



June 5, 2014

AJ Lamba Realty Group Inc.
910 Eglinton Avenue East
L4W 1K1
Mississauga, Ontario

Attention: Mr. A.J. Lamba

**RE: Phase Two Environmental Site Assessment
900 - 920 Eglinton Avenue East, Mississauga, Ontario
Altech Reference No. 5140-14**

Dear Mr. Lamba:

Please find attached the report for the Phase Two Environmental Site Assessment conducted by Altech at the above location.

If you have any questions or concerns, please do not hesitate to contact the undersigned. Thank you.

Yours very truly,

ALTECH Environmental Consulting Ltd.

Andrew Mutrie, E.I.T.
Project Consultant
Site Investigation and Remediation Services

Phase Two Environmental Site Assessment

**900 – 920 Eglinton Avenue East
Mississauga, Ontario**

Prepared for

AJ Lamba Realty Group Inc.

Project: 5140-14



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June 6, 2014

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1.0 EXECUTIVE SUMMARY

ALTECH Environmental Consulting Ltd. (Altech) was retained to complete a Phase Two Environmental Site Assessment (ESA). Details are provided as follows:

Client:

- AJ Lamba Realty Group Inc.

Description of lands containing the Phase Two Property:

- The lands known by the municipal addresses of 900, 910 and 920 Eglinton Avenue East, in Mississauga, Ontario;
- The three municipal addresses are directly adjacent to each other and are situated on the south side of Eglinton Avenue East, between a Highway 403 Interchange and Tomken Road. The Phase Two Property is generally rectangular in shape and has an approximate area of 3530 m². A one-storey house-style building is the only building currently present at the Phase Two Property. This building is situated in the central portion of the subject site fronting onto the roadway. The building is surrounded by paved driveway and parking areas. The remainder of the Phase Two property is occupied by vacant land with natural vegetation present.

Dates of the onsite sampling for this Phase Two ESA: May 23 and May 29, 2014.

The purpose of the assessment is to investigate the Areas of Potential Environmental Concern (APECs) at the subject site identified in the Phase One ESA completed by *Toronto Inspection Ltd. (TIL)* in April 2014. The Phase Two Property investigated during this assessment is the same as the Phase One Property investigated by TIL. Please refer to the Phase One ESA report for a thorough summary of all Potentially Contaminating Activities (PCA), from the list of 59 activities proscribed as such by the MOE in Reg.153/04 as amended, that were identified as occurring or historically having occurred at the Phase Two Property and/or in the Phase Two Study Area (within 250 metres of the Phase Two Property).

Five (5) Areas of Potential Environmental Concern (APECs) were identified on the Phase Two Property, as per the *TIL* Phase One ESA:

- Foreign fill material of unknown quality may exist at the Phase Two Property. This APEC cannot be definitely confined to a particular area however is believed to be concentrated at the apparently artificial mounds present in the north portion of the Phase Two Property. Contaminants of Concern (COC) related to this APEC include Metals, Petroleum Hydrocarbons (PHC) and Volatile Organic Compounds (VOC);
- De-icing salts are applied seasonally to the paved areas of the subject site, and also to the paved roadway Eglinton Avenue. As such, the surficial fill underneath the paved areas of the site, and the surficial fill near to the roadway may contain elevated levels of salt-

related compounds. Contaminants of Concern (COC) related to this APEC include Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC).

- The Phase Two Property and surrounding area has historically been used for agricultural purposes. As such, the surficial fill in the undeveloped areas of the Phase Two Property may have residual contamination from these practices. COCs related to this APEC include Organochlorine Pesticides (OCP);
- The former presence of fuel oil storage tank(s) at the Phase Two Property leads to an APEC in the central area of the Phase Two Property. COCs related to this APEC include PHCs.
- The current and historical presence of an industrial park to the northwest of the Phase Two Property results in an APEC in the northwest portion of the Phase Two Property. COCs related to this APEC include PHCs, and VOCs. The industrial area is located at a distance greater than 70 metres northwest of the Phase Two Property, and the Phase Two Property is less than 40 metres wide (in the northwest-southeast plane.) As such, any migrating contamination has the potential to have affected the subsurface of the entire Phase Two Property.

Altech advanced a total of seven (7) boreholes and installed three (3) monitoring wells to investigate potential impacts to the Phase Two Property. Soil and groundwater samples were collected and analyzed for at least one of the following parameter groups: Petroleum Hydrocarbons (PHC), Volatile Organic Compounds (VOC), Organochlorine Pesticides (OCP), Sodium Absorption Ratio (SAR), Electrical Conductivity (EC) and Metals.

Laboratory analytical results were then compared to the Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (fine to medium textured soils) for Industrial/Commercial/Community land use (MOE Table 3 Standards 2011). These Standards are considered by the Qualified Person (QP) to be the applicable Standards for the Phase Two Property.

The following conclusions are provided for this Phase Two ESA at the Phase Two Property:

- 1) The APECs identified at the Phase Two Property, were adequately investigated in this Phase Two ESA;
- 2) No contaminants of concern are present in the subsurface soil or groundwater at the Phase Two Property.

2.0 INTRODUCTION

The purpose of the assessment is to provide an objective, independent, professional investigation and assessment of the soil and groundwater conditions underlying the site. This Phase Two Environmental Site Assessment has been commissioned by AJ Lamba Realty Group Inc. (the client) as recommended in a previously completed Phase One ESA.

2.1 Site Description

The 'Phase Two Property' consists of the same lands as the Phase One Property. The lands are described in more detail in the Phase One ESA.

The Phase Two Property consists of lots described by three municipal addresses: 900, 910 and 920 Eglinton Avenue East. These lots are directly adjacent to each other and are situated on the south side of Eglinton Avenue East, between a Highway 403 Interchange and Tomken Road. The Phase Two Property is generally rectangular in shape and has an approximate area of 3,530 m². A one-storey house-style building is the only building currently present at the Phase Two Property. This building is situated in the central portion of the subject site fronting onto the roadway. The building is surrounded by paved driveway and parking areas. The remainder of the Phase Two property is occupied by vacant land with natural vegetation present. The Phase Two Property is bound by Eglinton Avenue East to the northwest, by developed commercial properties to the northeast / southeast, and by vacant undeveloped land to the south.

The legal descriptions of the three (3) properties which comprise the Phase Two Property are:

- 900 Eglinton Avenue East: Part 17 of Plan 43R-5515, and Part 2 of Expansion Plan 463716 (PIN 13311-0004 (LT));
- 910 Eglinton Avenue East: Part 18 of Plan 43R-5515 (PIN 13311-0005 (LT));
- 920 Eglinton Avenue East: Part 19 of Plan 43R-5515 and Part 2 of Expansion Plan 463690 (PIN 13311-0006 (LT)).

Please refer to Section 9.0, Figures and Tables, for illustrations of the boundaries of the Phase Two Property. Please refer to Appendix A – 4 for a proper survey of the Phase Two Property.

2.2 Property Ownership

The Phase Two Property at 900 - 920 Eglinton Avenue East, as a whole, is currently owned personally by Mr. and Mrs. Amarjot Lamba. It is the owner's intention to incorporate the land holdings once re-financing is approved. Mr. Lamba currently utilizes the sole building on-site as an office for a real estate business. The contact information is as follows:

- AJ Lamba Realty Group Inc., 910 Eglinton Avenue East, Mississauga, Ontario, L4W 1K1. Phone: 905-502-9944. Contact Personnel: Mr. AJ Lamba. Email: aj@ajlamba.com

2.3 Current and Proposed Future Uses

Zoning of the Phase Two Property and surrounding area was determined through publicly available online maps from the City of Mississauga website. The current zoning of the property at 900 - 920 Eglinton Avenue East is "R4: Detached Dwellings, Minimum 15 meter Lot Frontages". The land adjacent to the site to the south is also zoned as R4. The current zoning of the properties adjacent to the site to the southeast and to the northeast is "M1: Industrial Uses – Limited Outside Storage".

The proposed future use of the Phase Two property is commercial office and/or retail space. The size of the Phase Two property will not change. The proposed future use of the Phase Two Property is considered to be less sensitive than the current use of the Phase Two Property. Therefore, section 168.3.1 of the MOE regulation 511/09 would not prohibit the new use of the property without a Record of Site Condition (RSC) filed.

2.4 Applicable Site Condition Standard

The Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (fine to medium textured soils) for industrial/commercial/community land use (MOE Table 3 Standards April 15, 2011 as per Reg. 153/04 and amendments) are deemed applicable for comparison of analytical results of soil and groundwater samples. The applicable Standard was determined as follows:

The Ministry of the Environment (MOE) document *Soil, Ground Water [sic] and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (April 15, 2011) outlines three site restoration approaches:

- Full Depth Background criteria;
- Full Depth Generic criteria;
- Stratified depth criteria

Comparison of the analytical results to the Full Depth Generic Approach was selected for this site. The QP did not determine any reason or benefit to using the Background or Stratified approach. The site is not considered to be within or adjacent to an area of natural significance.

One soil sample submitted for laboratory analysis (BH1 – 5-7') was analyzed for pH level. The pH of the soil was determined to be 7.89, which is within the acceptable range. No further evidence from soil observations was attained to indicate that the pH of any of the soil underlying the site would be outside the acceptable range to allow the application of the Standards.

Two types of Generic approach are recognized in the *Standards*:

- Full depth criteria;
- Shallow Soils criteria; and,
- Criteria for use within 30 m of a Water Body.

Comparison of the analytical results to the full depth criteria was deemed by the Qualified Person to be appropriate for this site to meet the objectives of this assessment. It was determined

that greater than 5 metres of overburden soil exists underlying the site and thus Shallow Soils criteria do not apply. There are no water bodies within 30 metres of the Phase Two Property.

Two types of soil texture are recognized in the *Standards*:

- Coarse textured soils; and,
- Medium and fine textured soils.

Comparison of the analytical results to the fine to medium textured soil criteria was selected for this site based on visual observation of soils in the field, and confirmation by grain size analysis (discussed further below).

Two types of groundwater condition are recognized in the *Standards*:

- Potable groundwater; and,
- Non-potable groundwater.

Comparison of the analytical results to the non-potable groundwater Standard was selected for this site, since groundwater is not used by the municipality as a source for the municipal drinking water system for the City of Mississauga. The source water for the City drinking water system is surface water (Lake Ontario). Further discussion of this determination is included in the Phase One ESA.

Under non-potable groundwater conditions, two types of site use are recognized in the *Standards*:

- Residential/parkland/institutional land use; and,
- Industrial/commercial/community land use.

Comparison of the analytical results to the industrial/commercial/community land use was selected for this site, based on the current and proposed future land use. Although the Phase Two Property is zoned as residential, it is currently being used for commercial purposes. Also, the intended future use is commercial.

3.0 BACKGROUND INFORMATION

3.1 Physical Setting

The Phase Two Property and the Phase Two Study Area referred to in this report are the same as the Phase One Property and Phase One Study Area referred to in the previously completed Phase One ESA. The Phase Two Study Area include properties within 250 metres of the Phase Two Property.

Topographically, the Phase Two Property slopes steeply down from the road surface to the remainder of the property. The lowest area of the property is the southern corner portion, which is at an elevation approximately four (4) metres lower than the roadway. The highest area of the property is immediately adjacent to the roadway. In addition to the steep slope descending from the roadway, the predominant slope of the Phase Two Property is down to the south. The south/southwest portion of the property is marsh-like. Standing water accumulates here and vegetation such as cattails are present.

The hydrology of the study area consists only of surface runoff that is wholly dictated by the topography of the site. Surface runoff travels down gradient across the paved and grassed areas of the site. Since the surface gradient at the site descends down to the south / southwest, surface water drains to this area of the site.

There are no water bodies or areas of natural significance located on or adjacent to the Phase Two Property, or within the Phase Two Study Area. The rationale for this consideration of the Phase Two Property is as follows:

- 1) It is not reserved or set apart as a provincial park or conservation reserve under the Provincial Parks and Conservation Reserves Act;
- 2) It is not identified by the Ministry of Natural Resources as an area of natural and scientific interest, or wetland, or as a habitat for threatened or endangered species;
- 3) It is not designated by the municipality as environmentally sensitive, of environmental concern, or as ecologically significant. The area is fully developed, and is zoned for development;
- 4) It is not designated as an escarpment natural area or an escarpment protection area by the Niagara Escarpment Plan;
- 5) It is not designated as a natural core area or natural linkage area by the Oak Ridges Moraine Conservation Plan;
- 6) It is not set apart as a wilderness area under the Wilderness Areas Act.

3.2 Past Investigations

The following report was provided to Altech by the client:

- *Phase One ESA*, 900 – 920 Eglinton Avenue East, Mississauga, Ontario. Completed by *Toronto Inspection Ltd.* (TIL). TIL reference: 3844-14-E-AJL-A. Dated: April 14, 2014.

The Phase One ESA identified numerous Potentially Contaminating Activities (PCAs) that historically have occurred at the Phase Two Property, and numerous PCAs that are currently occurring and have historically occurred within the Phase Two Study Area. As per the identified PCAs, multiple Areas of Potential Environmental Concern (APECs) were identified at the Phase Two Property. The concluding statement made by *TIL* is as follows: *"It is TIL's opinion that a Phase Two ESA will be required to confirm the quality of subsoil (sic) and groundwater at the site."*

The *TIL* Phase One ESA references a previous Phase One ESA completed for a part of the Phase Two property by *AMEC* in 2011. The *TIL* report utilized the conclusion from the *AMEC* report that no significant water bodies are present in the Phase One Study Area.

Altech reviewed the Phase One ESA in detail and finds no reason to discredit the content or findings contained therein. The Phase One ESA was conducted as per the requirements of O.Reg. 153/04 as amended by O.Reg. 511/09. The Phase One ESA was conservative in its identification of PCAs.

Altech interprets the Phase One ESA to have identified five (5) Areas of Potential Environmental Concern (APECs) at the Phase Two Property, as per the *TIL* Phase One ESA:

- Foreign fill material of unknown quality may exist at the Phase Two Property. This APEC cannot be definitely confined to a particular area however is believed to be concentrated at the apparently artificial mounds present in the north portion of the Phase Two Property. Contaminants of Concern (COC) related to this APEC include Metals, Petroleum Hydrocarbons (PHC) and Volatile Organic Compounds (VOC);
- De-icing salts are applied seasonally to the paved areas of the subject site, and also to the paved roadway Eglinton Avenue. As such, the surficial fill underneath the paved areas of the site, and the surficial fill near to the roadway may contain elevated levels of salt-related compounds. Contaminants of Concern (COC) related to this APEC include Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC).
- The Phase Two Property and surrounding area has historically been used for agricultural purposes. As such, the surficial fill in the undeveloped areas of the Phase Two Property may have residual contamination from these practices. COCs related to this APEC include Organochlorine Pesticides (OCP);
- The former presence of fuel oil storage tank(s) at the Phase Two Property leads to an APEC in the central area of the Phase Two Property. COCs related to this APEC include PHCs.
- The current and historical presence of an industrial park to the northwest of the Phase Two Property results in an APEC in the northwest portion of the Phase Two Property. COCs related to this APEC include PHCs, and VOCs. The industrial area is located at a distance greater than 70 metres northwest of the Phase Two Property, and the Phase Two Property is less than 40 metres wide (in the northwest-southeast plane.) As such, any migrating contamination has the potential to have affected the subsurface of the entire Phase Two Property.

4.0 SCOPE OF THE INVESTIGATION

4.1 Overview of Site Investigation

Altech reviewed the previously completed Phase One ESA and designed this Phase Two ESA investigation to adequately examine all APECs and COCs identified therein.

The sampling plan included advancement of seven (7) boreholes, three (3) of which were to be completed with monitoring wells. Monitoring Wells were to be installed in any boreholes that showed significant signs of impact; if no signs of impact were observed, then the monitoring wells were to be installed in suitable locations to determine groundwater flow direction.

