014/04/24	104	70 - 130	106	70 - 130	102	%		
3578696	D4-1,2-Dichloroethane	2014/04/24	100	70 - 130	111	70 - 130	107	%		
3578696	D8-Toluene	2014/04/24	98	70 - 130	95	70 - 130	92	%		
3578696	Acetone (2-Propanone)	2014/04/24	103	60 - 140	104	60 - 140	<10	ug/L		
3578696	Benzene	2014/04/24	92	70 - 130	97	70 - 130	<0.20	ug/L		
3578696	Bromodichloromethane	2014/04/24	94	70 - 130	104	70 - 130	<0.50	ug/L		
3578696	Bromoform	2014/04/24	100	70 - 130	109	70 - 130	<1.0	ug/L		
3578696	Bromomethane	2014/04/24	93	60 - 140	106	60 - 140	<0.50	ug/L		
3578696	Carbon Tetrachloride	2014/04/24	90	70 - 130	101	70 - 130	<0.20	ug/L		
3578696	Chlorobenzene	2014/04/24	93	70 - 130	96	70 - 130	<0.20	ug/L		
3578696	Chloroform	2014/04/24	93	70 - 130	101	70 - 130	<0.20	ug/L		
3578696	Dibromochloromethane	2014/04/24	102	70 - 130	109	70 - 130	<0.50	ug/L		
3578696	1,2-Dichlorobenzene	2014/04/24	89	70 - 130	93	70 - 130	<0.50	ug/L		
3578696	1,3-Dichlorobenzene	2014/04/24	85	70 - 130	88	70 - 130	<0.50	ug/L		
3578696	1,4-Dichlorobenzene	2014/04/24	85	70 - 130	88	70 - 130	<0.50	ug/L		
3578696	Dichlorodifluoromethane (FREON 12)	2014/04/24	79	60 - 140	90	60 - 140	<1.0	ug/L		
3578696	1,1-Dichloroethane	2014/04/24	92	70 - 130	100	70 - 130	<0.20	ug/L		
3578696	1,2-Dichloroethane	2014/04/25	96	70 - 130	109	70 - 130	<0.50	ug/L	NC	30
3578696	1,1-Dichloroethylene	2014/04/24	94	70 - 130	104	70 - 130	<0.20	ug/L		
3578696	cis-1,2-Dichloroethylene	2014/04/24	88	70 - 130	97	70 - 130	<0.50	ug/L		
3578696	trans-1,2-Dichloroethylene	2014/04/24	86	70 - 130	94	70 - 130	<0.50	ug/L		
3578696	1,2-Dichloropropane	2014/04/24	93	70 - 130	99	70 - 130	<0.20	ug/L		
3578696	cis-1,3-Dichloropropene	2014/04/24	88	70 - 130	102	70 - 130	<0.30	ug/L		
3578696	trans-1,3-Dichloropropene	2014/04/24	88	70 - 130	107	70 - 130	<0.40	ug/L		
3578696	Ethylbenzene	2014/04/24	76	70 - 130	87	70 - 130	<0.20	ug/L		
3578696	Ethylene Dibromide	2014/04/25	101	70 - 130	108	70 - 130	<0.20	ug/L	NC	30
3578696	Hexane	2014/04/24	78	70 - 130	90	70 - 130	<1.0	ug/L		
3578696	MethyleneChloride(Dichloromethane)	2014/04/24	100	70 - 130	107	70 - 130	<2.0	ug/L		
3578696	Methyl Isobutyl Ketone	2014/04/24	94	70 - 130	109	70 - 130	<5.0	ug/L		
3578696	Methyl Ethyl Ketone (2-Butanone)	2014/04/24	106	60 - 140	119	60 - 140	<10	ug/L		
3578696	Methyl t-butyl ether (MTBE)	2014/04/25	93	70 - 130	96	70 - 130	<0.50	ug/L	0.4	30
3578696	Styrene	2014/04/24	90	70 - 130	95	70 - 130	<0.50	ug/L		
3578696	1,1,1,2-Tetrachloroethane	2014/04/24	96	70 - 130	101	70 - 130	<0.50	ug/L		
3578696	1,1,2,2-Tetrachloroethane	2014/04/24	88	70 - 130	105	70 - 130	<0.50	ug/L		
3578696	Tetrachloroethylene	2014/04/24	98	70 - 130	101	70 - 130	<0.20	ug/L		
3578696	Toluene	2014/04/24	89	70 - 130	90	70 - 130	<0.20	ug/L		
3578696	1,1,1-Trichloroethane	2014/04/24	89	70 - 130	98	70 - 130	<0.20	ug/L		
3578696	1,1,2-Trichloroethane	2014/04/24	89	70 - 130	101	70 - 130	<0.50	ug/L		
3578696	Trichloroethylene	2014/04/24	107	70 - 130	101	70 - 130	<0.20	ug/L		
3578696	Vinyl Chloride	2014/04/24	88	70 - 130	96	70 - 130	<0.20	ug/L		

Maxxam Job #: B463618
 Report Date: 2014/04/28

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3578696	p+m-Xylene	2014/04/24	88	70 - 130	87	70 - 130	<0.20	ug/L		
3578696	o-Xylene	2014/04/24	87	70 - 130	89	70 - 130	<0.20	ug/L		
3578696	Trichlorofluoromethane (FREON 11)	2014/04/24	91	70 - 130	102	70 - 130	<0.50	ug/L		
3578696	Xylene (Total)	2014/04/24					<0.20	ug/L		
3580735	Chromium (VI)	2014/04/23	99	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
3580858	Free Cyanide	2014/04/23	104	80 - 120	104	80 - 120	<2	ug/L	NC	20
3580885	Dissolved Chloride (Cl)	2014/04/23	NC	80 - 120	101	80 - 120	<1	mg/L	1.1	20
3581096	Dissolved Antimony (Sb)	2014/04/23	109	80 - 120	101	80 - 120	<0.50	ug/L		
3581096	Dissolved Arsenic (As)	2014/04/23	104	80 - 120	99	80 - 120	<1.0	ug/L		
3581096	Dissolved Barium (Ba)	2014/04/23	101	80 - 120	99	80 - 120	<2.0	ug/L		
3581096	Dissolved Beryllium (Be)	2014/04/23	107	80 - 120	103	80 - 120	<0.50	ug/L		
3581096	Dissolved Boron (B)	2014/04/23	110	80 - 120	104	80 - 120	<10	ug/L		
3581096	Dissolved Cadmium (Cd)	2014/04/23	107	80 - 120	101	80 - 120	<0.10	ug/L		
3581096	Dissolved Chromium (Cr)	2014/04/23	105	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
3581096	Dissolved Cobalt (Co)	2014/04/23	102	80 - 120	96	80 - 120	<0.50	ug/L		
3581096	Dissolved Copper (Cu)	2014/04/23	101	80 - 120	99	80 - 120	<1.0	ug/L		
3581096	Dissolved Lead (Pb)	2014/04/23	98	80 - 120	97	80 - 120	<0.50	ug/L		
3581096	Dissolved Molybdenum (Mo)	2014/04/23	105	80 - 120	99	80 - 120	<0.50	ug/L		
3581096	Dissolved Nickel (Ni)	2014/04/23	102	80 - 120	97	80 - 120	<1.0	ug/L		
3581096	Dissolved Selenium (Se)	2014/04/23	106	80 - 120	101	80 - 120	<2.0	ug/L		
3581096	Dissolved Silver (Ag)	2014/04/23	98	80 - 120	93	80 - 120	<0.10	ug/L		
3581096	Dissolved Sodium (Na)	2014/04/23	NC	80 - 120	99	80 - 120	<100	ug/L		
3581096	Dissolved Thallium (Tl)	2014/04/23	103	80 - 120	100	80 - 120	<0.050	ug/L		
3581096	Dissolved Uranium (U)	2014/04/23	101	80 - 120	96	80 - 120	<0.10	ug/L		
3581096	Dissolved Vanadium (V)	2014/04/23	105	80 - 120	98	80 - 120	<0.50	ug/L		
3581096	Dissolved Zinc (Zn)	2014/04/23	102	80 - 120	99	80 - 120	<5.0	ug/L		
3582716	Dissolved Antimony (Sb)	2014/04/25	107	80 - 120	107	80 - 120	<0.50	ug/L		
3582716	Dissolved Arsenic (As)	2014/04/25	98	80 - 120	99	80 - 120	<1.0	ug/L		
3582716	Dissolved Barium (Ba)	2014/04/25	101	80 - 120	104	80 - 120	<2.0	ug/L	0.8	20
3582716	Dissolved Beryllium (Be)	2014/04/25	100	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
3582716	Dissolved Boron (B)	2014/04/25	100	80 - 120	107	80 - 120	<10	ug/L	NC	20
3582716	Dissolved Cadmium (Cd)	2014/04/25	103	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
3582716	Dissolved Chromium (Cr)	2014/04/25	100	80 - 120	105	80 - 120	<5.0	ug/L	NC	20
3582716	Dissolved Cobalt (Co)	2014/04/25	98	80 - 120	103	80 - 120	<0.50	ug/L	NC	20
3582716	Dissolved Copper (Cu)	2014/04/25	98	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
3582716	Dissolved Lead (Pb)	2014/04/25	98	80 - 120	100	80 - 120	<0.50	ug/L	NC	20
3582716	Dissolved Molybdenum (Mo)	2014/04/25	105	80 - 120	102	80 - 120	<0.50	ug/L	1.6	20
3582716	Dissolved Nickel (Ni)	2014/04/25	98	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
3582716	Dissolved Selenium (Se)	2014/04/25	104	80 - 120	103	80 - 120	<2.0	ug/L		
3582716	Dissolved Silver (Ag)	2014/04/25	100	80 - 120	99	80 - 120	<0.10	ug/L	NC	20

Maxxam Job #: B463618
 Report Date: 2014/04/28

 exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST. SOUTH, GEORGETOWN, ON
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3582716	Dissolved Thallium (Tl)	2014/04/25	98	80 - 120	98	80 - 120	<0.050	ug/L	NC	20
3582716	Dissolved Uranium (U)	2014/04/25	100	80 - 120	99	80 - 120	<0.10	ug/L		
3582716	Dissolved Vanadium (V)	2014/04/25	102	80 - 120	105	80 - 120	0.80, RDL=0.50	ug/L	NC	20
3582716	Dissolved Zinc (Zn)	2014/04/25	100	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
3582778	Mercury (Hg)	2014/04/25	106	75 - 125	101	80 - 120	<0.1	ug/L	NC	20
3583850	1,4-Difluorobenzene	2014/04/25	105	70 - 130	105	70 - 130	103	%		
3583850	4-Bromofluorobenzene	2014/04/25	104	70 - 130	105	70 - 130	98	%		
3583850	D10-Ethylbenzene	2014/04/25	95	70 - 130	104	70 - 130	92	%		
3583850	D4-1,2-Dichloroethane	2014/04/25	93	70 - 130	100	70 - 130	96	%		
3583850	F1 (C6-C10)	2014/04/25	82	70 - 130	103	70 - 130	<25	ug/L	NC	30
3583850	F1 (C6-C10) - BTEX	2014/04/25					<25	ug/L	NC	30
3584518	o-Terphenyl	2014/04/25	100	60 - 130	102	60 - 130	97	%		
3584518	F2 (C10-C16 Hydrocarbons)	2014/04/25	97	50 - 130	98	60 - 130	<100	ug/L	NC	30
3584518	F3 (C16-C34 Hydrocarbons)	2014/04/25	99	50 - 130	100	60 - 130	<200	ug/L	NC	30
3584518	F4 (C34-C50 Hydrocarbons)	2014/04/25	100	50 - 130	101	60 - 130	<200	ug/L	NC	30

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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 not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

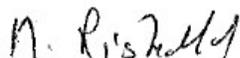
Validation Signature Page

Maxxam Job #: B463618

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




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



Medhat Riskallah, Manager, Hydrocarbon Department

=====

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.