The location of boreholes advanced, and the rationale for these locations, is as follows:

- BH1 was advanced in the west portion of the Phase Two Property, on the paved driveway surface in front of the garage bay door. This borehole was situated to investigate impacts of road-salt application to surficial soils;
- BH2, complete with MWA, was advanced in the central portion of the Phase Two Property, in the paved area near to the rear of the building. This borehole was situated to investigate impacts of road-salt application to surficial soils and impacts from former fuel oil storage in the area;
- BH3 was advanced in the north portion of the Phase Two Property, on the mound of fill that appears to have been artificially created. The borehole was located 11 metres southeast and 11 metres southwest of the north corner of the property. This borehole was situated to investigate impacts of road-salt application to surficial soils, impacts of former pesticide use to surficial soils, and any potential impacts that may be present in the fill (as it is of unknown quality);
- BH4, complete with MWB, was advanced in the northeast portion of the Phase Two Property, beside the mound of fill that appears to have been artificially created in this area. The borehole was located 12 metres southwest and 4 metres northwest of the east corner of the property. This borehole was situated to investigate impacts of former pesticide use to surficial soils, and any potential impacts that may be present in the fill (as it is of unknown quality);
- BH5 was advanced in the southwest portion of the Phase Two Property, approximately 13 metres southwest of the south corner of the subject site building. This borehole is in the area where a former house building was present. This borehole was situated to investigate impacts of former pesticide use, and any potential impacts that may be present in the fill (as it is of unknown quality);
- BH6, complete with MWC, was advanced in the southwest portion of the Phase Two Property. The borehole was located approximately 30 metres southwest and 6 metres northwest of the south corner of the building. This borehole was situated to investigate impacts of former pesticide use to surficial soils, and off-site impacts from industrial properties to the northwest;

- BH7 was advanced in the south portion of the Phase Two Property, approximately 9 metres northeast and 3 metres northwest of the south corner of the property. This borehole was situated to investigate impacts of former pesticide use to surficial soils.

The industrial area to the northwest of the Phase Two Property is located at a distance greater than 70 metres northwest. The Phase Two Property is less than 40 metres wide (in the northwest-southeast plane.) As such, any migrating contamination has the potential to have affected the subsurface of the entire Phase Two Property. Although BH6/MWC is best suited to evaluate any migratory contamination from the industrial area, due to its proximity, all boreholes advanced were evaluated for potential off-site impacts.

The assessment included the advancement of boreholes and installation of monitoring wells, collection and field screening of soil samples, elevation measurements of geologic and hydro geologic units, and analysis of soil and groundwater samples for several chemical parameter groups.

4.2 Media Investigated

The media investigated in this assessment included soil and groundwater, but not sediment or bedrock. The following rationale is provided for each media:

Soil

The potentially contaminating activities (PCA) that could have potentially impacted the subsurface of the Phase Two Property include the storage of fuel oil, the use of pesticides, the use of road salt, the importation of fill of unknown quality, and multiple PCAs that have occurred and are occurring at industrial properties within the Phase Two Study Area.

Pesticides and road salt are applied at the ground surface. If large quantities of these compounds are applied, surficial soils may contain high amounts of pesticides or road-salt related minerals. Surficial soils are considered to be immediately underneath the surface layer. Surface layers encountered during this Phase Two ESA were: paved asphalt, grassed areas, and razed vacant land (generally covered in soil, debris, or disturbed vegetation). Samples collected to investigate the subsurface penetration of pesticides and road salt were generally from 0.5 – 3' below the ground surface (bgs).

The storage of fuel oil is an activity that involves liquid contaminants which if released into the subsurface would contact the soil nearest to the point of release first, that is, soil in the unsaturated overburden closest to the surface. The liquid contaminants would then migrate downward through the subsurface, impacting soil at a greater depth and possibly the groundwater table. Soil at all depths in all boreholes was inspected for visual and olfactory evidence of hydrocarbon contamination.

Similarly, the risk of migratory contamination from industrial activities within the Phase Two Study Area arises from the use of liquid contaminants. If released into the subsurface, these liquid contaminants would contact the soil nearest to the point of release first, that is, soil in the

unsaturated overburden closest to the surface at these neighbouring properties. The liquid contaminants would then migrate downward through the subsurface, impacting soil at a greater depth and possibly the groundwater table. Through groundwater migration, contaminants released to the subsurface as a result of the noted PCAs, could have impacted subsurface soil underlying the Phase Two Property. It was therefore deemed necessary to investigate subsurface soil for potential impacts

Fill of unknown quality exists at the subject site. Evidence of impacts from this fill was examined in all boreholes advanced. Observations were made regarding any foreign debris found in any of the boreholes advanced.

Soil at all depths in all boreholes was visually and olfactory inspected for obvious signs of contamination. Soil at all intervals was field screened using an *RKI Eagle* PID meter, used to detect combustible vapors arising from hydrocarbon contamination, or odourless VOC vapours that would otherwise go undetected.

Groundwater

Groundwater contamination may be or may have been present at properties within the Phase Two Study Area. The presence of such contamination could have impacted the subject site if dissolved phase contaminants migrated with groundwater flow towards the Phase Two Property. It was therefore deemed necessary to investigate groundwater for potential impacts.

Sediment

Since there are no water bodies present on the property, an investigation of potential contamination of sediment was deemed not applicable by the QP.

Bedrock

No bedrock was encountered during borehole advancement at the subject site. Greater than 4.5 metres of overburden soil (i.e. silt formation) was determined to exist under the site. As such, an investigation of potential contamination of bedrock was deemed not applicable by the QP.

4.3 Phase One Conceptual Site Model

In the Phase One ESA report, TIL prepared three (3) drawings for the Conceptual Site Model: Figure 1 – Site Plan, Figure 2 – PCA Locations and Figure 3 – APEC Locations. Information summarized in these figures includes:

- 1) The boundaries of the Phase One Study Area and Phase One Property are clearly illustrated;
- 2) The Phase One Property is not within, or adjacent to, an area of natural significance or water body as defined in O.Reg. 153/04, as amended;
- 3) There are no water wells on the Phase One Property;

- 4) The road names, property uses, and locations of Potentially Contaminating Activities (PCAs) within the Phase One Study Area are illustrated.

The Phase Two Property and Phase Two Study Area have been defined as the same as those of the Phase One ESA, and as such the above figures remain relevant to this Phase Two ESA. Please refer to the Phase One ESA for a detailed overview of the Phase One Conceptual Site Model. Note that the Phase One ESA does not include a written summary of the conceptual site model, but instead includes a table indicating what section within the report each key piece of information of the conceptual site model can be found.

4.4 Deviations from Sampling and Analysis Plan

There were no deviations from the sampling and analysis plan for subsurface soil and groundwater for the Phase Two ESA. Please refer to Appendix A-1 for the Sampling and Analysis Plan.

4.5 Impediments

There were no notable 'denial of access' issues in the completion of the onsite component of the Phase Two ESA work.

5.0 INVESTIGATION METHOD

5.1 General

The investigation was performed in accordance with prevailing practices used in the environmental assessment industry, and generally accepted standards for environmental investigations.

As mentioned, the purpose and intent of this Phase Two ESA was to investigate the potential for subsurface contamination associated with the environmental concerns identified by the Phase One ESA.

5.2 Drilling and Excavating

Prior to any subsurface work, utilities were located on both public and private property. Ontario One Call was contacted for locates on public property. The following local utilities were contacted prior to the start of drilling:

1. Local Water and Sewer utilities.
2. Local Telephone Company.
3. Local Natural Gas Company.
4. Local Cable Company.
5. Provincial and Municipal Hydro.

A private locator was contracted to scan each work area and provide physical plant locates within the boundaries of the private property. All utility locate reports are provided in Appendix A-5.

A total of seven (7) boreholes were advanced to a maximum depth of 16 feet (4.9 metres) below surface grade. All boreholes were advanced into the overburden at the site utilizing a rubber-track mounted Geoprobe 7822DT drilling rig operated by Strata Drilling Group Inc. (Strata). The Geoprobe rig employed direct push technology whereby a continuous soil sample was collected, over four-foot intervals, by pushing with hydraulic hammer a 2-inch diameter plastic liner through the soil over the entire depth of each borehole. Notes were made regarding soil classification, evidence of impacts through visual and olfactory observations, and combustible vapour measurements. At least one (1) soil sample was collected for each 4-foot soil interval examined. The collection of soil samples depended on recovery from the soil column, and the stratigraphy of soils encountered.

A total of three (3) monitoring wells were installed into three (3) of the boreholes advanced to a maximum depth of 16 feet (4.9 metres) below surface grade.

Cross-contamination was minimized by using separate plastic liners for each soil interval inspected. Field personnel wore clean plastic gloves to handle all samples. Gloves were changed for each soil interval inspected, at a minimum. Soil samples were organized on a plastic

table provided by Strata, as such soil samples never made contact with the ground surface. The plastic table was continually tidied through the day.

5.3 Soil Sampling

Soil samples were retrieved from various depth intervals in each borehole. Soil from each depth interval was placed into a clean, sealed, 18 x 20 centimetre heavy polyethylene bags so that approximately one quarter of the bag was full, with some headspace in the bag. Any lumps of soil within the bag were gently massaged and broken up by hand. The sample was then monitored for soil vapours accumulated in the headspace. Samples were selected for laboratory analysis on the basis of the results of field screening (discussed in section 5.4 below) for combustible vapours, and any visual and olfactory evidence of impact.

The soil samples selected for laboratory analysis were collected and field preserved in accordance with the instructions provided by the laboratory, ALS Laboratory Group of Mississauga, Ontario. Soil selected for PHC and VOC analysis was placed into a new, clean, 120 or 250 ml glass jar with a Teflon lined lid, and also transferred directly from the soil core using a new, clean, Terracore sampler into two (2) new, clean, 40 ml clear glass vials with Teflon lined lids. Each vial contained 10 ml of methanol, as prepared by the laboratory. Soil selected for Metals or OCP analysis was placed into a new, clean 120 or 250 ml glass jar with a Teflon lid.

The analytical glassware for the selected samples was field preserved in an ice-containing cooler and submitted to the laboratory subcontractor, ALS Environmental Inc.

The samples were labelled with the following information:

- A site reference number (5140-14);
- A borehole (BH#) reference number, for placement of the sample at the site; and,
- A depth reference number from which the sample was retrieved.

Site Geology

The generalized site geology encountered at the site was consistent in each borehole and is best described as follows:

- BH1 was surfaced with asphalt underlain by dark grey gravel to a depth of approximately 2' below ground surface (bgs). A minimal amount of red brick debris was encountered around 1.5' bgs. From 2' bgs to the end of the borehole at 8' bgs, dry brown silt was encountered. The silt contained small pebble rocks interspersed throughout and a larger rock piece was stuck in the soil column around 5' bgs. There was no apparent contamination in the borehole based on visual and olfactory observations.
- BH2, complete with MWA, was surfaced with asphalt underlain by dark grey gravel to a depth of approximately 1' below ground surface (bgs). From 1 – 3' bgs, dry brown silt was encountered. The silt contained small pebble rocks interspersed. From 3 – 4.5' bgs

dark grey silty clay was encountered. From 4.5 – 8' bgs, dry brown silt was encountered. From 8-9' bgs, a layer of wet grey-brown clay with small gravel-like rocks mixed in was encountered. From 9' bgs to the end of the borehole at 12' bgs, dry grey silt was encountered. There was no apparent contamination in the borehole based on visual and olfactory observations.

- BH3 was surfaced with disturbed brown silty soil. The entire soil column, to the end of the borehole at a depth of 8' bgs can best be described as brown silt. Some tree roots and leafy organic debris was encountered between 1 and 3' bgs. Some grey sandstone rock debris and a trace amount of red brick debris was encountered between 5 and 7' bgs. There was no apparent contamination in the borehole based on visual and olfactory observations.
- BH4, complete with MWB, was surfaced with disturbed brown silty soil. Dry brown silt continued to be encountered to a depth of 5' bgs. From 5 – 8' bgs grey-brown silt with some wood debris was encountered. From 8' bgs to the end of the borehole at 12' bgs, wet grey-brown silty clay was encountered. Some small rocks were present in this material. There was no apparent contamination in the borehole based on visual and olfactory observations.
- BH5 was surfaced with unmaintained grass. Below this surface layer to a depth of 8' bgs brown silt was encountered. A piece of red brick debris was present in the soil column around 1' bgs. A coppery tint was possessed by the soil at around 5' bgs. From 8' bgs to the end of the borehole at 12' bgs, grey silt was encountered. There was no apparent contamination in the borehole based on visual and olfactory observations.
- BH6, complete with MWC, was surfaced with unmaintained grass. Dry brown silt was next encountered to a depth of 5' bgs. From 5 – 6.5' bgs, brown sandy silt was encountered. From 6.5 – 10' bgs, soft dark brown-grey sandy silt was encountered. Within this layer of sandy silt, relatively high VOC concentrations were measured using the *RKI Eagle*: 160 ppm (7-8') and 110 ppm (9-10'). Next a 0.5' layer of light brown granular sand was encountered. Below this dry brown-grey silt was present to a depth of 12'. From 12 – 14' bgs wet, grey sandy-silt was encountered. From 14' bgs to the end of the borehole at 16' bgs dry grey silt was present. There was no apparent contamination in the borehole based on visual and olfactory observations.
- BH7 was surfaced with was surfaced with disturbed brown silty soil. Dry brown silt continued to be encountered to a depth of 2' bgs, at which point the soil column transitioned to grey-brown silt to a depth of 5' bgs. Between 5 and 6' bgs dark grey sand and a piece of rock was encountered. From 6 – 8' bgs dry grey silt was encountered. From 8 – 10' bgs wet grey-brown sandy silt was encountered. From 10' bgs to the end of the borehole at 12' bgs, dry grey silt was encountered. There was no apparent contamination in the borehole based on visual and olfactory observations.

A detailed description of the geology underlying the subject site is provided in Section 6.1. Field logs of the stratigraphy in each borehole are provided in Appendix A-2.

5.4 Field Screening Measurements

All soil samples were field screened shortly after sampling. For each sample, the polyethylene bag was selected and any lumps of soil within the bag were gently massaged and broken up by hand without opening the bag. The sample was then allowed to come to the ambient air

temperature before monitoring soil vapours accumulated in the headspace. Field testing of soil vapours was made by inserting the probe of a RKI Eagle 2 organic vapour meter (calibrated to 400 parts per million and 40% Lower Explosive Limit Hexane) into the headspace within the bag, and recording the peak value registered by the meter during the first 15 seconds of measurement. The instrument is capable of detecting the gaseous concentration of any volatile, flammable chemical in air over two ranges: 0 to 500 parts per million (ppm) and 0 to 100% Lower Explosive Limit (LEL) or 0 to 11,000 ppm. The instrument is calibrated monthly by Altech personnel, using known concentrations of Hexane Gas.

Notes were also recorded of any visual evidence of chemical impact, soil type (grain size and texture), geological features (e.g. fracturing, colouration) and approximate moisture content. Olfactory evidence of any chemical impacts or other sample characteristics was also recorded.

Soil samples that tested relatively high for combustible vapours and/or possessed volatile odours were submitted to the laboratory for analysis of PHCs and VOCs. Any foreign debris observed in soil columns also affected the selection of soil samples for laboratory analysis.

No deviations to the normal field screening measurements or procedures took place during this Phase Two ESA.