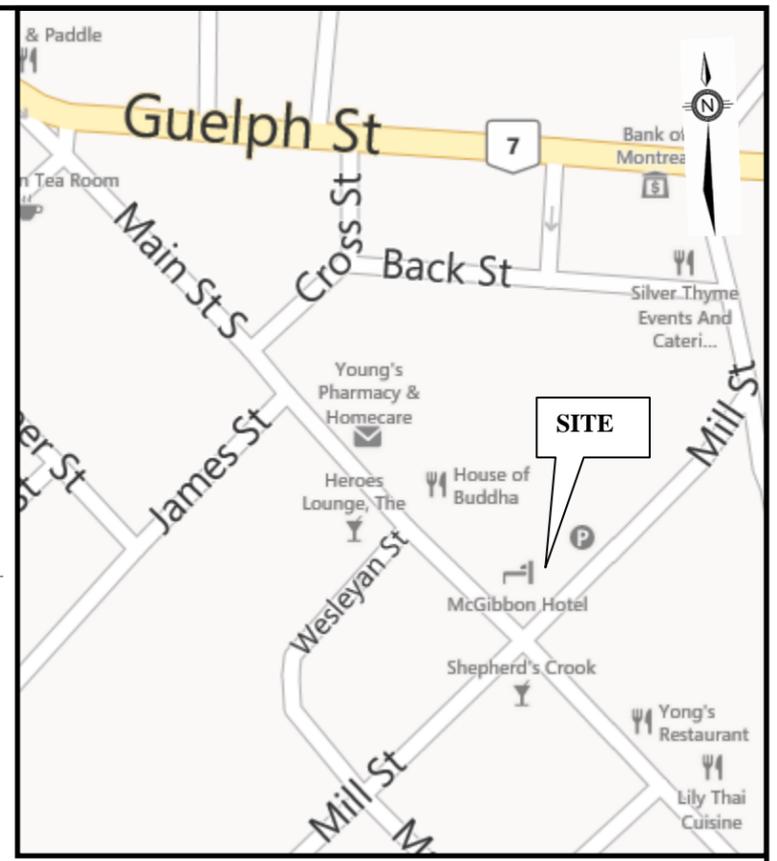
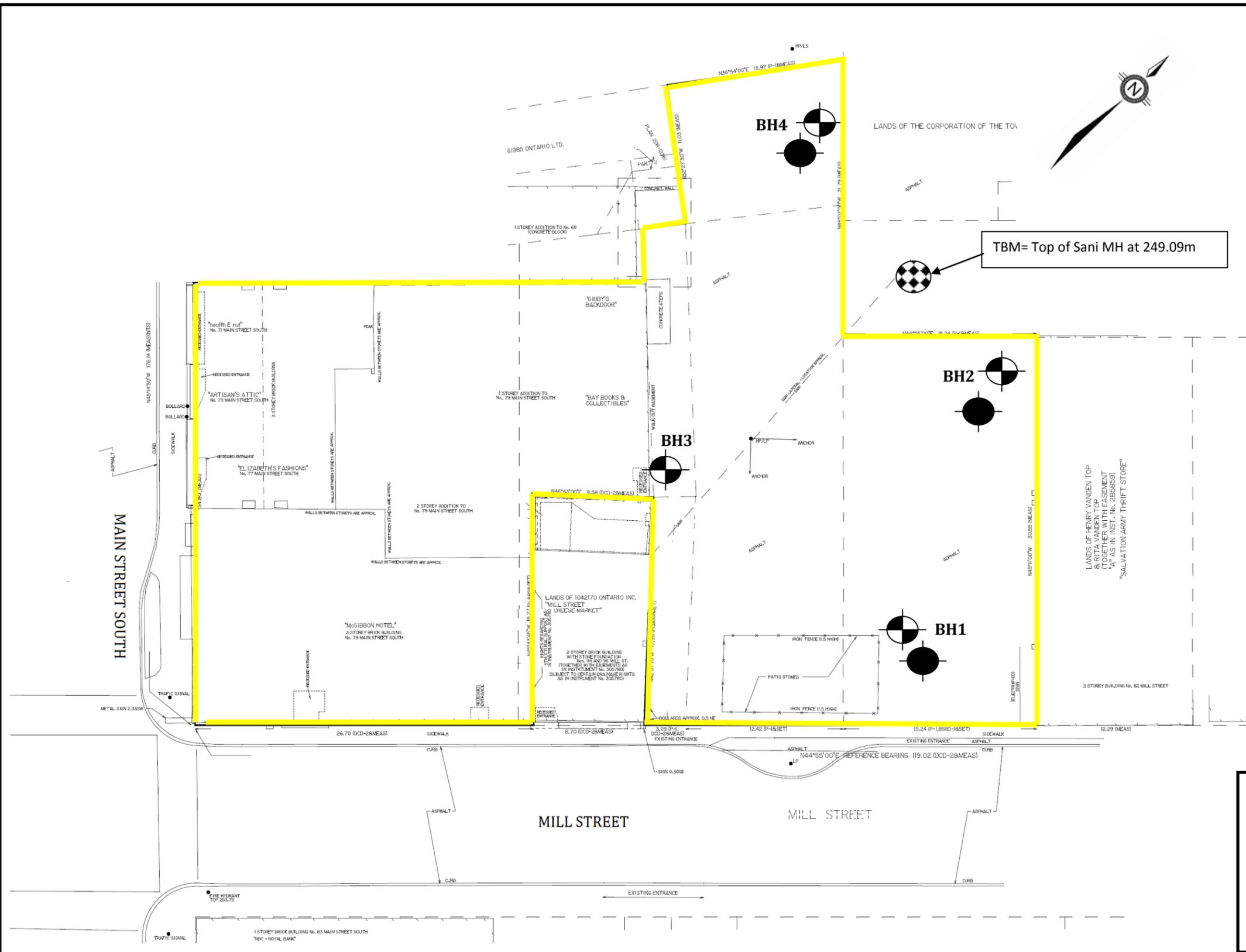
Drawings

Borehole and Monitoring Well Location Plan

Notes on Sample Descriptions

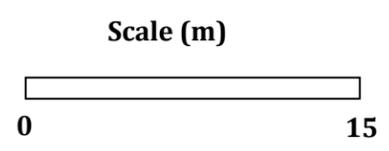
Borehole Logs





Legend

-  **Approximate Borehole Location**
-  **Approximate Gas Probe Location**



exp Services Inc.
 1595 Clark Boulevard
 Brampton, Ontario
 L6T 4V1
 Telephone: (905) 793-9800
 Fax: (905) 793-0641

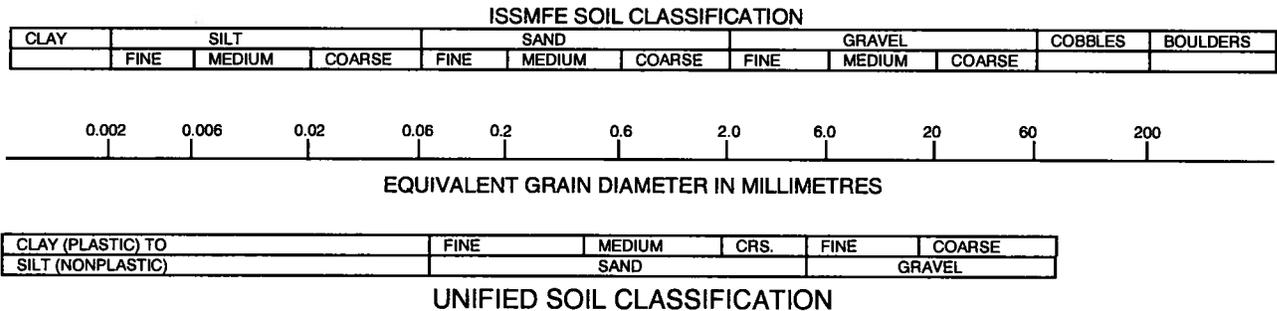
SCALE: As shown
DATE:
 April 2014
DWN.: AA **CHKD.:**

Borehole Location Plan
 Phase II Environmental Site Assessment
 71-79 Main Street South
 Georgetown, Town of Halton Hills, Ontario
PROJECT NO.:
 BRM-00603467-B0 **DWG. NO.:** 1

Notes On Sample Descriptions

Drawing 1A

1. All sample descriptions included in this report follow the Canadian Foundations Engineering Manual soil classification system. This system follows the standard proposed by the International Society for Soil Mechanics and Foundation Engineering. Laboratory grain size analyses provided by **exp** Services Inc. also follow the same system. Different classification systems may be used by others; one such system is the Unified Soil Classification. Please note that, with the exception of those samples where a grain size analysis has been made, all samples are classified visually. Visual classification is not sufficiently accurate to provide exact grain sizing or precise differentiation between size classification systems.



2. **Fill:** Where fill is designated on the borehole log it is defined as indicated by the sample recovered during the boring process. The reader is cautioned that fills are heterogeneous in nature and variable in density or degree of compaction. The borehole description may therefore not be applicable as a general description of site fill materials. All fills should be expected to contain obstruction such as wood, large concrete pieces or subsurface basements, floors, tanks, etc.; none of these may have been encountered in the boreholes. Since boreholes cannot accurately define the contents of the fill, test pits are recommended to provide supplementary information. Despite the use of test pits, the heterogeneous nature of fill will leave some ambiguity as to the exact composition of the fill. Most fills contain pockets, seams, or layers of organically contaminated soil. This organic material can result in the generation of methane gas and/or significant ongoing and future settlements. Fill at this site may have been monitored for the presence of methane gas and, if so, the results are given on the borehole logs. The monitoring process does not indicate the volume of gas that can be potentially generated nor does it pinpoint the source of the gas. These readings are to advise of the presence of gas only, and a detailed study is recommended for sites where any explosive gas/methane is detected. Some fill material may be contaminated by toxic/hazardous waste that renders it unacceptable for deposition in any but designated land fill sites; unless specifically stated the fill on this site has not been tested for contaminants that may be considered toxic or hazardous. This testing and a potential hazard study can be undertaken if requested. In most residential/commercial areas undergoing reconstruction, buried oil tanks are common and are generally not detected in a conventional geotechnical site investigation.
3. **Till:** The term till on the borehole logs indicates that the material originates from a geological process associated with glaciation. Because of this geological process the till must be considered heterogeneous in composition and as such may contain pockets and/or seams of material such as sand, gravel, silt or clay. Till often contains cobbles (60 to 200 mm) or boulders (over 200 mm). Contractors may therefore encounter cobbles and boulders during excavation, even if they are not indicated by the borings. It should be appreciated that normal sampling equipment cannot differentiate the size or type of any obstruction. Because of the horizontal and vertical variability of till, the sample description may be applicable to a very limited zone; caution is therefore essential when dealing with sensitive excavations or dewatering programs in till materials.

Log of Borehole 1

Project No. BRM-00603467-B0

Drawing No. 2

Project: Preliminary Geotechnical Investigation and Phase II ESA

Sheet No. 1 of 1

Location: 71 - 79 Main Street South, Georgetown, Ontario

Date Drilled: April 16 & 17, 2014

Drill Type: Hollow Stem Augers

Datum: Geodetic

Auger Sample 

SPT (N) Value 

Dynamic Cone Test 

Shelby Tube 

Field Vane Test 

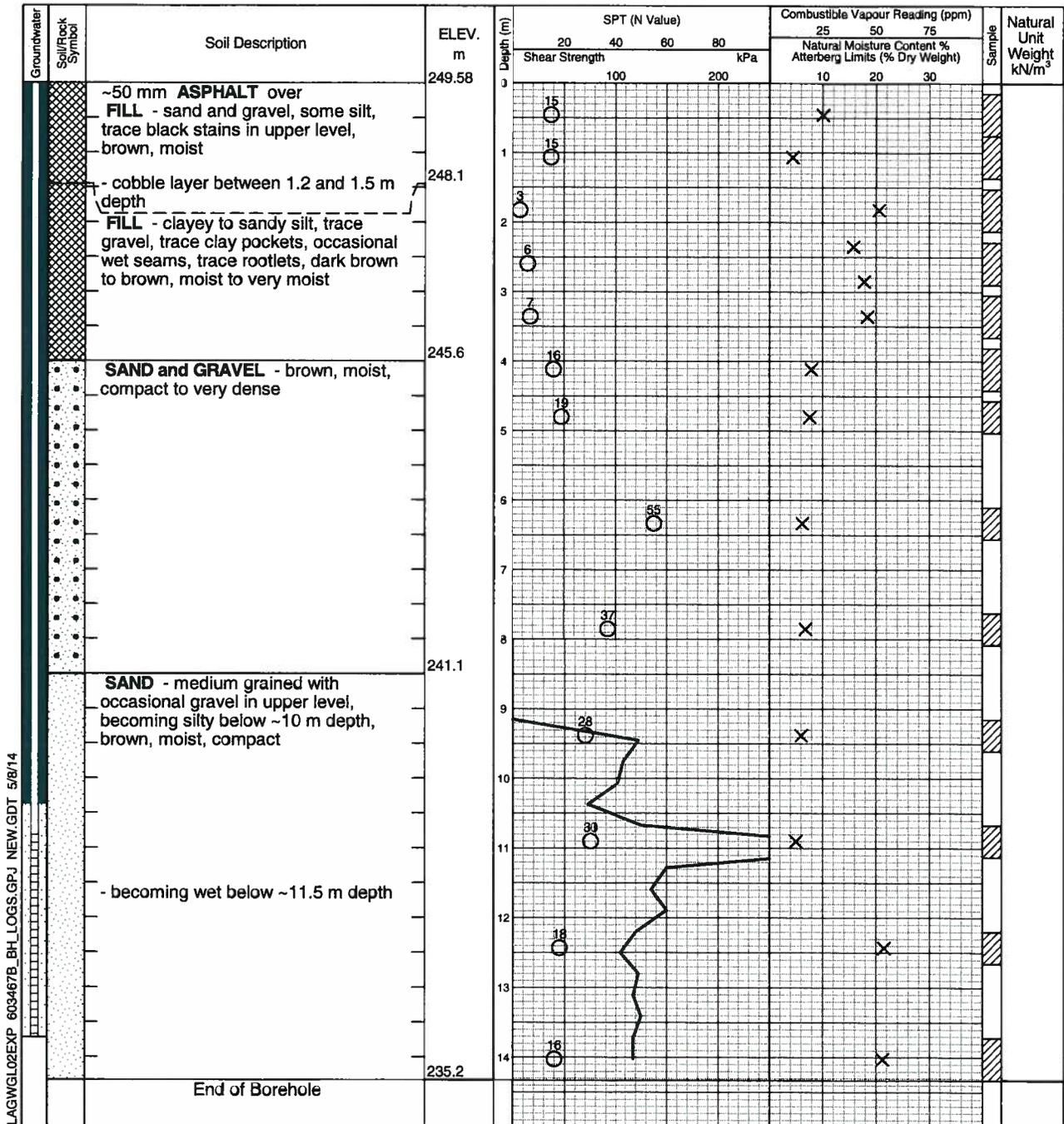
Combustible Vapour Reading 

Natural Moisture 

Plastic and Liquid Limit 

Undrained Triaxial at % Strain at Failure 

Penetrometer 



Notes:

- Borehole advanced to completion at ~14.3 m depth by conventional soil sampling methods using a specialist drilling subcontractor. For borehole definitions, see notes prior to logs.
- This drawing forms part of and must be read in conjunction with the subject report (Ref. No.: BRM-00603467-B0); borehole data requires interpretation assistance by exp professional staff before use by others.