5.5 Groundwater Monitoring Well Installation

Monitoring wells for groundwater sampling were installed into three (3) of the boreholes advanced at the site. The monitoring wells were intended to intercept the shallow groundwater table. Strata completed the installation of the wells using a Geoprobe 7822DT. The monitoring wells were constructed as follows:

- 1) Monitoring well MWA was installed within BH2 to a depth of 10 feet (3.0 metres) below surface grade. The well was constructed using new, clean (so as to avoid cross-contamination) 2-inch diameter schedule 40 polyvinyl chloride (PVC) piping with 5 feet (1.5 metres) of 40-micrometre slotted well screening at the bottom of the well. Clean graded sand was placed around the well screen up to approximately 1 foot (30 centimetres) above the top of the screen. A minimum 36-inch (0.9 metres) bentonite seal was then placed above the sand pack and the remaining annulus was filled with sand. A flush-mounted metal protective casing was installed at surface with concrete seal to protect the well pipe while providing an access point for sampling. An expandable gripper cap (J-plug) was installed to cap the monitoring well.
- 2) Monitoring well MWB was installed within BH4 to a depth of 13 feet (4.0 metres) below surface grade. The well was constructed using 2-inch diameter schedule 40 polyvinyl chloride (PVC) piping with 5 feet (1.5 metres) of 40-micrometre slotted well screening at the bottom of the well. Clean graded sand was placed around the well screen up to approximately 1 foot (30 centimetres) above the top of the screen. A minimum 36-inch (0.9 metres) bentonite seal was then placed above the sand pack and the remaining annulus was filled with sand. The well pipe was extended approximately 1 metre above the ground surface to make the well easily accessible

- for sampling. An expandable gripper cap (J-plug) was installed to cap the monitoring well.
- 3) Monitoring well MWC was installed within BH6 to a depth of 16 feet (4.9 metres) below surface grade. The well was constructed using 2-inch diameter schedule 40 polyvinyl chloride (PVC) piping with 10 feet (3.0 metres) of 40-micrometre slotted well screening at the bottom of the well. Clean graded sand was placed around the well screen up to approximately 1 foot (30 centimetres) above the top of the screen. A minimum 36-inch (0.9 metres) bentonite seal was then placed above the sand pack and the remaining annulus was filled with sand. The well pipe was extended approximately 1 metre above the ground surface to make the well easily accessible for sampling. An expandable gripper cap (J-plug) was installed to cap the monitoring well.

Monitoring well completion details are also included with the borehole logs, in Appendix A-2 and in Table 1.

5.6 Groundwater Field Measurements of Water Quality Parameters

During the Phase Two ESA, no measurements of groundwater quality parameters were made in the field, as this was deemed unnecessary for the purposes of the investigation.

5.7 Groundwater Sampling

Groundwater sampling was completed from the monitoring wells at the site. After installation, the monitoring wells were allowed to reach static water equilibrium. The depth to water in each well was measured with a water-level meter. The volume of water in each well was then calculated and each well was purged using a new, clean, bottom loading disposable bailer. The development of each well involved purging of more than three (3) well volumes of water as outlined in the Ontario Ministry of the Environment's document *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario*.

After development, each well was allowed to recharge to static equilibrium and then a groundwater sample was collected from the well. The sample was then transferred from the bailer to clean analytical vessels, provided by an independent analytical laboratory, ALS Environmental Inc. of Mississauga, Ontario. The samples were immediately field preserved in accordance with the instructions provided by the laboratory.

The groundwater samples were labelled with the following information:

- A site reference number (5140); and,
- A monitoring well location reference for placement of the sample at the site.

5.8 Sediment and Bedrock Sampling

No sediment sampling was completed as part of this Limited Phase Two Environmental Site Assessment. There are no surface water bodies, permanent or seasonal, on the Phase Two Property.

Bedrock was not encountered during the Phase Two ESA, and as such was not investigated.

5.9 Analytical Testing

All soil and groundwater samples collected for analysis during the Phase Two ESA were submitted to and analyzed by ALS Environmental Inc. of Mississauga, Ontario.

5.10 Residue Management Procedures

Residues from the drilling work were limited to excess sampled soil from the borehole and monitoring well advancement, and purged groundwater from well development.

Soil residues from the Geoprobe work were collected in steel drum containers for off-site disposal.

5.11 Elevation Surveying

An elevation survey was completed at the subject site using traditional transit technique. A four-screw transit was set up, leveled, and sighted on a graduated rod set at a benchmark of known elevation. The height of the sight-line on the transit was then calculated by adding the measurement to the elevation of the bench mark. Then the transit was used to sight on the rod at each monitoring well and the elevation of each object was measured. The elevation of each object was calculated by subtracting the sighted measurement at each monitoring well from the height of the instrument.

Altech completed a survey of the elevations of all monitoring wells and other significant points of reference using this technique on May 23, 2014.

Topographic contours of the Phase Two Property and immediately surrounding area were reviewed from a City of Mississauga online maps application. The contours indicate that the site the surface elevation of Eglinton Avenue where it fronts onto the Phase Two Property is approximately 148.5 metres above mean sea level (masl). The contours indicate that the lowest point on the property, at the south corner of the site is at an elevation of approximately 145 masl. The contours indicate that the north portion of the site (i.e. 920 Eglinton Avenue East) is at an elevation of 146 masl.

As a benchmark elevation for surveying purposes, Altech utilized the south corner of the site being at an elevation of 145 masl. BH7, advanced within 10 metres of the south corner, was assumed to be at 145 masl.

A detailed description of the land elevations is provided in Section 6.1.

5.12 Quality Assurance and Quality Control Measures

The sampling containers used at the time of the onsite sampling for the Phase Two ESA for each target parameter of analysis are described as follows:

Soil

PHC: F2, F3, F4:	120 / 250 millilitre (mL) amber glass jars, no preservative
Metals:	120 mL amber glass jar, no preservative
OC Pesticides:	120 mL amber glass jar, no preservative
VOC, F1, BTEX:	40 millilitre clear glass vial, methanol preservative
SAR, EC:	120 / 250 millilitre (mL) amber glass jars, no preservative

Groundwater

PHC: F2, F3, F4:	2 x 500 millilitre amber glass bottle, Sodium Bisulfate preservative
Metals (dissolved):	125 millilitre clear plastic bottle, no field filtering or preservative.
VOC, PHC: F1, BTEX:	3 x 40 millilitre amber glass vial, Sodium Bisulfate preservative
OC Pesticides:	2 x 500 millilitre amber glass bottle, no preservative

Each jar, vial and bottle was labeled. All samples submitted for analysis were documented on completed Chain of Custody forms provided by the laboratory.

All soil samples were collected either by hand using new disposable latex or nitrile gloves or using a new disposable terra-core sampler. Groundwater samples were collected using new, disposable bailers. No other sampling equipment was used to collect or handle the samples.

The quality assurance and quality control measures related to the analyses included laboratory duplicate analyses, laboratory blank analyses, and laboratory matrix spike analyses for selected samples and parameters. Field duplicates of soil and groundwater were collected and submitted for analysis.

6.0 REVIEW AND EVALUATION

6.1 Geology

The majority of the surface of the Phase Two Property is covered by grass or disturbed soil/vegetation. This surface covering is present at the north and south lots (i.e. 900 and 920 Eglinton Avenue East) within the Phase Two Property. The central lot at the Phase Two Property (i.e. 910 Eglinton Avenue East) is occupied by the house building and the paved access and parking areas. During the period that this Phase Two project took place, the client was expanding the parking area at the rear of the site. Gravel backfill was being imported to extend the level parking surface. There is no reason to believe any contamination exists within this construction-grade backfill material.

The elevation of the surface of the Phase Two Property ranges between approximately 145 metres (south corner, BH7) to 148.54 metres (driveway in front of garage, BH1) above mean sea level (amsl). The most prominent topographic feature at the Phase Two Property is a steep descent from the roadside down to the southeast portion of the site. This descent is steeper in the south portion, and more gradual in the north portion of the Phase Two Property. The Phase Two property also has a general slope trend descending gently to the south from the north. The lot addressed as 920 Eglinton Avenue East (i.e. the north portion of the site) is generally at a higher elevation than 900 Eglinton Avenue East (i.e. the south portion of the site).

The general geology underlying the subject site consists of a predominantly silt layer, at least 4 metres thick, with some clay and sand interspersed, to a depth of at least 141.2 m amsl.

Cross-sectional diagrams of the subject site have been prepared by Altech to illustrate the geology underlying the site. The figures are included in Section 9.0.

6.2 Groundwater Characterization, Elevation and Flow Direction

Altech determined that the shallow groundwater table at the subject site is located within the overburden soil layer.

Groundwater elevations within the installed monitoring wells were measured to be as follows:

MWA:	0.699 m below surface grade, thus at 144.54 m amsl.
MWB:	No groundwater collected in this monitoring well, which was screened from 143.415 to a maximum depth of 141.815 m amsl. Thus the shallow groundwater table in this area of the site is at a depth greater than 141.815 m amsl.
MWC:	1.60 m below grade, thus at 145.00 masl.

The groundwater elevations are summarized in Table 2.

Limited data to infer groundwater flow direction was gained from the Phase Two ESA. Based on the groundwater elevation measurements taken, an easterly groundwater flow direction is inferred. This inference is consistent with the presence of a tributary of Etobicoke Creek being present to the east of the subject site.

6.3 Fine-Medium Soil Texture

Fine to medium soil texture is being used in determining the applicable site condition Standards. This is based on sieve testing on a soil sample collected from BH1 during the borehole advancement. The soil sample 5140-BH1-5-7' was a grab sample of soil from the silt unit between 2 and 8 feet below surface at that location. It was sieved with a 75 micron sieve and found to have 70% of particles in the samples smaller than 75 micron; qualifying it as fine to medium soil texture. This soil is typical of soil found underlying the site. The soil underlying the site was found to be very consistent in type and texture, and as such the QP determined that one (1) Grain Size Analysis (GSA) was sufficient to confirm the soil texture categorization.

6.4 Soil Field Screening

The field screening methodology used during the Phase Two ESA on site work is described in Section 5.4 above. The details of all VOC measurements of soil samples are included with the borehole logs in Appendix A-2. The following table summarizes the results of the field screening on soil samples.

Borehole number	Highest VOC measurement(s) and corresponding depth below ground surface	Notes on visual and olfactory evidence of impact	Sample(s) submitted for lab analysis
BH1	0 ppm at 1-3', 5-7'	No visual or olfactory evidence of impact	BH1 – 1-3' (SAR, EC) BH1 – 5-7' (VOC, PHC)
BH2	50 ppm at 8-9'	No visual or olfactory evidence of impact	BH2 – 1-3' (SAR, EC) BH2 – 8-9' (VOC, PHC)
BH3	0 ppm at 0-4', 4-8'	No visual or olfactory evidence of impact	BH3 – 1-2' (SAR, EC) BH3 – 2-3' (OCP) BH3 – 5-6' (Metals)
BH4	5 ppm at 5-6'	No visual or olfactory evidence of impact	BH4 – 1-2' (SAR, EC, OCP) BH4 – 5-6' (VOC, PHC)
BH5	10 ppm at 3-4'	No olfactory evidence of impact. Red brick debris encountered around 1.5' bgs.	BH5 – 0.5-1' (OCP) BH5 – 1-2' (Metals)
BH6	160 ppm at 7-8'	No visual or olfactory evidence of impact	BH6 – 7-8' (VOC, PHC)
BH7	45 ppm at 8-10'	No visual or olfactory evidence of impact	BH7 – 0.5-2' (OCP) BH7 – 8-10' (PHC, VOC0)

6.5 Soil Quality

None of the fourteen (14) soil samples submitted from the seven (7) boreholes advanced were in exceedance of the 2011 MOE Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (fine to medium textured soils) for industrial/commercial/community property use (2011 MOE Table 3 Standards) for any of the parameters analyzed for: Petroleum Hydrocarbons (PHC), Volatile Organic Compounds (VOC), Sodium Absorption Ratio (SAR), Electrical Conductivity (EC), Organochlorine Pesticides (OCP) and Metals.

The following table summarizes the soil samples submitted for analysis, parameters analyzed and the laboratory results:

Sample ID	Depth below surface grade (feet)	Soil unit	Parameters analyzed	Assessment of exceedances
BH1 – 1-3'	1-3'	Silt	SAR, EC	No exceedances of 2011 MOE Table 3 Standards
BH1 – 5-7'	5-7'	Silt	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards
BH2 – 1-3'	1-3'	Silt	SAR, EC	No exceedances of 2011 MOE Table 3 Standards
BH2 – 8-9'	8-9'	Clay	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards
BH3 – 1-2'	1-2'	Silt	SAR, EC	No exceedances of 2011 MOE Table 3 Standards
BH3 – 2-3'	2-3'	Silt	OCP	No exceedances of 2011 MOE Table 3 Standards
BH3 – 5-6'	5-6'	Silt	Metals	No exceedances of 2011 MOE Table 3 Standards
BH4 – 1-2'	1-2'	Silt	SAR, EC, OCP	No exceedances of 2011 MOE Table 3 Standards
BH4 – 5-6'	5-6'	Silt	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards
BH5 – 0.5-1'	0.5-1'	Silt	OCP	No exceedances of 2011 MOE Table 3 Standards
BH5 – 1-2'	1-2'	Silt	Metals	No exceedances of 2011 MOE Table 3 Standards
BH6 – 7-8'	7-8'	Sandy Silt	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards
BH7 – 0.5-2'	0.5-2'	Silt	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards
BH7 – 8-10'	8-10'	Sandy Silt	VOC, PHC	No exceedances of 2011 MOE Table 3 Standards

The detailed analytical results for soil are tabulated in Tables 3 - 7 in Section 9.0. For a visual representation of borehole locations, please refer to Figure 2: Site Sketch.

Contaminants of Concern

Based on a comparison of the analytical results to the applicable standards (2011 MOE Table 3 Standards), the contaminants of concern in soil are determined to be:

- No contaminants of concern.

There was no evidence noted, during the Phase Two ESA, of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) in any of the soil encountered.

6.6 Groundwater Quality

Groundwater samples were collected from two (2) of the three (3) monitoring wells and submitted for laboratory analysis. No groundwater sample was collected from MWB because the well did not yield groundwater. Analytical results were compared to the 2011 MOE Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (fine to medium textured soils) for residential/parkland/institutional land use (2011 MOE Table 3 Standards). No exceedances were found.

The following table summarizes the groundwater quality:

Monitoring Well ID	Depth of screen	Aquifer intercepted by screen	Parameters analyzed	Assessment of exceedances
MWA	5 - 10 ft, 1.5 - 3.0m	Shallow groundwater aquifer in the overburden soil layer.	PHC, VOC, Metals	No exceedances of 2011 MOE Table 3 Standards
MWB	8 - 13 ft, 2.4 - 4.0m	No groundwater recovered.	Not sampled.	Not applicable.
MWC	6 - 16 ft, 1.8 - 4.9m	Shallow groundwater aquifer in the overburden soil layer.	PHC, VOC, OCP	No exceedances of 2011 MOE Table 3 Standards

The detailed analytical results for groundwater are tabulated in Tables 8 - 11 in Section 9.0.

Contaminants of Concern

Based on a comparison of the analytical results to the applicable standards (2011 MOE Table 3 Standards), the contaminants of concern in groundwater are determined to be:

- No contaminants of concern.

There was no evidence noted, during the Phase Two ESA, of any light or dense non-aqueous phase liquids (LNAPL or DNAPL) in any of the groundwater encountered.

6.7 Sediment Quality

Sediment quality is not applicable to this Limited Phase Two Environmental Site Assessment.

6.8 Quality Assurance and Quality Control

All samples submitted for analysis were documented on Chain of Custody records. All laboratory analytical results were reported to Altech on finalized, authorized Certificates of Analysis by the laboratory. All of the samples submitted for analysis for the purposes of assessing contaminants of concern on the Phase Two Property were handled in accordance with standard protocol. All samples were analyzed within the holding time of 7 calendar days.

The laboratory reported that the following quality assurance/quality control testing was completed on the Phase Two ESA samples for each parameter group: matrix spike, spiked blank, and method blank. A review of all blank analyses performed indicates that all of the results were below detection limits. The laboratory reported that all of the QA/QC results passed their quality control evaluation. Please refer to the laboratory certificates of analysis included in Appendix A-3 for details.

Altech collected field duplicates of soil and groundwater. The following table summarizes the duplicate quality assurance testing program.

Media	Parameter Group Analyzed for	Sample ID duplicated	Sample ID given to duplicate sample
Soil	PHC	BH7 – 8-10'	BH8 – 4-5'
Soil	VOC	BH7 – 8-10'	BH8 – 4-5'
Groundwater	PHC	MWA	MWD
Groundwater	Metals	MWA	MWD
Groundwater	VOC	MWA	MWD
Groundwater	OCP	MWA	MWD

No statistically meaningful inconsistencies were encountered in the analytical results of the field duplicates. No exceedances of the applicable standards were found in the field duplicates. The results associated with the field duplicate samples are included in Tables 3-11, as organized by sample media and parameter group.

6.9 Phase Two Conceptual Site Model

As explained above, five (5) Areas of Potential Environmental Concern (APEC) were identified on the Phase Two Property as a result of Potentially Contaminating Activities taking place historically at the subject site and taking place historically and currently at properties within the Phase Two Study Area, as per the *TIL* Phase One ESA:

- Foreign fill material of unknown quality may exist at the Phase Two Property. This APEC cannot be definitely confined to a particular area however is believed to be concentrated at the apparently artificial mounds present in the north portion of the Phase Two Property. Contaminants of Concern (COC) related to this APEC include Metals, Petroleum Hydrocarbons (PHC) and Volatile Organic Compounds (VOC);
- De-icing salts are applied seasonally to the paved areas of the subject site, and also to the paved roadway Eglinton Avenue. As such, the surficial fill underneath the paved areas of the site, and the surficial fill near to the roadway may contain elevated levels of salt-related compounds. Contaminants of Concern (COC) related to this APEC include Sodium Absorption Ratio (SAR) and Electrical Conductivity (EC).
- The Phase Two Property and surrounding area has historically been used for agricultural purposes. As such, the surficial fill in the undeveloped areas of the Phase Two Property

may have residual contamination from these practices. COCs related to this APEC include Organochlorine Pesticides (OCP);

- The former presence of fuel oil storage tank(s) at the Phase Two Property leads to an APEC in the central area of the Phase Two Property. COCs related to this APEC include PHCs.
- The current and historical presence of an industrial park to the northwest of the Phase Two Property results in an APEC in the northwest portion of the Phase Two Property. COCs related to this APEC include PHCs, and VOCs. The industrial area is located at a distance greater than 70 metres northwest of the Phase Two Property, and the Phase Two Property is less than 40 metres wide (in the northwest-southeast plane.) As such, any migrating contamination has the potential to have affected the subsurface of the entire Phase Two Property.

This Phase Two ESA has revealed that the Phase Two Property is underlain by dry overburden generally described as silt to a depth of at least 16 feet (4.9 m) below the ground surface. The groundwater table was encountered within the overburden soil, at a depth range of approximately 0.5 – 2 metres below the ground surface. Limited information was attained regarding the groundwater level and flow direction. Based on the limited information, the groundwater flow direction was inferred to be easterly. Cross-sections of the site are provided as Figures 3 and 4 in Section 9.0.

The investigation and sampling plan conducted adequately investigated the APECs identified in the Phase One ESA. All soil and groundwater observed and analyzed during this Phase Two ESA appeared to be free of impacts and laboratory analytical results met applicable 2011 MOE Table 3 Standards site standards. Based on all information available, it is the opinion of Altech that the subject site is free of subsurface contamination resulting from PCAs at the Phase Two Property and within the Phase Two Study Area.

7.0 CONCLUSIONS

Based on all information, field observations, laboratory analyses, and a comparison of the analytical results compared to the applicable 2011 MOE Table 3 Standards, Altech provides the following conclusion statements:

- 1) The potentially contaminating activities identified on properties within the Phase Two Study Area, and the resultant areas of potential environmental concern, were adequately investigated in this Phase Two ESA;
- 2) No contaminants of concern are present in the subsurface soil or groundwater of the Phase Two Property;
- 3) Altech recommends that the monitoring wells installed as part of this assessment are decommissioned as soon as possible, as per O.Reg. 903/04.

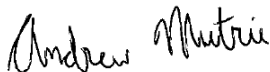
7.1 Signatures

Records and report review, project management, analytical results assessment and evaluation, and report editing was completed by:



Chad R. Stewart, P.Eng., QP-ESA
Manager - Site Investigation and Remediation Services

On site field work and sampling, field screening and observations, drawing, surveying and mapping, analytical results tabulation, records and report review, project management, analytical results assessment, and report writing was completed by:



Andrew Mutrie, E.I.T.
Project Consultant - Site Investigation and Remediation Services

On site field work and sampling, field screening and observations and drawing, surveying and mapping was completed by:



Naveed Rehman, G.I.T.
Project Consultant - Site Investigation and Remediation Services

7.2 Limitations

ALTECH Environmental Consulting Ltd. (Altech) has completed a Limited Phase Two Environmental Site Assessment (ESA) for the subject site and has made the opinions, findings, conclusions and recommendations presented herein. This report has been prepared generally consistent with the Ontario Regulation 153/04, as amended in 2011, and the generally accepted industry standard of practice for a report of this type. No other warranty, expressed or implied, is made.

An environmental site assessment or investigation has inherent limitations in characterizing the conditions of a site based on the information obtained. The test data, chemical analyses, and conclusions given herein are the results of limited sampling completed at the site under the specific conditions encountered during the work program. It is impossible to interpolate between sample locations with absolute certainty, and this assessment does not warrant or guarantee that all areas within, or adjacent to, the subject site are free from exceedances of any regulated Standard, Guideline, Objective or limit in any environmental media. This report does not delineate the exact extent, size or magnitude of any such exceedances and this report on its own is not intended to be used to determine the cost of remediation of any such exceedances. The sampling locations and chemical parameters of analysis have been chosen based on Altech's professional judgement and opinion of environmental concerns, potential contamination sources, types and transport in the environment. The laboratory analytical results presented herein are limited to those laboratory analyses requested.

All information described in this report was obtained from sources deemed to be reliable, however, no representation or warranty is made as to the accuracy thereof. The content of this report represents our unbiased and professional analysis, opinions, conclusions, and recommendations based on all information available as of the date of this report. The information presented is only accurate at the time of collection and Altech reserves the right to alter or revise the findings, opinions, conclusions and recommendations, based on any changes in site conditions or new information, anecdotal or otherwise, obtained by Altech after the date of this report.

ALTECH Environmental Consulting Ltd., its officers, and its employees have no present or contemplated interest in the property. Our employment and compensation for preparing this report are not contingent upon our observations and conclusions.

This report was prepared for, and is owned by, the Client exclusively as named in this report. No statements made in this report can be interpreted as legal advice. Altech accepts no duty of care to, or responsibility for damages suffered by, any third party, whatsoever, and any use a third party makes of this report, or any reliance to, or decisions based on it, are the responsibility of such third parties.

Altech Standard Terms of Agreement Rev. 07/2012 and limitations thereof apply.

8.0 REFERENCES

The following is a list of all documents referred to in this report:

- 1) *Soil, Groundwater and Sediment Standard for Use Under Part XV.1 of the Environmental Protection Act*, MOE, July 27, 2009.
- 2) *Guide for Completing Phase Two Environmental Site Assessment under Regulation 153/04*, MOE, June, 2011.
- 3) *Ontario Regulation 153/04*, MOE, filed June 1, 2004.

9.0 FIGURES AND TABLES

The following Tables are attached to this report:

Table 1: Summary of Well Completion Data

Table 2: Groundwater Elevation Levels

Tables 3-7: Soil Analytical Results

Tables 8-11: Groundwater Analytical Results

The following Figures are attached to this report, immediately following the above tables:

Figure 1: Site Sketch

Figure 2: Groundwater Elevations and Contours

Figure 3: Cross-Section A-A'

Figure 3: Cross-Section B-B'

TABLE 1: Summary of Well Completion Data

Reference: Phase Two ESA
Client: AJ Lamba Realty Group Inc.
Site: 900 - 920 Eglinton Avenue East, Mississauga, On

Well Identification	Well Surface Elevation (m amsl)	Depth To Well Seal fbgs (mbgs)	Depth To Sand Pack fbgs (mbgs)	Depth To Screen fbgs (mbgs)	Total Well Depth fbgs (mbgs)
MWA	145.240	0.50 (0.15)	4 (1.2)	5 (1.5)	10 (3.0)
MWB	145.815	0.50 (0.15)	7 (2.1)	8 (2.4)	13 (4.0)
MWC	146.600	0.50 (0.15)	5 (1.5)	6 (1.8)	16 (4.9)



TABLE 2: Groundwater Elevation Levels

Reference: Phase Two ESA
Client: AJ Lamba Realty Group Inc.
Site: 900 - 920 Eglinton Avenue East, Mississauga

Well	Well Surface Elevation (m amsl)	Static Groundwater Depth (mbgs)	Date Groundwater Measured	Static Groundwater Elevation (m amsl)
MWA	145.240	0.699	23-May-14	144.54
MWB	145.815	ND	23-May-14 29-May-14	< 141.82
MWC	146.600	1.60	23-May-14	145.00



TABLE 3: Summary of Soil Analytical Results for Minerality Parameters

Reference: Phase Two ESA
Client: AJ Lamba Realty Group Inc.
Site: 900 - 920 Eglinton Avenue East, Mississauga
Date Sampled: May 23, 2014
Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Industrial/Commercial Property Use, Fine to Medium Textured Soils

	pH	Sodium Absorption Ratio	Electrical Conductivity	Calcium	Magnesium	Sodium
	pH units		mS/cm	µg/g	µg/g	µg/g
BH1 - 5-7'	7.89	<i>np</i>	<i>np</i>	<i>np</i>	<i>np</i>	<i>np</i>
BH1 - 1-3'	<i>np</i>	5.27	0.542	17.3	1.91	86.6
BH2 - 1-3'	<i>np</i>	5.68	0.493	18.9	1.50	95.4
BH3 - 1-2'	<i>np</i>	0.29	0.244	38.7	1.40	6.71
BH4 - 1-2'	<i>np</i>	0.24	0.222	32.5	2.95	5.44
Method Detection Limit	<i>na</i>	<i>na</i>	0.0040	0.10	0.10	0.10
MOE Table 3 April 15, 2011	<i>na</i>	12	1.4	<i>nc</i>	<i>nc</i>	<i>nc</i>

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

nd = results below detection limit.

na = not applicable

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.



TABLE 4: Summary of Soil Analytical Results for Metals

Reference: Phase Two ESA
Client: AJ Lamba Realty Group Inc
Site: 900 - 920 Eglinton Avenue East, Mississauga
Date Sampled: May 23, 2014
Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Industrial/Commercial Property Use, Fine to Medium Textured Soils

Metal	MDL µg/g	BH3- 5-6'	BH5 - 1-2'	MOE Table 3 April 15, 2011
Antimony (Sb)	1.0	nd	nd	40 (50)
Arsenic (As)	1.0	4.6	5.7	18
Barium (Ba)	1.0	61.2	76.3	670
Beryllium (Be)	0.50	0.59	0.66	8 (10)
Boron (B)	5.0	8.6	9.5	120
Cadmium (Cd)	0.50	nd	nd	1.9
Chromium (Cr)	1.0	20.5	23.0	160
Cobalt (Co)	1.0	9.5	10.0	80 (100)
Copper (Cu)	1.0	23.1	24.7	230 (300)
Lead (Pb)	1.0	21.0	19.5	120
Molybdenum (Mo)	1.0	nd	nd	40
Nickel (Ni)	1.0	21.0	22.4	270 (340)
Selenium (Se)	1.0	nd	nd	5.5
Silver (Ag)	0.20	nd	nd	40 (50)
Thallium (Th)	0.50	nd	nd	3.3
Uranium (U)	1.0	nd	nd	33
Vanadium (V)	1.0	29.8	31.3	86
Zinc (Zn)	5.0	82.5	74.9	340

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils. Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 5:

Summary of Soil Analytical Results for Volatile Organic Compounds (VOCs)

Reference:

Client:

Site:

Date Sampled:

Utilized Criteria:

Phase Two ESA

AJ Lamba Realty Group Inc.

900 - 920 Eglinton Avenue East, Mississauga

May 23, 2014

MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Industrial/Commercial Property Use, Fine to Medium Textured Soils

VOC Compound	MDL µg/g	BH1 - 5-7'	BH2 - 8-9'	BH4 - 5-6'	BH6 - 7-8'	BH7 - 8-10'	BH8 - 4-5' (Field Duplicate of BH7 - 8-10')	MOE Table 3 April 15, 2011
Acetone	0.50	nd	nd	nd	nd	nd	nd	16 (28)
Bromodichloromethane	0.050	nd	nd	nd	nd	nd	nd	18
Bromoform	0.050	nd	nd	nd	nd	nd	nd	0.61 (1.7)
Bromomethane	0.050	nd	nd	nd	nd	nd	nd	0.05
Carbon Tetrachloride	0.050	nd	nd	nd	nd	nd	nd	0.21 (1.5)
Chlorobenzene	0.050	nd	nd	nd	nd	nd	nd	2.4 (2.7)
Dibromochloromethane	0.050	nd	nd	nd	nd	nd	nd	13
Chloroform	0.050	nd	nd	nd	nd	nd	nd	0.47 (0.18)
1,2-Dibromoethane	0.050	nd	nd	nd	nd	nd	nd	0.05
1,2-Dichlorobenzene	0.050	nd	nd	nd	nd	nd	nd	6.8 (8.5)
1,3-Dichlorobenzene	0.050	nd	nd	nd	nd	nd	nd	9.6 (12)
1,4-Dichlorobenzene	0.050	nd	nd	nd	nd	nd	nd	0.2 (0.84)
Dichlorodifluoromethane	0.050	nd	nd	nd	nd	nd	nd	16 (25)
1,1-Dichloroethane	0.050	nd	nd	nd	nd	nd	nd	17 (21)
1,2-Dichloroethane	0.050	nd	nd	nd	nd	nd	nd	0.05
1,1-Dichloroethylene	0.050	nd	nd	nd	nd	nd	nd	0.064 (0.48)
cis-1,2-Dichloroethylene	0.050	nd	nd	nd	nd	nd	nd	55 (37)
trans-1,2-Dichloroethylene	0.050	nd	nd	nd	nd	nd	nd	1.3 (0.3)
Dichloromethane (Methylene Chloride)	0.050	nd	nd	nd	nd	nd	nd	1.6 (2)
1,2-Dichloropropene	0.050	nd	nd	nd	nd	nd	nd	0.16 (0.68)
cis-1,3-Dichloropropene	0.0030	nd	nd	nd	nd	nd	nd	nc
trans-1,3-Dichloropropene	0.0030	nd	nd	nd	nd	nd	nd	nc
n-Hexane	0.050	nd	nd	nd	nd	nd	nd	46 (88)
Methyl Ethyl Ketone	0.50	nd	nd	nd	nd	nd	nd	70 (88)
Methyl Isobutyl Ketone	0.50	nd	nd	nd	nd	nd	nd	31 (210)
MTBE	0.050	nd	nd	nd	nd	nd	nd	11 (3.2)
Styrene	0.050	nd	nd	nd	nd	nd	nd	34 (43)
1,1,1,2-Tetrachloroethane	0.050	nd	nd	nd	nd	nd	nd	0.087 (0.11)
1,1,2,2-Tetrachloroethane	0.050	nd	nd	nd	nd	nd	nd	0.05 (0.094)
Tetrachloroethylene	0.050	nd	nd	nd	nd	nd	nd	4.5 (21)
1,1,1-Trichloroethane	0.050	nd	nd	nd	nd	nd	nd	6.1 (12)
1,1,2-Trichloroethane	0.050	nd	nd	nd	nd	nd	nd	0.05 (0.11)
Trichloroethylene	0.050	nd	nd	nd	nd	nd	nd	0.91 (0.61)
Trichlorofluoromethane	0.050	nd	nd	nd	nd	nd	nd	4 (5.8)
Vinyl Chloride	0.020	nd	nd	nd	nd	nd	nd	0.032 (0.25)

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria

nd = results below detection limit

rp = analysis not performed

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils. Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 6: Summary of Soil Analytical Results for Petroleum Hydrocarbons

Reference: Phase Two ESA
 Client: AJ Lamba Realty Group Inc.
 Site: 900 - 920 Eglinton Avenue East, Mississauga
 Date Sampled: May 23, 2014
 Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Industrial/Commercial Property Use, Fine to Medium Textured Soils

	Petroleum Hydrocarbons F1 µg/g	Petroleum Hydrocarbons F2 µg/g	Petroleum Hydrocarbons F3 µg/g	Petroleum Hydrocarbons F4 µg/g	Benzene µg/g	Toluene µg/g	Ethyl-benzene µg/g	m&p-Xylenes µg/g	o-Xylene µg/g	Xylenes (Total) µg/g
BH1 - 5-7'	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH2 - 8-9'	nd	nd	108	263	nd	nd	nd	nd	nd	nd
BH4 - 5-6'	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH6 - 7-8'	nd	20	198	207	nd	nd	nd	nd	nd	nd
BH7 - 8-10'	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
BH8 - 4-5' (Field Duplicate of BH7 - 8-10')	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Method Detection Limit	5.0	10	50	50	0.020	0.20	0.050	0.030	0.020	0.050
MOE Table 3 April 15, 2011	55 (65)	230 (250)	1,700 (2,500)	3,300 (6,600)	0.32 (0.4)	68 (78)	9.5 (19)	nc	nc	26 (30)

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

np = analysis not performed.

nd = results below detection limit.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.

Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 7:

Summary of Soil Analytical Results for OrganoChloro Pesticides (OCP)

Reference: Phase Two ESA
 Client: AJ Lamba Realty Group Inc.
 Site: 900 - 920 Eglinton Avenue East, Mississauga
 Date Sampled: May 23, 2014
 Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, Industrial/Commercial Property Use, Fine to Medium Textured Soils

OCP Compound	MDL µg/g	BH3 - 2-3'	BH4 - 1-2'	BH5 - 0.5-1'	BH7 - 0.5-2'	MOE Table 3 April 15, 2011
Aldrin	0.020	nd	nd	nd	nd	0.088 (0.11)
gamma-hexachlorocyclohexane	0.010	nd	nd	nd	nd	nc
α-chlordane	0.020	nd	nd	nd	nd	nc
Chlordane (Total)	0.028	nd	nd	nd	nd	0.05
g-chlordane	0.020	nd	nd	nd	nd	nc
op-DDD	0.020	nd	nd	nd	nd	nc
pp-DDD	0.020	nd	nd	nd	nd	nc
Total DDD	0.028	nd	nd	nd	nd	4.6
o,p-DDE	0.020	nd	nd	nd	nd	nc
pp-DDE	0.020	nd	nd	nd	nd	nc
Total DDE	0.028	nd	nd	nd	nd	0.52 (0.65)
op-DDT	0.020	nd	nd	nd	nd	nc
pp-DDT	0.020	nd	nd	nd	nd	nc
Total DDT	0.028	nd	nd	nd	nd	1.4
Dieldrin	0.020	nd	nd	nd	nd	0.088 (0.11)
Endosulfan I	0.020	nd	nd	nd	nd	nc
Endosulfan II	0.020	nd	nd	nd	nd	nc
Endosulfan (Total)	0.028	nd	nd	nd	nd	0.30 (0.38)
Endrin	0.020	nd	nd	nd	nd	0.04
Heptachlor	0.020	nd	nd	nd	nd	0.19
Heptachlor Epoxide	0.020	nd	nd	nd	nd	0.05
Hexachlorobenzene	0.010	nd	nd	nd	nd	0.66
Hexachlorobutadiene	0.010	nd	nd	nd	nd	0.056 (0.063)
Hexachloroethane	0.010	nd	nd	nd	nd	0.21 (0.43)
Methoxychlor	0.020	nd	nd	nd	nd	1.6

All values in micrograms per gram (µg/g) (equivalent to parts per million (ppm))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.
 Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 8: Summary of Groundwater Analytical Results for Metals

Reference: Phase Two ESA
Client: AJ Lamba Realty Group Inc.
Site: 900 - 920 Eglinton Avenue East, Mississauga
Date Sampled: May 23, 2014 (MWA) and May 29, 2014 (MWD)
Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, All Types of Property Use, Fine to Medium Textured Soils

Metals (Dissolved)	MDL ug/L	MWA	MWD (Field duplicate of MWA)	MOE Table 3 April 15, 2011
Antimony (Sb)	0.50	nd	nd	20,000
Arsenic (As)	1.0	nd	nd	1,900
Barium (Ba)	2.0	467	436	29,000
Beryllium (Be)	0.50	nd	nd	67
Boron (B)	10	60	71	45,000
Cadmium (Cd)	0.10	nd	nd	3
Chromium (Cr)	0.50	nd	nd	810
Cobalt (Co)	0.50	3.41	2.75	66
Copper (Cu)	1.0	nd	nd	87
Lead (Pb)	1.0	nd	nd	25
Molybdenum (Mo)	0.50	1.20	1.56	9,200
Nickel (Ni)	1.0	6.0	6.9	490
Selenium (Se)	5.0	nd	nd	63
Silver (Ag)	0.10	nd	nd	1.5
Sodium (Na)	5000	516000	533000	2,300,000
Thallium (Th)	0.30	nd	nd	510
Uranium (U)	2.0	nd	2.8	420
Vanadium (V)	0.50	nd	nd	250
Zinc (Zn)	3.0	nd	13.0	1,100

All values in micrograms per Litre (µg/L) (equivalent to parts per billion (ppb))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.

Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 9:

Summary of Groundwater Analytical Results for Volatile Organic Compounds (VOCs)

Reference: Phase Two ESA
 Client: AJ Lamba Realty Group Inc.
 Site: 900 -920 Eglinton Avenue East, Mississauga
 Date Sampled: May 23, 2014 (MWA and MWC), and May 29, 2014 (MWD)
 Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, All Types of Property Use, Fine to Medium Textured Soils

Compound	MDL µg/L	MWA	MWC	MWD (Field duplicate of MWA)	MOE Table 3 April 15, 2011
Acetone	30	nd	nd	nd	130000
Bromodichloromethane	2.0	nd	nd	nd	85000
Bromoform	5.0	nd	nd	nd	380 (770)
Bromomethane	0.50	nd	nd	nd	5.6 (56)
Carbon Tetrachloride	0.20	nd	nd	nd	0.79 (8.4)
Chlorobenzene	0.50	nd	nd	nd	630
Dibromochloromethane	2.0	nd	nd	nd	82000
Chloroform	1.0	nd	nd	nd	2.4 (22)
1,2-Dibromoethane	0.20	nd	nd	nd	0.25 (0.83)
1,2-Dichlorobenzene	0.50	nd	nd	nd	4600 (9600)
1,3-Dichlorobenzene	0.50	nd	nd	nd	9600
1,4-Dichlorobenzene	0.50	nd	nd	nd	8 (67)
Dichlorodifluoromethane	2.0	nd	nd	nd	4400
1,1-Dichloroethane	0.50	nd	nd	nd	320 (3100)
1,2-Dichloroethane	0.50	nd	nd	nd	1.6 (12)
1,1-Dichloroethylene	0.50	nd	nd	nd	1.6 (17)
cis-1,2-Dichloroethylene	0.50	nd	nd	nd	1.6 (17)
trans-1,2-Dichloroethylene	0.50	nd	nd	nd	1.6 (17)
Dichloromethane (methylene chloride)	5.0	nd	nd	nd	610 (5500)
1,2-Dichloropropane	0.50	nd	nd	nd	16 (140)
cis-1,3-Dichloropropene	0.30	nd	nd	nd	5.2 (45)
trans-1,3-Dichloropropene	0.30	nd	nd	nd	5.2 (45)
n-hexane	0.50	nd	nd	nd	51 (520)
Methyl Ethyl Ketone	20	nd	nd	nd	470000 (1500000)
Methyl Isobutyl Ketone	20	nd	nd	nd	140000 (580000)
MTBE	2.0	nd	nd	nd	190 (1400)
Styrene	0.50	nd	nd	nd	1300 (9100)
1,1,1,2-Tetrachloroethane	0.50	nd	nd	nd	3.3 (28)
1,1,2,2-Tetrachloroethane	0.50	nd	nd	nd	3.2 (15)
Tetrachloroethylene	0.50	nd	nd	nd	1.6 (17)
1,1,1-Trichloroethane	0.50	nd	nd	nd	640 (6700)
1,1,2-Trichloroethane	0.50	nd	nd	nd	4.7 (30)
Trichloroethylene	0.50	nd	nd	nd	1.6 (17)
Trichlorofluoromethane	5.0	nd	nd	nd	2500
Vinyl Chloride	0.50	nd	nd	nd	0.5 (1.7)

All values in micrograms per Litre (µg/L) (equivalent to parts per billion (ppb))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.

Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 10: Summary of Groundwater Analytical Results for Petroleum Constituents

Reference: Phase Two ESA
 Client: AJ Lamba Realty Group Inc.
 Site: 900 - 920 Eglinton Avenue East, Mississauga
 Date Sampled: May 23, 2014 (MWA and MWC), and May 29, 2014 (MWD)
 Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, All Types of Property Use, Fine to Medium Textured Soils

	F1 (C6-C10) Hydrocarbons µg/L	F2 (C10-C16) Hydrocarbons µg/L	F3 (C16-C34) Hydrocarbons µg/L	F4 (C34-C50) Hydrocarbons µg/L	Benzene µg/L	Toluene µg/L	Ethyl- benzene µg/L	m&p Xylenes µg/L	o-Xylene µg/L	Xylenes Total µg/L
MWA	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MWC	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
MWD (Field duplicate of MWA)	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
Method Detection Limit	25	100	250	250	0.50	0.50	0.50	0.40	0.30	0.50
MOE Table 3, April 15, 2011	750	150	500	500	44 (430)	18,000	2,300	nc	nc	4,200

All values in micrograms per litre (µg/L) (equivalent to parts per billion (ppb))

nc = no criteria.

np = analysis not performed.

nd = results below detection limit.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.

Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under Part XV.1 of the Environmental Protection Act, April 15, 2011.



TABLE 11:

Summary of Groundwater Analytical Results for OrganoChloro Pesticides (OCP)

Reference: Phase Two ESA
 Client: AJ Lamba Realty Group Inc.
 Site: 900 - 920 Eglinton Avenue East, Mississauga
 Date Sampled: May 23, 2014
 Utilized Criteria: MOE Table 3, Full Depth Generic Site Condition Standards in a Non-Potable Ground Water Condition, All Types of Property Use, Fine to Medium Textured Soils

OCP Compound	MDL µg/L	MWC	MWE (Field duplicate of MWC)*	MOE Table 3 April 15, 2011
Aldrin	0.010	nd	nd (0.020)	8.5
gamma-hexachlorocyclohexane	0.015	nd	nd (0.020)	nc
α-chlordane	0.040	nd	nd (0.080)	nc
Chlordane (Total)	0.057	nd	nd (0.11)	28
g-chlordane	0.040	nd	nd (0.080)	nc
o,p-DDD	0.030	nd	nd (0.060)	nc
pp-DDD	0.030	nd	nd (0.060)	nc
Total DDD	0.042	nd	nd (0.085)	45
o,p-DDE	0.0080	nd	nd (0.016)	nc
pp-DDE	0.0080	nd	nd (0.016)	nc
Total DDE	0.011	nd	nd (0.023)	20
op-DDT	0.030	nd	nd (0.060)	nc
pp-DDT	0.030	nd	nd (0.060)	nc
Total DDT	0.042	nd	nd (0.085)	2.8
Dieldrin	0.050	nd	nd (0.10)	0.75
Endosulfan I	0.050	nd	nd (0.060)	nc
Endosulfan II	0.030	nd	nd (0.060)	nc
Endosulfan (Total)	0.058	nd	nd (0.085)	1.5
Endrin	0.040	nd	nd (0.080)	0.48
Heptachlor	0.010	nd	nd (0.020)	2.5
Heptachlor Epoxide	0.010	nd	nd (0.020)	0.048
Hexachlorobenzene	0.010	nd	nd (0.020)	3.1
Hexachlorobutadiene	0.010	nd	nd (0.020)	0.44 (4.5)
Hexachloroethane	0.010	nd	nd (0.020)	94 (200)
Methoxychlor	0.050	nd	nd (0.10)	6.5

All values in micrograms per Litre (µg/L) (equivalent to parts per billion (ppb))

nc = no criteria.

nd = results below detection limit.

np = analysis not performed.

Standard value within parenthesis indicates value for fine to medium textured soils; Standard value without parenthesis indicates value for coarse textured soils.

Criteria are taken from the MOE Soil, Ground Water and Sediment Standards for use under part XV.1 of the Environmental Protection Act, April 15, 2011.

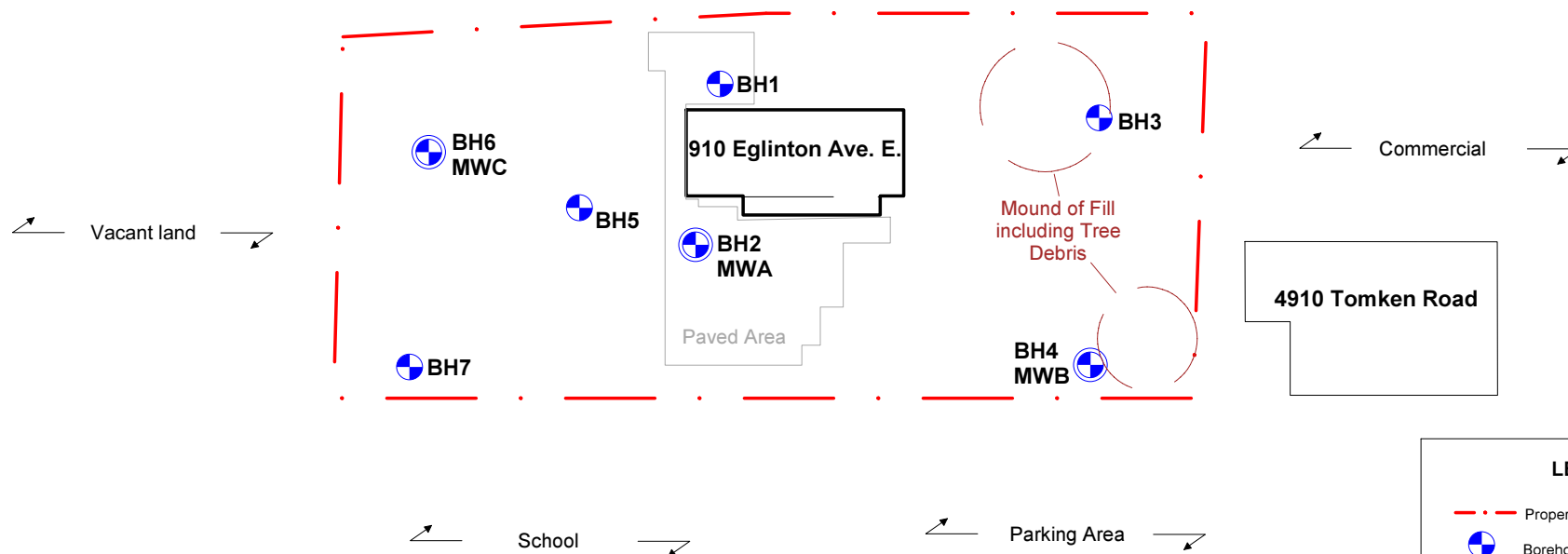
*Detection limit was adjusted due to lower sample volume submitted to laboratory.





Industrial

EGLINTON AVENUE EAST



LEGEND

--- Property Boundary



Borehole Location



MW location

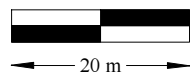
Inner circle represents soil.
Outer circle represents water.
Red represents an exceedance
of applicable MOE criteria
Blue represents no exceedances.