New identity of Trow Associates Inc.

Brampton

Elapsed Time	Water Level (m)	Hole Open to (m)
On Completion	11.6	13.3
After 4 days	11.6	Well
After 11 days	11.6	Well
After 21 days	11.5	Well

Log of Borehole 2

Project No. BRM-00603467-B0

Drawing No. 3

Project: Preliminary Geotechnical Investigation and Phase II ESA

Sheet No. 1 of 1

Location: 71 - 79 Main Street South, Georgetown, Ontario

Date Drilled: April 16, 2014

Drill Type: Hollow Stem Augers

Datum: Geodetic

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

Combustible Vapour Reading

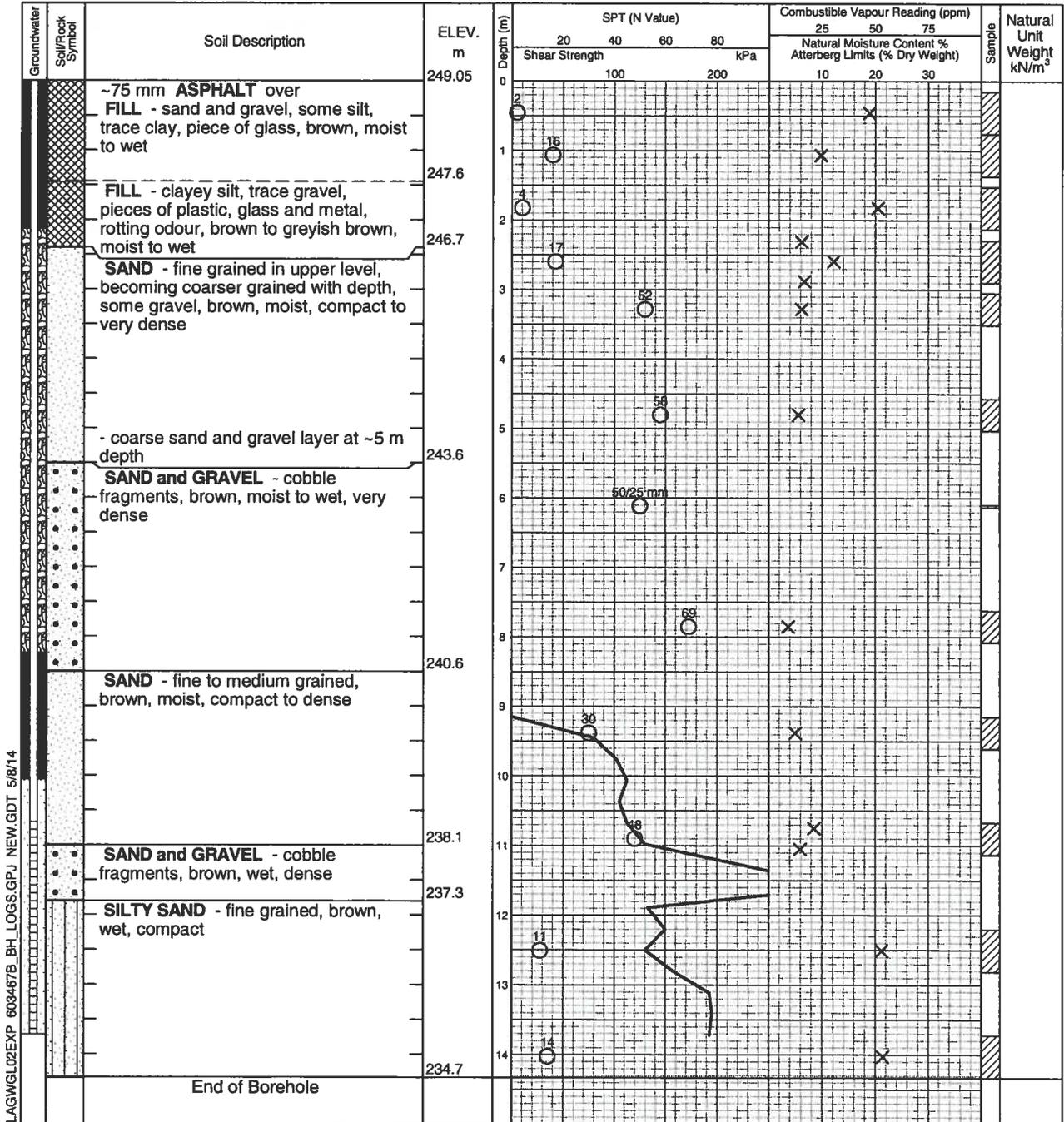
Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at

% Strain at Failure

Penetrometer



Notes:

- Borehole advanced to completion at ~14.3 m depth by conventional soil sampling methods using a specialist drilling subcontractor. For borehole definitions, see notes prior to logs.
- This drawing forms part of and must be read in conjunction with the subject report (Ref. No.: BRM-00603467-B0); borehole data requires interpretation assistance by exp professional staff before use by others.

Elapsed Time	Water Level (m)	Hole Open to (m)
On Completion	11.7	-
After 1 day	11.0	Piezo
After 5 days	10.9	Piezo
After 12 days	10.9	Piezo
After 22 days	10.8	Piezo

New identity of Trow Associates Inc.