Areas of Natural Significance (none)



Water Bodies (none)

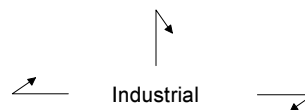


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REV	DATE	REVISION DESCRIPTION	DRW	CHK

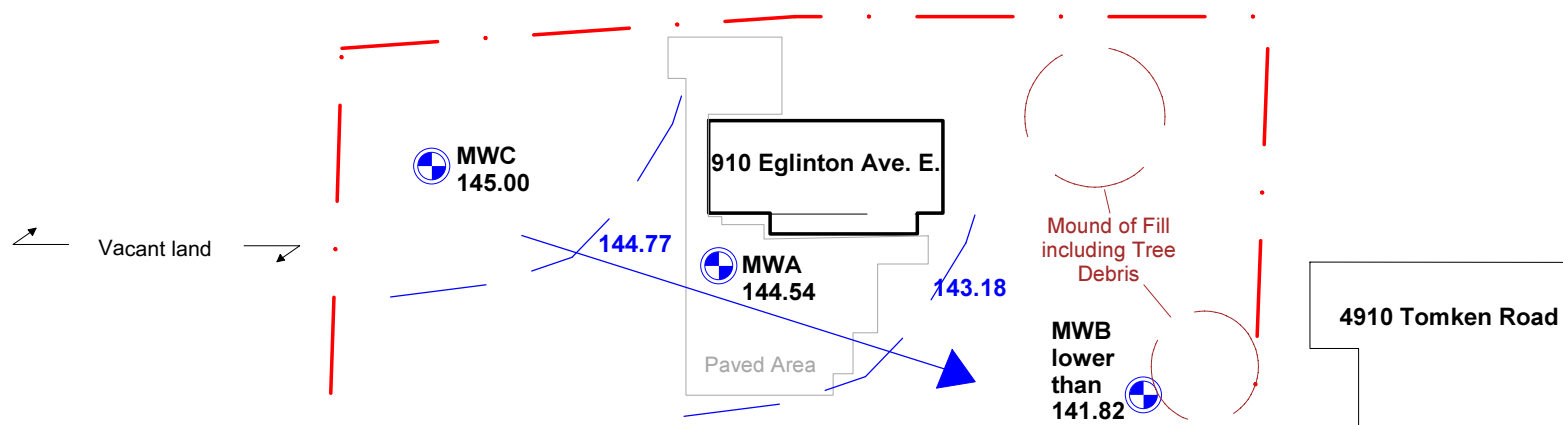


ALTECH Environmental Consulting Ltd.

TITLE			
Site Sketch			
PROJECT			
Phase Two ESA 900-920 Eglinton Ave. E., Msqa			
DRAWN BY	DATE	PROJECT NO.	FIGURE ID
ASM	2014/05/15	5140-14	1
CHECKED BY	DATE	SCALE	REV
CRS	2014/06/05	1:850	00

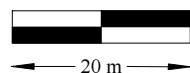


EGLINTON AVENUE EAST



LEGEND

- Approx. Property Boundary
- ⊕ MW location
- Inferred Groundwater Contours
- Inferred Groundwater Flow Direction



00	2014/05/30	Original	ASM	CRS
REV	DATE	REVISION DESCRIPTION	DRW	CHK

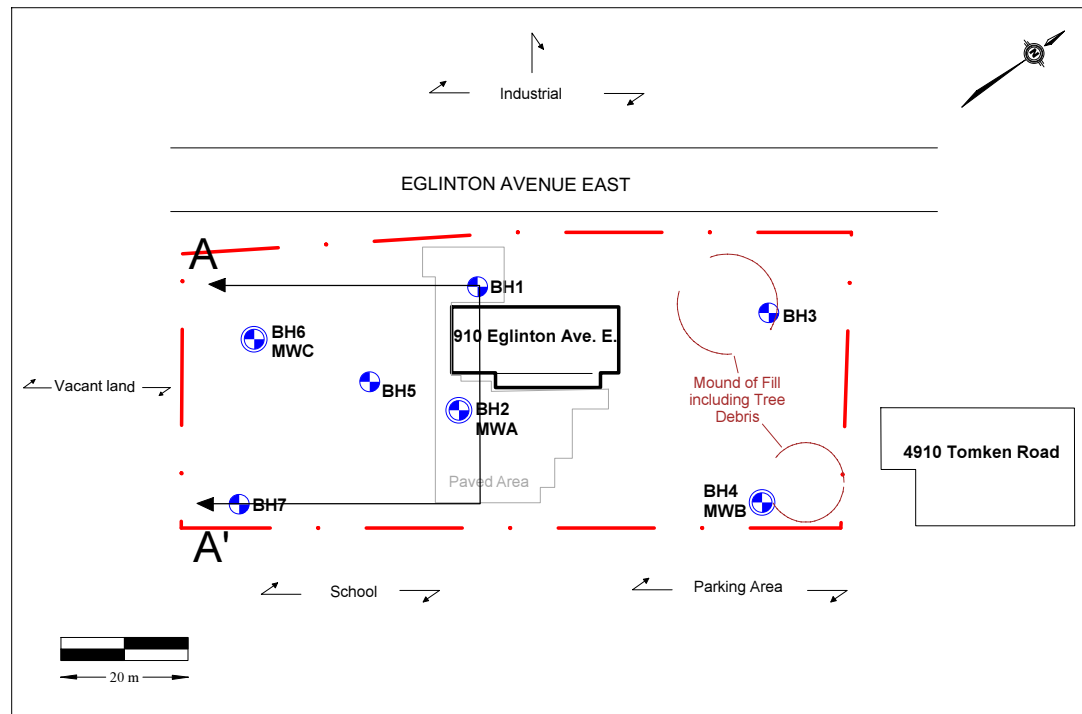


ALTECH Environmental Consulting Ltd.

TITLE
Groundwater Elevations and Contours

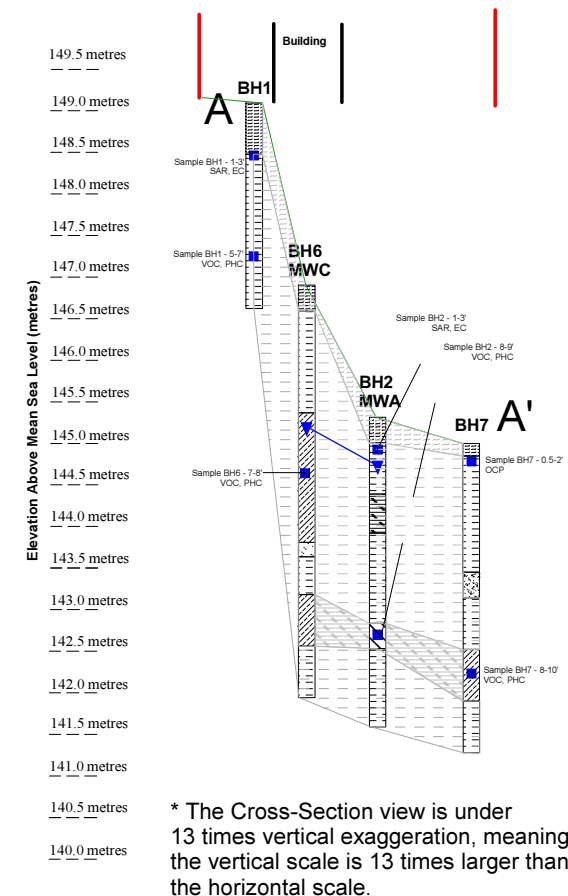
PROJECT
**Phase Two ESA
900-920 Eglinton Ave. E., Msqa**

DRAWN BY ASM	DATE 2014/05/30	PROJECT NO. 5140-14	FIGURE ID 2
CHECKED BY CRS	DATE 2014/06/05	SCALE 1:850	REV 00



LEGEND			
—	Phase Two Property Outline	▲	Water Level
	Building Outline		Surface Layer
●	Borehole Location		Sandy Silt
■	Monitoring Well Location		Silt
			Silty Clay
			Soil Sampling Point Meeting Applicable Site Standards

Cross-section Profile View

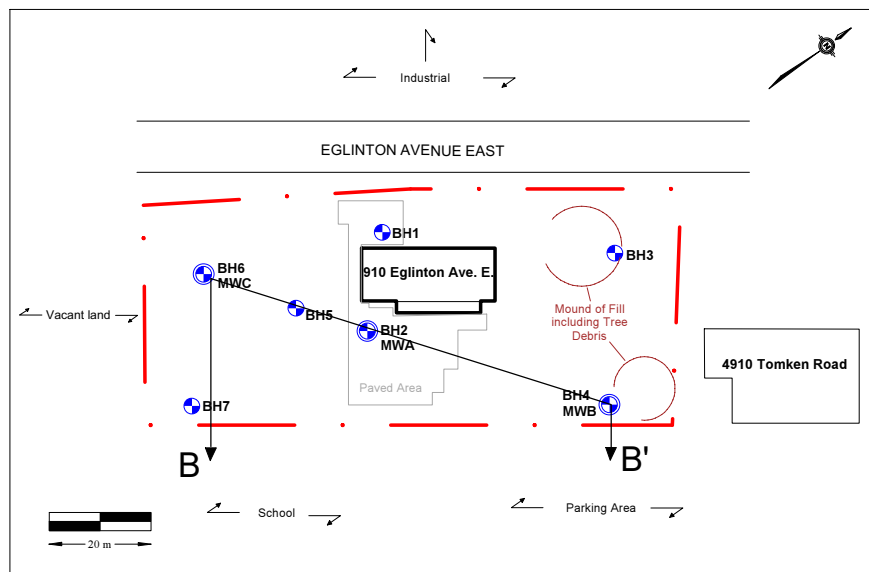


00	2014/05/26	Original	ASM	CRS
REV	DATE	REVISION DESCRIPTION	DRW	CHK

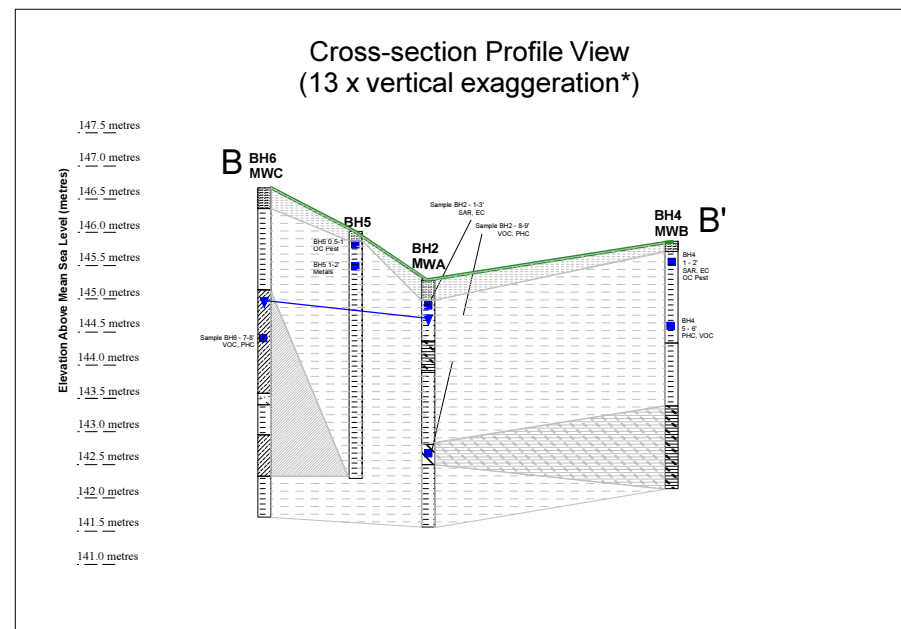


ALTECH Environmental Consulting Ltd.

TITLE			
Cross-Section A - A'			
PROJECT			
Phase Two ESA 900-920 Eglinton Ave. E., Msqa			
DRAWN BY	DATE	PROJECT NO.	FIGURE ID
ASM	2014/05/30	5140-14	3
CHECKED BY	DATE	SCALE	REV
CRS	2014/06/04	1:1200	00



LEGEND	
—	Phase Two Property Outline
	Building Outline
●	Borehole Location
⊕	Monitoring Well Location
▲	Water Level
	Surface Layer
	Sandy Silt
	Silt
	Silty Clay
	Soil Sampling Point Meeting Applicable Site Standards



00	2014/05/26	Original	ASM	CRS
REV	DATE	REVISION DESCRIPTION	DRW	CHK



ALTECH Environmental Consulting Ltd.

TITLE			
Cross-Section B - B'			
PROJECT			
Phase Two ESA 900-920 Eglinton Ave. E., Mga			
DRAWN BY	DATE	PROJECT NO.	FIGURE ID
ASM	2014/05/30	5140-14	4
CHECKED BY	DATE	SCALE	REV
CRS	2014/06/04	1:1500	00

10.0 APPENDICES

The following additional Appendices are attached to this report:

APPENDIX A-1	Sampling and Analysis Plan
APPENDIX A-2	Borehole Logs
APPENDIX A-3	Laboratory Certificates of Analysis
APPENDIX A-4	Official Site Survey
APPENDIX A-5	Utility Locates
APPENDIX A-6	Site Photograph Album

Appendix A – 1
Sampling and Analysis Plan

Appendix A - 1: Sampling and Analysis Plan

This Phase Two ESA was designed with the objective of investigating the potential for subsurface contamination associated with the PCAs identified in the Phase One ESA completed by Toronto Inspection Ltd. in April, 2014.

The subsurface investigation included the advancement of a total of seven (7) boreholes to a maximum depth of approximately 20 feet (6.1 metres) depth below surface and installation of three (3) monitoring wells (MWs A, B and C). The media investigated included soil and groundwater, but not sediment or bedrock. The assessment included the advancement of the boreholes, collection and field screening of soil samples, installation of monitoring wells, collection of groundwater samples, measurement and/or observation of hydrogeologic properties, and analysis of samples for several chemical parameters.

Soil and groundwater samples were collected and analyzed for parameters including Petroleum Hydrocarbons (PHCs) including Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), Metals, Volatile Organic Compounds (VOCs), Sodium Absorption Ratio (SAR), Electrical Conductivity (EC) and Organo Chlorine Pesticides (OCP). Laboratory analytical results were compared to the Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (fine to medium textured soils) for Industrial/Commercial/Community land use (2011 MOE Table 3 Standards), based on current and proposed future property use.

Altech chose the borehole and monitoring well locations to adequately assess the subsurface quality of the soil and groundwater underlying the Phase Two Property in the areas closest to the environmental concerns noted. Please refer to Figure 1 for a visual representation of the borehole locations. The boreholes and monitoring wells were located as follows:

- BH1 was advanced in the west portion of the Phase Two Property, on the paved driveway surface in front of the garage bay door. This borehole was situated to investigate impacts of road-salt application to surficial soils;
- BH2, complete with MWA, was advanced in the central portion of the Phase Two Property, in the paved area near to the rear of the building. This borehole was situated to investigate impacts of road-salt application to surficial soils and impacts from former fuel oil storage in the area;
- BH3 was advanced in the north portion of the Phase Two Property, on the mound of fill that appears to have been artificially created. The borehole was located 11 metres southeast and 11 metres southwest of the north corner of the property. This borehole was situated to investigate impacts of road-salt application to surficial soils, impacts of former pesticide use to surficial soils, and any potential impacts that may be present in the fill (as it is of unknown quality);
- BH4, complete with MWB, was advanced in the northeast portion of the Phase Two Property, beside the mound of fill that appears to have been artificially created in this area. The borehole was located 12 metres southwest and 4 metres northwest of the east corner of the property. This borehole was situated to investigate impacts of former

pesticide use to surficial soils, and any potential impacts that may be present in the fill (as it is of unknown quality);

- BH5 was advanced in the southwest portion of the Phase Two Property, approximately 13 metres southwest of the south corner of the subject site building. This borehole is in the area where a former house building was present. This borehole was situated to investigate impacts of former pesticide use, and any potential impacts that may be present in the fill (as it is of unknown quality);
- BH6, complete with MWC, was advanced in the southwest portion of the Phase Two Property. The borehole was located approximately 30 metres southwest and 6 metres northwest of the south corner of the building. This borehole was situated to investigate impacts of former pesticide use to surficial soils, and off-site impacts from industrial properties to the northwest;
- BH7 was advanced in the south portion of the Phase Two Property, approximately 9 metres northeast and 3 metres northwest of the south corner of the property. This borehole was situated to investigate impacts of former pesticide use to surficial soils.

Soil samples were retrieved from various depth intervals in each borehole. The soil samples were collected and field preserved in accordance with the instructions provided by the laboratory, ALS Environmental Inc. Soil selected for PHC, OCP, Metals and VOC analysis was placed into a new, clean, 250 ml glass jar with a Teflon lined lid. Soil for PHC and VOC analysis was also transferred directly from the soil core using a new, clean, Terracore sampler into two (2) new, clean, 40 ml clear glass vials with Teflon lined lids. Each vial contained 10 ml of methanol, as prepared by the laboratory.

Soil from each depth interval was placed into clean, sealed, 18 x 20 centimetre heavy polyethylene bags so that approximately one quarter of the bag was full, with some headspace in the bag. Any lumps of soil within the bag were gently massaged and broken up by hand. The sample was then monitored for soil vapours accumulated in the headspace. Samples were selected for laboratory analysis on the basis of the field-testing for combustible vapours, and any visual and olfactory evidence of impact.

The samples were labelled with the following information:

- A site reference number (5140);
- A borehole (BH#) reference number for placement of the sample at the site; and,
- A depth interval range from which the sample was retrieved.

Monitoring wells for groundwater sampling were installed in boreholes 2, 4 and 6. The monitoring wells were intended to intercept groundwater in the unconfined aquifer hosted in the overburden soil underlying the site. These wells included installation such that the screened interval straddles the unconfined aquifer in the overburden underlying the site. For further details of monitoring wells please refer to section 5.5 of the report.

Groundwater samples were taken in accordance with the Ontario Ministry of the Environment's document *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in*

Ontario. No measurements of groundwater quality parameters were made in the field. One (1) sample was taken from monitoring wells MWA and MWC, and submitted for laboratory analysis of various parameters. No groundwater sample was taken from MWB, because the well did not yield any groundwater.

The groundwater samples were labelled with the following information:

- A site reference number (5140); and,
- A monitoring well location reference for placement of the sample at the site.

The investigation and sampling plan conducted set out to adequately investigated the APECs identified in the Phase One ESA. It is Altech's opinion the plan was thorough and conservative in its approach.

Appendix A – 2
Borehole Logs



Borehole: BH1

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Asphalt surface, underlaid by gravel. Minimal red brick debris noted.	1						
		2				20 / 40	0 ppm (1-3')	
1	SILT, brown, dry.	3			BH1 1-3' SAR, EC			
	some small pebbles interspersed	4						
	Rock present around 5'.	5			BH1 5-7' VOC, PHC			
2	No visual or olfactory evidence of contamination in the soil column.	6				100	0 ppm (5-7')	
		7						
		8						
		9						
		10						
		11						
3		12						
		13						
		14						
4		15						
		16						
		17						
		18						
5		19						
		20						
		21						
		22						
6		23						
		24						
		25						
		26						
7		27						
		28						

BH1 was advanced in the front driveway, near to the garage door: 5 m north of the northeast corner of the west corner of the building.

Limited recovery (20%) was attained from 0-4' during the borehole advancement. A second drilling was undertaken, with slightly more recovery (40%)



Borehole: BH2/MWA

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Asphalt surface, underlaid by gravel	1						
	SILT, dry, brown	2			BH2 1 - 3' SAR, EC	70	0 ppm (1-3')	
		3						
	SILTY CLAY, soft, dark grey	4					15 ppm (3-4')	
		5						
	SILT, dry, brown	6				100	0 ppm (5-7')	
		7						
		8					50 ppm (8-9')	
2	CLAY, Brown-grey, wet Gravel rocks interspersed	9			BH2 8 - 9' PHC, VOC			
		10				100	0 ppm (10-12')	
	SILT, dry, grey	11						
3		12						
	Small pebbles interspersed throughout borehole	13						
		14						
4		15						
		16						
		17						
		18						
5		19						
		20						
		21						
		22						
6		23						
		24						
		25						
		26						
7		27						
		28						

BH2 was advanced in the rear parking lot: 6 m southeast of south building corner.

Water level was measured to be at 0.70 m bgs on May 23 and at 0.73 m bgs on May 29.



Borehole: BH3

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Grass surface, underlaid by topsoil	1			BH3 1-2' SAR, EC	50	0 ppm (1-3')	BH3 was advanced in the north corner of the property: 11 m southwest and 11 m southeast of the north property corner
	SILT, brown, dry.	2			BH3 2-3' OC Pest.			
	Organic debris interspersed (i.e. small tree roots, leafs)	3						
	Grey sandstone-like rock present around 6'.	4			BH3 5-6' Metals	50	0 ppm (5-7')	
	Trace red brick debris present around 6'.	5						
	No visual or olfactory evidence of contamination.	6						
		7						
		8						
		9						
		10						
3		11						
		12						
		13						
		14						
4		15						
		16						
		17						
		18						
5		19						
		20						
		21						
		22						
		23						
6		24						
		25						
		26						
		27						
7		28						



Borehole: BH4/MWB

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Asphalt surface, underlaid by gravel	1			BH4 1 - 2' SAR, EC OC Pest	90	0 ppm (1-2')	BH2 was advanced near the East corner of the site.
	SILT, dry, brown	2					0 ppm (3-4')	
		3						
		4						
2	SILT, grey-brown, wood debris, small pebbles interspersed	5			BH4 5 - 6' PHC, VOC	90	5 ppm (5-6')	The well was found to be dry on May 23 and again on May 29.
		6					0 ppm (6-7')	
		7						
		8					0 ppm (9-10')	
3	SILTY CLAY, Grey-brown, wet Pebbles interspersed	9				80		
	No visual or olfactory evidence of contamination in the soil column.	10						
		11						
		12						
		13						
		14						
4		15						
		16						
		17						
		18						
5		19						
		20						
		21						
		22						
6		23						
		24						
		25						
		26						
7		27						
		28						



Borehole: BH5

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Grass surface, underlaid by topsoil	1			BH5 0.5-1' OC Pest		0 ppm (0.5-1')	
	SILT, brown, dry	2			BH5 1-2' Metals	80		
		3					10 ppm (3-4')	
	Red brick piece encountered around 1.5'	4					0 ppm (4-5')	
		5						
	Coppery-tint staining encountered around 5'	6				100	0 ppm (6-7')	
		7						
2		8						
	SILT, grey, dry	9						
		10				100	0 ppm (10-11')	
		11						
3		12						
	No visual or olfactory evidence of contamination in the soil column.	13						
		14						
4		15						
		16						
		17						
		18						
5		19						
		20						
		21						
		22						
6		23						
		24						
		25						
		26						
		27						
7		28						

BH5 was advanced 12 metres southwest and 2 metres southeast of the south corner of the building.

The sample analyzed for metals consisted of the silt material on either side of the brick piece.



Borehole: BH6/MWC

Phase Two ESA
 AJ Lamba Realty Group Inc.
 900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
 Date: May 23, 2014
 Drilling Co.: Strata Drilling Group
 Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Grass surface	1						
	SILT, dry, brown	2				70	0 ppm (2-3')	BH6 was advanced 30 metres southwest of the south building face.
		3						
		4						
		5				60		Water level was measured to be at 1.60 m bgs on May 23.
	SANDY SILT, brown (5-6.5') brown-grey (6.5-10')	6						
		7					160 ppm (7-8')	
		8						
		9					110 ppm (9-10')	
		10				80		
	SAND, Light Brown, Granular	11					0 ppm (11-12')	
	SILT, dry, Brown-grey	12						
		13					15 ppm (12-13')	
	SANDY SILT, wet, grey	14				100		
		15					10 ppm (14-16')	
	SILT, dry, grey	16						
		17						
		18						
		19						
		20						
		21						
		22						
		23						
		24						
		25						
		26						
		27						
		28						



Borehole: BH7

Phase Two ESA
AJ Lamba Realty Group Inc.
900 - 920 Eglinton Ave. E., Mississauga, On

Logged by: Andrew Mutrie
Date: May 23, 2014
Drilling Co.: Strata Drilling Group
Drill Method: Geoprobe 7822DT

Depth (m)	DESCRIPTION	Depth (ft)	Strata Plot	Well Details	Sample ID and Type	Recovery %	VOC Concentration	Comments: Blow Count, N Value, Water level
1	Grass surface, underlaid by brown silty topsoil	1			BH7 0.5-2' OC Pest			
		2				50	0 ppm (1-3')	
	SILT, grey-brown, dry	3						BH5 was advanced near to the south corner of the property.
		4						
		5					0 ppm (5-6')	
	SAND, dark-grey	6				100		
	ROCK, grey	7					0 ppm (6.5-7.5')	
	SILT, grey, dry	8						
2		9			BH7 8-10' VOC, PHC		45 ppm (8-10')	
	SANDY SILT, wet, grey-brown	10				100		
		11					0 ppm (10-12')	
	SILT, grey, dry	12						
3		13						
	No visual or olfactory evidence of contamination in the soil column.	14						
		15						
4		16						
		17						
		18						
5		19						
		20						
		21						
		22						
6		23						
		24						
		25						
		26						
7		27						
		28						

Appendix A – 3
Laboratory Analysis Reports



ALTECH ENVIRONMENTAL
ATTN: ANDREW MUTRIE
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 23-MAY-14
Report Date: 03-JUN-14 14:19 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L1459559
Project P.O. #: NOT SUBMITTED
Job Reference: 5140-14
C of C Numbers: 155678, 155679
Legal Site Desc:

Comments: 28-MAY-14:
As per Andrew's request add PSA and pH to Fraction 3.

Mathumai Ganeshkumar
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 95 West Beaver Creek Road, Unit 1, Richmond Hill, ON L4B 1H2 Canada | Phone: +1 905 881 9887 | Fax: +1 905 881 8062
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company



ANALYTICAL GUIDELINE REPORT

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-1	MWA									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	WATER									
Dissolved Metals										
Dissolved Metals Filtration Location	LAB				No Unit	27-MAY-14				
Antimony (Sb)-Dissolved	<0.50			0.50	ug/L	27-MAY-14				
Arsenic (As)-Dissolved	<1.0			1.0	ug/L	27-MAY-14				
Barium (Ba)-Dissolved	467			2.0	ug/L	27-MAY-14				
Beryllium (Be)-Dissolved	<0.50			0.50	ug/L	27-MAY-14				
Boron (B)-Dissolved	60			10	ug/L	27-MAY-14				
Cadmium (Cd)-Dissolved	<0.10			0.10	ug/L	27-MAY-14				
Chromium (Cr)-Dissolved	<0.50			0.50	ug/L	27-MAY-14				
Cobalt (Co)-Dissolved	3.41			0.50	ug/L	27-MAY-14				
Copper (Cu)-Dissolved	<1.0			1.0	ug/L	27-MAY-14				
Lead (Pb)-Dissolved	<1.0			1.0	ug/L	27-MAY-14				
Molybdenum (Mo)-Dissolved	1.20			0.50	ug/L	27-MAY-14				
Nickel (Ni)-Dissolved	6.0			1.0	ug/L	27-MAY-14				
Selenium (Se)-Dissolved	<5.0			5.0	ug/L	27-MAY-14				
Silver (Ag)-Dissolved	<0.10			0.10	ug/L	27-MAY-14				
Sodium (Na)-Dissolved	516000		DLM	5000	ug/L	27-MAY-14				
Thallium (Tl)-Dissolved	<0.30			0.30	ug/L	27-MAY-14				
Uranium (U)-Dissolved	<2.0			2.0	ug/L	27-MAY-14				
Vanadium (V)-Dissolved	<0.50			0.50	ug/L	27-MAY-14				
Zinc (Zn)-Dissolved	<3.0			3.0	ug/L	27-MAY-14				
Volatile Organic Compounds										
Acetone	<30			30	ug/L	27-MAY-14				
Benzene	<0.50			0.50	ug/L	27-MAY-14				
Bromodichloromethane	<2.0			2.0	ug/L	27-MAY-14				
Bromoform	<5.0			5.0	ug/L	27-MAY-14				
Bromomethane	<0.50			0.50	ug/L	27-MAY-14				
Carbon tetrachloride	<0.20			0.20	ug/L	27-MAY-14				
Chlorobenzene	<0.50			0.50	ug/L	27-MAY-14				
Dibromochloromethane	<2.0			2.0	ug/L	27-MAY-14				
Chloroform	<1.0			1.0	ug/L	27-MAY-14				
1,2-Dibromoethane	<0.20			0.20	ug/L	27-MAY-14				
1,2-Dichlorobenzene	<0.50			0.50	ug/L	27-MAY-14				
1,3-Dichlorobenzene	<0.50			0.50	ug/L	27-MAY-14				
1,4-Dichlorobenzene	<0.50			0.50	ug/L	27-MAY-14				
Dichlorodifluoromethane	<2.0			2.0	ug/L	27-MAY-14				
1,1-Dichloroethane	<0.50			0.50	ug/L	27-MAY-14				
1,2-Dichloroethane	<0.50			0.50	ug/L	27-MAY-14				
1,1-Dichloroethylene	<0.50			0.50	ug/L	27-MAY-14				
cis-1,2-Dichloroethylene	<0.50			0.50	ug/L	27-MAY-14				
trans-1,2-Dichloroethylene	<0.50			0.50	ug/L	27-MAY-14				
1,3-Dichloropropene (cis & trans)	<0.50			0.50	ug/L	27-MAY-14				
Methylene Chloride	<5.0			5.0	ug/L	27-MAY-14				
1,2-Dichloropropane	<0.50			0.50	ug/L	27-MAY-14				
cis-1,3-Dichloropropene	<0.30			0.30	ug/L	27-MAY-14				
trans-1,3-Dichloropropene	<0.30			0.30	ug/L	27-MAY-14				
Ethyl Benzene	<0.50			0.50	ug/L	27-MAY-14				
n-Hexane	<0.50			0.50	ug/L	27-MAY-14				
Methyl Ethyl Ketone	<20			20	ug/L	27-MAY-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

L1459559 CONTD....

Page 3 of 20

03-JUN-14 14:19 (MT)