Brampton

Log of Borehole 3

Project No. BRM-00603467-B0

Drawing No. 4

Project: Preliminary Geotechnical Investigation and Phase II ESA

Sheet No. 1 of 1

Location: 71 - 79 Main Street South, Georgetown, Ontario

Date Drilled: April 17, 2014

Drill Type: Hollow Stem Augers

Datum: Geodetic

Auger Sample

SPT (N) Value

Dynamic Cone Test

Shelby Tube

Field Vane Test

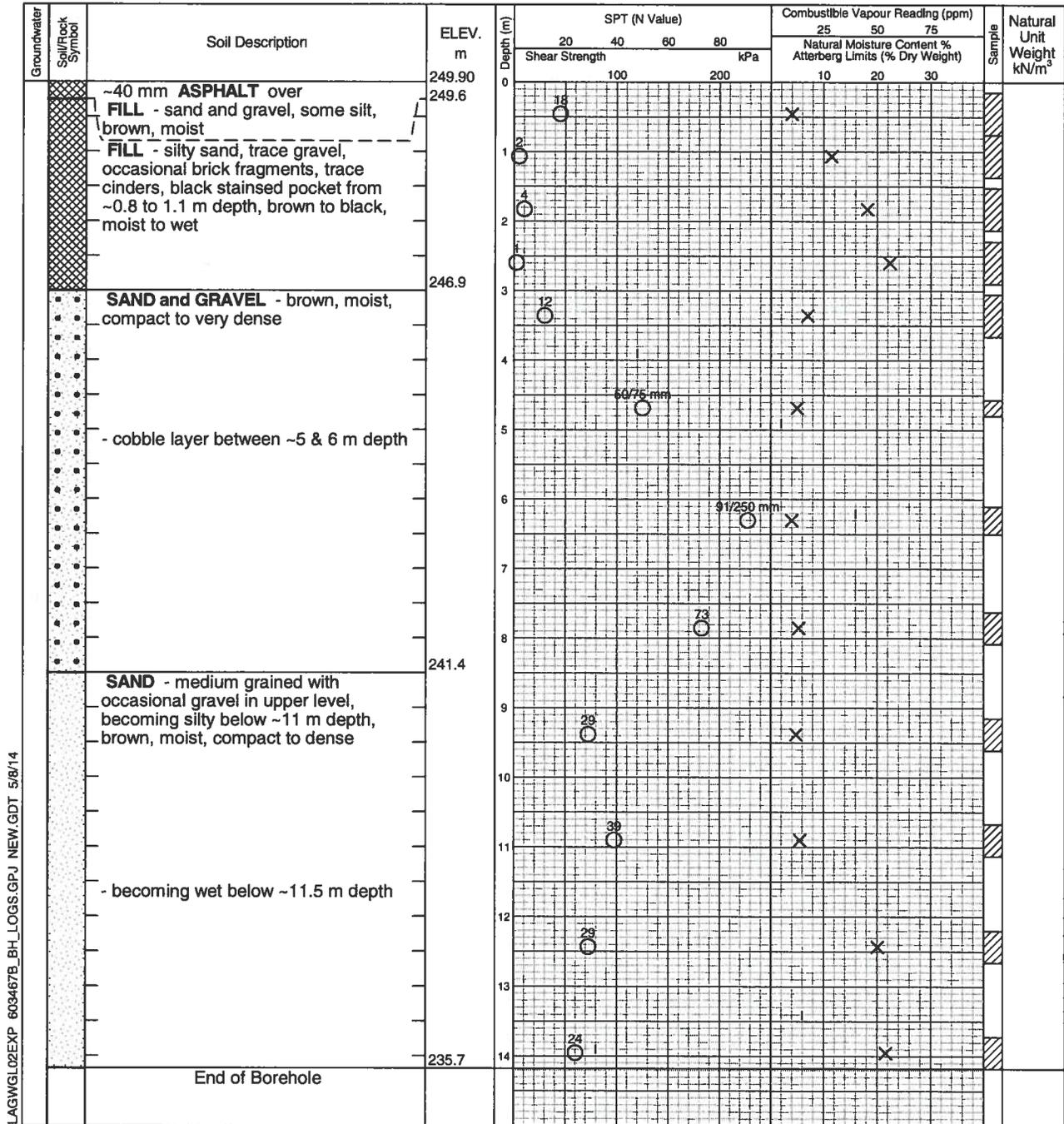
Combustible Vapour Reading

Natural Moisture

Plastic and Liquid Limit

Undrained Triaxial at % Strain at Failure

Penetrometer



Log of Borehole 4

Project No. BRM-00603467-B0

Drawing No. 5

Project: Preliminary Geotechnical Investigation and Phase II ESA

Sheet No. 1 of 1

Location: 71 - 79 Main Street South, Georgetown, Ontario

Date Drilled: April 17, 2014

Drill Type: Hollow Stem Augers

Datum: Geodetic

Auger Sample 

SPT (N) Value 

Dynamic Cone Test 

Shelby Tube 

Field Vane Test 

Combustible Vapour Reading 

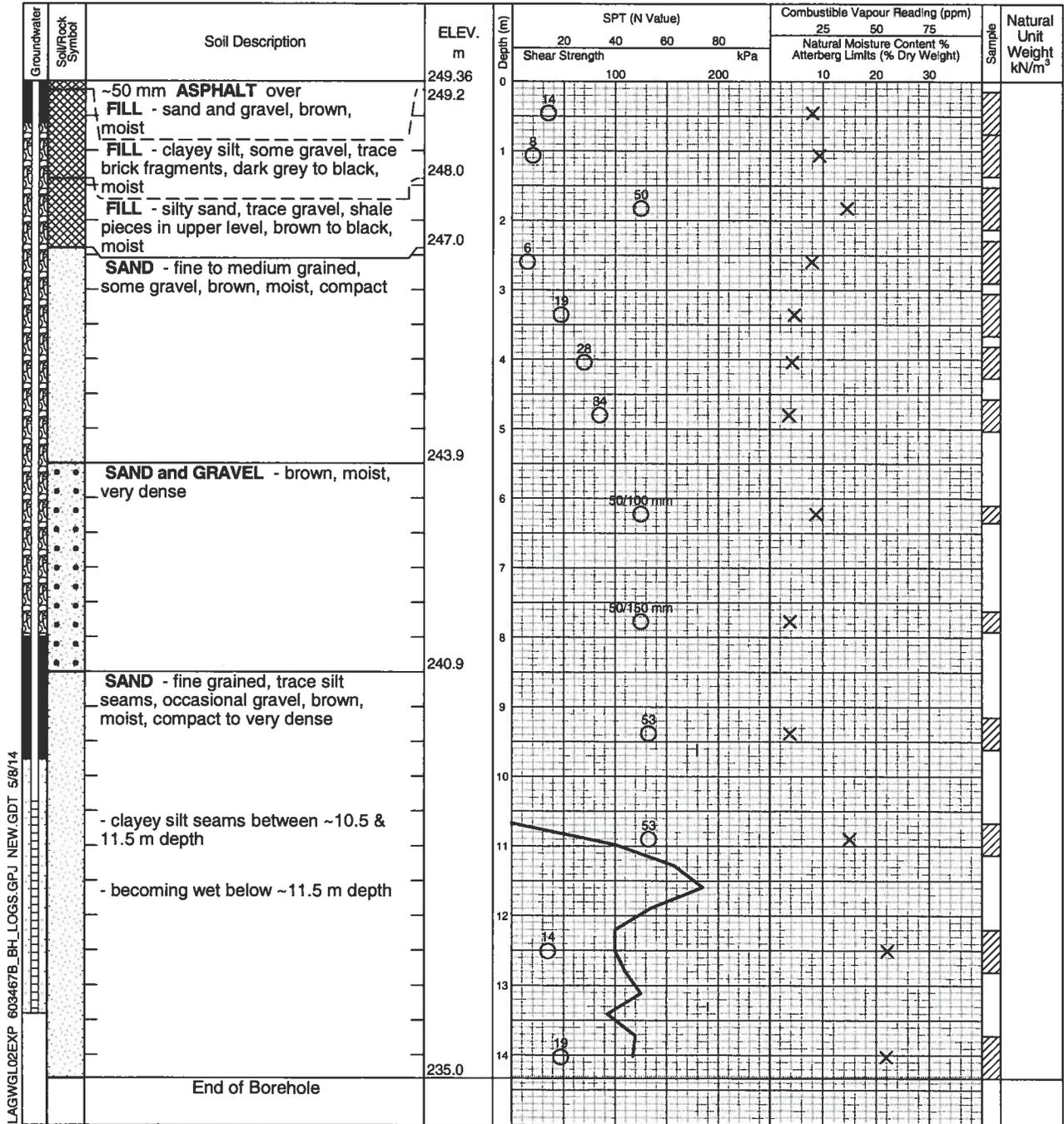
Natural Moisture 

Plastic and Liquid Limit 

Undrained Triaxial at 

% Strain at Failure 

Penetrometer 



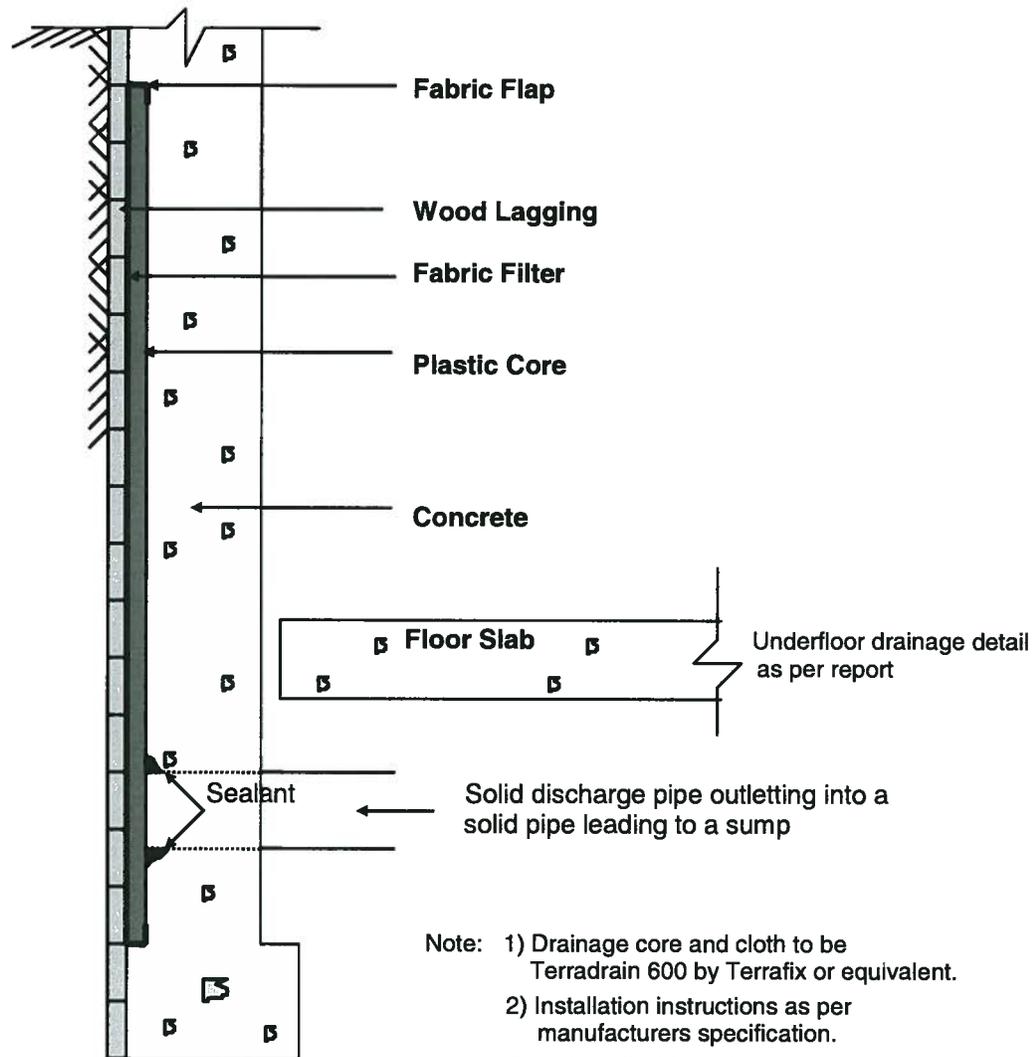
Notes:

- Borehole advanced to completion at ~14.3 m depth by conventional soil sampling methods using a specialist drilling subcontractor. For borehole definitions, see notes prior to logs.
- This drawing forms part of and must be read in conjunction with the subject report (Ref. No.: BRM-00603467-B0); borehole data requires interpretation assistance by exp professional staff before use by others.

New identity of Trow Associates Inc.

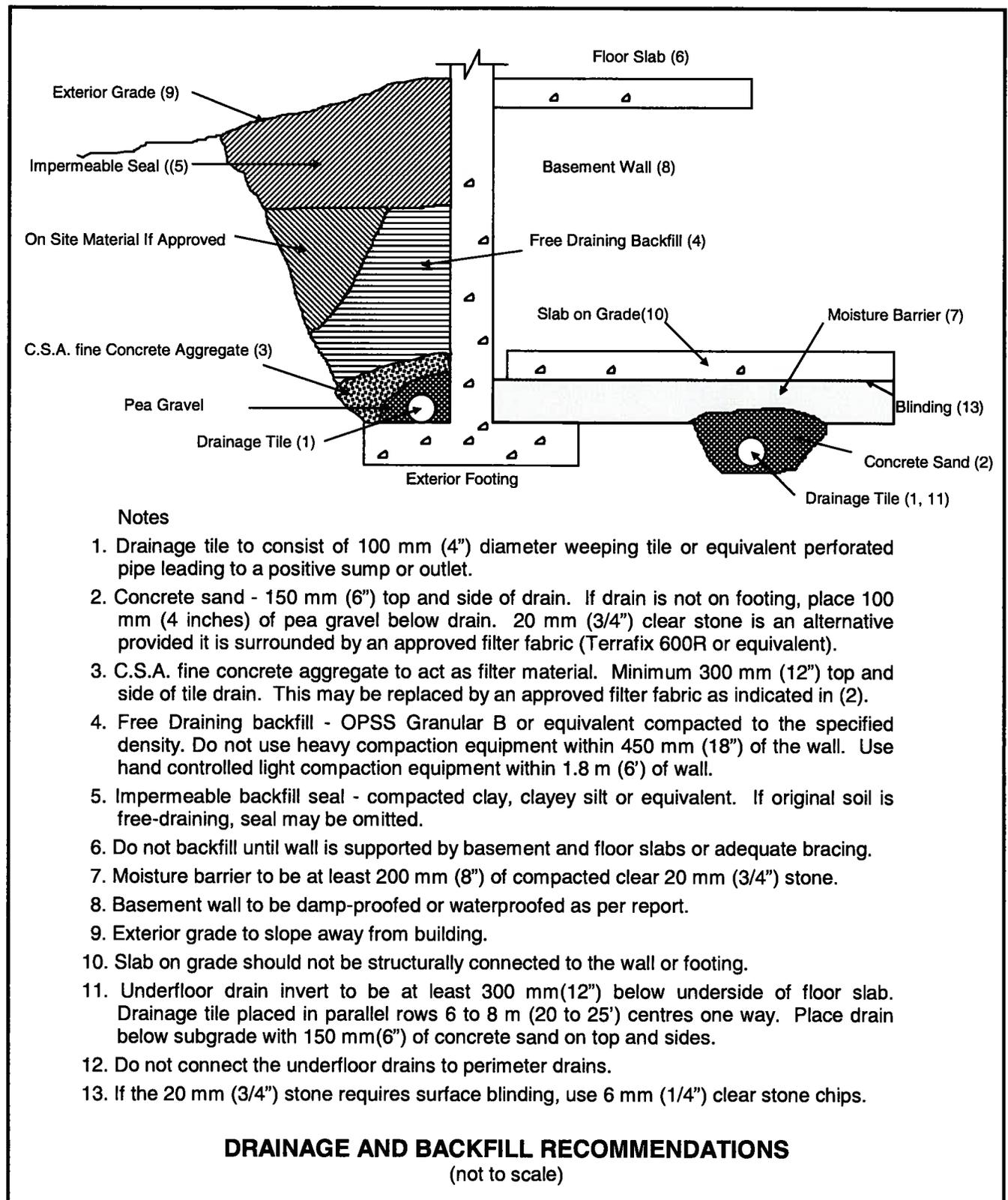
Brampton

Elapsed Time	Water Level (m)	Hole Open to (m)
On Completion	11.2	-
After 4 days	11.0	Well
After 11 days	10.9	Well
After 21 days	10.8	Well



- Note:
- 1) Drainage core and cloth to be Terradrain 600 by Terrafix or equivalent.
 - 2) Installation instructions as per manufacturers specification.
 - 3) To be full width unless otherwise recommended by the engineer.
 - 4) Final detail must be approved before system is considered acceptable.
 - 5) Teradrain 600 should be kept a minimum of 1.2 m below exterior finished grade.

**SUGGESTED EXTERIOR DRAINAGE AGAINST
SOLDIER PILE AND LAGGING SHORING SYSTEM**



Appendix A: Certificates of Analysis

Your Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Your C.O.C. #: 36808

Attention: Aamna Arora
 exp Services Inc
 1595 Clark Blvd
 Brampton, ON
 L6T 4V1

Report Date: 2014/05/08
Report #: R3023974
Version: 4R

CERTIFICATE OF ANALYSIS – REVISED REPORT

MAXXAM JOB #: B463089
Received: 2014/04/19, 10:45

Sample Matrix: Soil
 # Samples Received: 1

Analyses	Quantity	Date		Laboratory Method	Method Reference
		Extracted	Analyzed		
pH CaCl2 EXTRACT	1	2014/04/24	2014/04/24	CAM SOP-00413	SM 4500H+ B
Sulphate (20:1 Extract)	1	N/A	2014/05/01	CAM SOP-00464	EPA 375.4

Remarks:

Maxxam Analytics has performed all analytical testing herein in accordance with ISO 17025 and the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. All methodologies comply with this document and are validated for use in the laboratory. The methods and techniques employed in this analysis conform to the performance criteria (detection limits, accuracy and precision) as outlined in the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act. Reporting results to two significant figures at the RDL is to permit statistical evaluation and is not intended to be an indication of analytical precision.

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 the 'Alberta Environment Draft Addenda to the CWS-PHC, Appendix 6, Validation of Alternate Methods'. Documentation is available upon request. Maxxam has made the following improvements to the CWS-PHC reference benchmark method: (i) Headspace for F1; and, (ii) Mechanical extraction for F2-F4. Note: F4G cannot be added to the C6 to C50 hydrocarbons. The extraction date for samples field preserved with methanol for F1 and Volatile Organic Compounds is considered to be the date sampled.

Maxxam Analytics is accredited for all specific parameters as required by Ontario Regulation 153/04. Maxxam Analytics is limited in liability to the actual cost of analysis unless otherwise agreed in writing. There is no other warranty expressed or implied. Samples will be retained at Maxxam Analytics for three weeks from receipt of data or as per contract.

- * RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
- * Results relate only to the items tested.

Encryption Key

Krystal Seedial
 08 May 2014 16:21:09 -04:00

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

Sara Singh, B.Sc, Senior Project Manager
 Email: sarasingh@maxxam.ca
 Phone# (905) 817-5821

=====

Maxxam Job #: B463089
Report Date: 2014/05/08

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

-2-

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.

Total cover pages: 2

Page 2 of 7

Maxxam Job #: B463089
Report Date: 2014/05/08

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

RESULTS OF ANALYSES OF SOIL

Maxxam ID	VP2728		
Sampling Date	2014/04/16		
	BH1 (13'-14')	RDL	QC Batch
Inorganics			
Available (CaCl2) pH	pH	7.87	3582553
Soluble (20:1) Sulphate (SO4)	ug/g	130	20
			3589536

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Maxxam Job #: B463089
Report Date: 2014/05/08

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

Test Summary

Maxxam ID VP2728
Sample ID BH1 (13-14)
Matrix Soil

Collected 2014/04/16
Shipped
Received 2014/04/19

Test Description	Instrumentation	Batch	Extracted	Analyzed	Analyst
pH CaCl2 EXTRACT	AC/EC	3582553	2014/04/24	2014/04/24	Neil Dassanayake
Sulphate (20:1 Extract)		3589536	N/A	2014/05/01	Deonarine Ramnanne

Maxxam Job #: B463089
Report Date: 2014/05/08

exp Services Inc
Client Project #: BRM00603467-B0
Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
Sampler Initials: AA

Package 1 | 5.0°C

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

GENERAL COMMENTS

Maxxam Job #: B463089
 Report Date: 2014/05/08

exp Services Inc
 Client Project #: BRM00603467-B0
 Site Location: 71-79 KING ST SOUTH GEORGETOWN (HALTON HILLS)
 Sampler Initials: AA

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	Units	Value (%)	QC Limits
3589536	Soluble (20:1) Sulphate (SO4)	2014/05/01	115	70 - 130	106	70 - 130	<20	ug/g	NC	35

N/A = Not Applicable

RPD = Relative Percent Difference

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.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

Validation Signature Page

Maxxam Job #: B463089

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

Cristina Carriere

Cristina Carriere, Scientific Services

Ewa Pranjic



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

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