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-1	MWA									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: WATER										
Volatile Organic Compounds										
	Methyl Isobutyl Ketone	<20		20	ug/L	27-MAY-14				
	MTBE	<2.0		2.0	ug/L	27-MAY-14				
	Styrene	<0.50		0.50	ug/L	27-MAY-14				
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	27-MAY-14				
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	27-MAY-14				
	Tetrachloroethylene	<0.50		0.50	ug/L	27-MAY-14				
	Toluene	<0.50		0.50	ug/L	27-MAY-14				
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	27-MAY-14				
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	27-MAY-14				
	Trichloroethylene	<0.50		0.50	ug/L	27-MAY-14				
	Trichlorofluoromethane	<5.0		5.0	ug/L	27-MAY-14				
	Vinyl chloride	<0.50		0.50	ug/L	27-MAY-14				
	o-Xylene	<0.30		0.30	ug/L	27-MAY-14				
	m+p-Xylenes	<0.40		0.40	ug/L	27-MAY-14				
	Xylenes (Total)	<0.50		0.50	ug/L	27-MAY-14				
	Surrogate: 4-Bromofluorobenzene	90.5		70-130	%	27-MAY-14				
	Surrogate: 1,4-Difluorobenzene	97.7		70-130	%	27-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<25		25	ug/L	27-MAY-14				
	F1-BTEX	<25		25	ug/L	30-MAY-14				
	F2 (C10-C16)	<100		100	ug/L	30-MAY-14				
	F3 (C16-C34)	<250		250	ug/L	30-MAY-14				
	F4 (C34-C50)	<250		250	ug/L	30-MAY-14				
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	85.6		60-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	94.9		60-140	%	27-MAY-14				
L1459559-2	MWC									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: WATER										
Volatile Organic Compounds										
	Acetone	<30		30	ug/L	28-MAY-14				
	Benzene	<0.50		0.50	ug/L	28-MAY-14				
	Bromodichloromethane	<2.0		2.0	ug/L	28-MAY-14				
	Bromoform	<5.0		5.0	ug/L	28-MAY-14				
	Bromomethane	<0.50		0.50	ug/L	28-MAY-14				
	Carbon tetrachloride	<0.20		0.20	ug/L	28-MAY-14				
	Chlorobenzene	<0.50		0.50	ug/L	28-MAY-14				
	Dibromochloromethane	<2.0		2.0	ug/L	28-MAY-14				
	Chloroform	<1.0		1.0	ug/L	28-MAY-14				
	1,2-Dibromoethane	<0.20		0.20	ug/L	28-MAY-14				
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	28-MAY-14				
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	28-MAY-14				
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	28-MAY-14				
	Dichlorodifluoromethane	<2.0		2.0	ug/L	28-MAY-14				
	1,1-Dichloroethane	<0.50		0.50	ug/L	28-MAY-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-2	MWC									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	WATER									
Volatile Organic Compounds										
	1,2-Dichloroethane	<0.50		0.50	ug/L	28-MAY-14				
	1,1-Dichloroethylene	<0.50		0.50	ug/L	28-MAY-14				
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	28-MAY-14				
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	28-MAY-14				
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	28-MAY-14				
	Methylene Chloride	<5.0		5.0	ug/L	28-MAY-14				
	1,2-Dichloropropane	<0.50		0.50	ug/L	28-MAY-14				
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	28-MAY-14				
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	28-MAY-14				
	Ethyl Benzene	<0.50		0.50	ug/L	28-MAY-14				
	n-Hexane	<0.50		0.50	ug/L	28-MAY-14				
	Methyl Ethyl Ketone	<20		20	ug/L	28-MAY-14				
	Methyl Isobutyl Ketone	<20		20	ug/L	28-MAY-14				
	MTBE	<2.0		2.0	ug/L	28-MAY-14				
	Styrene	<0.50		0.50	ug/L	28-MAY-14				
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	28-MAY-14				
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	28-MAY-14				
	Tetrachloroethylene	<0.50		0.50	ug/L	28-MAY-14				
	Toluene	<0.50		0.50	ug/L	28-MAY-14				
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	28-MAY-14				
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	28-MAY-14				
	Trichloroethylene	<0.50		0.50	ug/L	28-MAY-14				
	Trichlorofluoromethane	<5.0		5.0	ug/L	28-MAY-14				
	Vinyl chloride	<0.50		0.50	ug/L	28-MAY-14				
	o-Xylene	<0.30		0.30	ug/L	28-MAY-14				
	m+p-Xylenes	<0.40		0.40	ug/L	28-MAY-14				
	Xylenes (Total)	<0.50		0.50	ug/L	28-MAY-14				
	Surrogate: 4-Bromofluorobenzene	87.3		70-130	%	28-MAY-14				
	Surrogate: 1,4-Difluorobenzene	97.3		70-130	%	28-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<25		25	ug/L	28-MAY-14				
	F1-BTEX	<25		25	ug/L	30-MAY-14				
	F2 (C10-C16)	<100		100	ug/L	30-MAY-14				
	F3 (C16-C34)	<250		250	ug/L	30-MAY-14				
	F4 (C34-C50)	<250		250	ug/L	30-MAY-14				
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	87.5		60-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	63.2		60-140	%	28-MAY-14				
Organochlorine Pesticides										
	Aldrin	<0.010		0.010	ug/L	30-MAY-14				
	gamma-hexachlorocyclohexane	<0.015	DLM	0.015	ug/L	30-MAY-14				
	a-chlordane	<0.040		0.040	ug/L	30-MAY-14				
	Chlordane (Total)	<0.057		0.057	ug/L	30-MAY-14				
	g-chlordane	<0.040		0.040	ug/L	30-MAY-14				
	o,p-DDD	<0.030		0.030	ug/L	30-MAY-14				
	pp-DDD	<0.030		0.030	ug/L	30-MAY-14				
	Total DDD	<0.042		0.042	ug/L	30-MAY-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

L1459559 CONTD....

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-2	MWC									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	WATER									
Organochlorine Pesticides										
	o,p-DDE	<0.0080		0.0080	ug/L	30-MAY-14				
	pp-DDE	<0.0080		0.0080	ug/L	30-MAY-14				
	Total DDE	<0.011		0.011	ug/L	30-MAY-14				
	op-DDT	<0.030		0.030	ug/L	30-MAY-14				
	pp-DDT	<0.030		0.030	ug/L	30-MAY-14				
	Total DDT	<0.042		0.042	ug/L	30-MAY-14				
	Dieldrin	<0.050		0.050	ug/L	30-MAY-14				
	Endosulfan I	<0.050	DLM	0.050	ug/L	30-MAY-14				
	Endosulfan II	<0.030		0.030	ug/L	30-MAY-14				
	Endosulfan (Total)	<0.058		0.058	ug/L	30-MAY-14				
	Endrin	<0.040		0.040	ug/L	30-MAY-14				
	Heptachlor	<0.010		0.010	ug/L	30-MAY-14				
	Heptachlor Epoxide	<0.010		0.010	ug/L	30-MAY-14				
	Hexachlorobenzene	<0.010		0.010	ug/L	30-MAY-14				
	Hexachlorobutadiene	<0.010		0.010	ug/L	30-MAY-14				
	Hexachloroethane	<0.010		0.010	ug/L	30-MAY-14				
	Methoxychlor	<0.050		0.050	ug/L	30-MAY-14				
	Surrogate: 2-Fluorobiphenyl	96.2		50-140	%	30-MAY-14				
	Surrogate: d14-Terphenyl	103.8		50-140	%	30-MAY-14				
L1459559-3	BH1-5-7'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Physical Tests										
	% Moisture	11.8		0.10	%	24-MAY-14				
	pH	7.89		0.10	pH units	30-MAY-14				
Particle Size										
	% >75um	30.0		1.0	%	03-JUN-14				
Volatile Organic Compounds										
	Acetone	<0.50		0.50	ug/g	28-MAY-14	16	28	16	28
	Benzene	<0.020		0.020	ug/g	28-MAY-14	0.21	0.17	0.32	0.4
	Bromodichloromethane	<0.050		0.050	ug/g	28-MAY-14	1.5	1.9	1.5	1.9
	Bromoform	<0.050		0.050	ug/g	28-MAY-14	0.27	0.26	0.61	1.7
	Bromomethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
	Carbon tetrachloride	<0.050		0.050	ug/g	28-MAY-14	0.05	0.12	0.21	0.71
	Chlorobenzene	<0.050		0.050	ug/g	28-MAY-14	2.4	2.7	2.4	2.7
	Dibromochloromethane	<0.050		0.050	ug/g	28-MAY-14	2.3	2.9	2.3	2.9
	Chloroform	<0.050		0.050	ug/g	28-MAY-14	0.05	0.17	0.47	0.18
	1,2-Dibromoethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
	1,2-Dichlorobenzene	<0.050		0.050	ug/g	28-MAY-14	1.2	1.7	1.2	1.7
	1,3-Dichlorobenzene	<0.050		0.050	ug/g	28-MAY-14	4.8	6	9.6	12
	1,4-Dichlorobenzene	<0.050		0.050	ug/g	28-MAY-14	0.083	0.097	0.2	0.57
	Dichlorodifluoromethane	<0.050		0.050	ug/g	28-MAY-14	16	25	16	25
	1,1-Dichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.47	0.6	0.47	0.6
	1,2-Dichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
	1,1-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.064	0.48

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-3	BH1-5-7'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Volatile Organic Compounds										
	cis-1,2-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	1.9	2.5	1.9	2.5
	trans-1,2-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.084	0.75	1.3	2.5
	1,3-Dichloropropene (cis & trans)	<0.042		0.042	ug/g	28-MAY-14	0.05	0.081	0.059	0.081
	Methylene Chloride	<0.050		0.050	ug/g	28-MAY-14	0.1	0.96	1.6	2
	1,2-Dichloropropane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.085	0.16	0.68
	cis-1,3-Dichloropropene	<0.030		0.030	ug/g	28-MAY-14				
	trans-1,3-Dichloropropene	<0.030		0.030	ug/g	28-MAY-14				
	Ethyl Benzene	<0.050		0.050	ug/g	28-MAY-14	1.1	1.6	1.1	1.6
	n-Hexane	<0.050		0.050	ug/g	28-MAY-14	2.8	34	46	88
	Methyl Ethyl Ketone	<0.50		0.50	ug/g	28-MAY-14	16	44	70	88
	Methyl Isobutyl Ketone	<0.50		0.50	ug/g	28-MAY-14	1.7	4.3	31	210
	MTBE	<0.050		0.050	ug/g	28-MAY-14	0.75	1.4	1.6	2.3
	Styrene	<0.050		0.050	ug/g	28-MAY-14	0.7	2.2	34	43
	1,1,1,2-Tetrachloroethane	<0.050		0.050	ug/g	28-MAY-14	0.058	0.05	0.087	0.11
	1,1,2,2-Tetrachloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.094
	Tetrachloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.28	2.3	1.9	2.5
	Toluene	<0.20		0.20	ug/g	28-MAY-14	2.3	6	6.4	9
	1,1,1-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.38	3.4	6.1	12
	1,1,2-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.11
	Trichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.061	0.52	0.55	0.61
	Trichlorofluoromethane	<0.050		0.050	ug/g	28-MAY-14	4	5.8	4	5.8
	Vinyl chloride	<0.020		0.020	ug/g	28-MAY-14	0.02	0.022	0.032	0.25
	o-Xylene	<0.020		0.020	ug/g	28-MAY-14				
	m+p-Xylenes	<0.030		0.030	ug/g	28-MAY-14				
	Xylenes (Total)	<0.050		0.050	ug/g	28-MAY-14	3.1	25	26	30
	Surrogate: 4-Bromofluorobenzene	90.6		70-130	%	28-MAY-14				
	Surrogate: 1,4-Difluorobenzene	98.2		70-130	%	28-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<5.0		5.0	ug/g	28-MAY-14	55	65	55	65
	F1-BTEX	<5.0		5.0	ug/g	30-MAY-14	55	65	55	65
	F2 (C10-C16)	<10		10	ug/g	30-MAY-14	98	150	230	250
	F3 (C16-C34)	<50		50	ug/g	30-MAY-14	300	1300	1700	2500
	F4 (C34-C50)	<50		50	ug/g	30-MAY-14	2800	5600	3300	6600
	Total Hydrocarbons (C6-C50)	<72		72	ug/g	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	89.7		50-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	95.9		60-140	%	28-MAY-14				
L1459559-4	BH1-1-3'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Physical Tests										
	Conductivity	0.542		0.0040	mS/cm	27-MAY-14	0.7	0.7	1.4	1.4
Saturated Paste Extractables										
	SAR	5.27		0.10	SAR	26-MAY-14	*5	*5	12	12

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-4	BH1-1-3'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Saturated Paste Extractables										
Calcium (Ca)		17.3		0.10	mg/L	26-MAY-14				
Magnesium (Mg)		1.91		0.10	mg/L	26-MAY-14				
Sodium (Na)		86.6		0.10	mg/L	26-MAY-14				
L1459559-5	BH2-8-9'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		17.1		0.10	%	24-MAY-14				
Volatile Organic Compounds										
Acetone		<0.50		0.50	ug/g	28-MAY-14	16	28	16	28
Benzene		<0.020		0.020	ug/g	28-MAY-14	0.21	0.17	0.32	0.4
Bromodichloromethane		<0.050		0.050	ug/g	28-MAY-14	1.5	1.9	1.5	1.9
Bromoform		<0.050		0.050	ug/g	28-MAY-14	0.27	0.26	0.61	1.7
Bromomethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
Carbon tetrachloride		<0.050		0.050	ug/g	28-MAY-14	0.05	0.12	0.21	0.71
Chlorobenzene		<0.050		0.050	ug/g	28-MAY-14	2.4	2.7	2.4	2.7
Dibromochloromethane		<0.050		0.050	ug/g	28-MAY-14	2.3	2.9	2.3	2.9
Chloroform		<0.050		0.050	ug/g	28-MAY-14	0.05	0.17	0.47	0.18
1,2-Dibromoethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,2-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	1.2	1.7	1.2	1.7
1,3-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	4.8	6	9.6	12
1,4-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	0.083	0.097	0.2	0.57
Dichlorodifluoromethane		<0.050		0.050	ug/g	28-MAY-14	16	25	16	25
1,1-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.47	0.6	0.47	0.6
1,2-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,1-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.064	0.48
cis-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	1.9	2.5	1.9	2.5
trans-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.084	0.75	1.3	2.5
1,3-Dichloropropene (cis & trans)		<0.042		0.042	ug/g	28-MAY-14	0.05	0.081	0.059	0.081
Methylene Chloride		<0.050		0.050	ug/g	28-MAY-14	0.1	0.96	1.6	2
1,2-Dichloropropane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.085	0.16	0.68
cis-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
trans-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
Ethyl Benzene		<0.050		0.050	ug/g	28-MAY-14	1.1	1.6	1.1	1.6
n-Hexane		<0.050		0.050	ug/g	28-MAY-14	2.8	34	46	88
Methyl Ethyl Ketone		<0.50		0.50	ug/g	28-MAY-14	16	44	70	88
Methyl Isobutyl Ketone		<0.50		0.50	ug/g	28-MAY-14	1.7	4.3	31	210
MTBE		<0.050		0.050	ug/g	28-MAY-14	0.75	1.4	1.6	2.3
Styrene		<0.050		0.050	ug/g	28-MAY-14	0.7	2.2	34	43
1,1,1,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.058	0.05	0.087	0.11
1,1,2,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.094
Tetrachloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.28	2.3	1.9	2.5
Toluene		<0.20		0.20	ug/g	28-MAY-14	2.3	6	6.4	9
1,1,1-Trichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.38	3.4	6.1	12

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-5	BH2-8-9'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Volatile Organic Compounds										
	1,1,2-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.11
	Trichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.061	0.52	0.55	0.61
	Trichlorofluoromethane	<0.050		0.050	ug/g	28-MAY-14	4	5.8	4	5.8
	Vinyl chloride	<0.020		0.020	ug/g	28-MAY-14	0.02	0.022	0.032	0.25
	o-Xylene	<0.020		0.020	ug/g	28-MAY-14				
	m+p-Xylenes	<0.030		0.030	ug/g	28-MAY-14				
	Xylenes (Total)	<0.050		0.050	ug/g	28-MAY-14	3.1	25	26	30
	Surrogate: 4-Bromofluorobenzene	91.0		70-130	%	28-MAY-14				
	Surrogate: 1,4-Difluorobenzene	98.6		70-130	%	28-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<5.0		5.0	ug/g	28-MAY-14	55	65	55	65
	F1-BTEX	<5.0		5.0	ug/g	30-MAY-14	55	65	55	65
	F2 (C10-C16)	<10		10	ug/g	30-MAY-14	98	150	230	250
	F3 (C16-C34)	108		50	ug/g	30-MAY-14	300	1300	1700	2500
	F4 (C34-C50)	263		50	ug/g	30-MAY-14	2800	5600	3300	6600
	Total Hydrocarbons (C6-C50)	371		72	ug/g	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	99.5		50-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	96.6		60-140	%	28-MAY-14				
L1459559-6	BH2-1-3'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
	Conductivity	0.493		0.0040	mS/cm	27-MAY-14	0.7	0.7	1.4	1.4
Saturated Paste Extractables										
	SAR	5.68		0.10	SAR	26-MAY-14	*5	*5	12	12
	Calcium (Ca)	18.9		0.10	mg/L	26-MAY-14				
	Magnesium (Mg)	1.50		0.10	mg/L	26-MAY-14				
	Sodium (Na)	95.4		0.10	mg/L	26-MAY-14				
L1459559-7	BH3-5-6'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Metals										
	Antimony (Sb)	<1.0		1.0	ug/g	26-MAY-14	7.5	7.5	40	50
	Arsenic (As)	4.6		1.0	ug/g	26-MAY-14	11	11	18	18
	Barium (Ba)	61.2		1.0	ug/g	26-MAY-14	390	390	670	670
	Beryllium (Be)	0.59		0.50	ug/g	26-MAY-14	4	5	8	10
	Boron (B)	8.6		5.0	ug/g	26-MAY-14	120	120	120	120
	Cadmium (Cd)	<0.50		0.50	ug/g	26-MAY-14	1	1	1.9	1.9
	Chromium (Cr)	20.5		1.0	ug/g	26-MAY-14	160	160	160	160
	Cobalt (Co)	9.5		1.0	ug/g	26-MAY-14	22	22	80	100
	Copper (Cu)	23.1		1.0	ug/g	26-MAY-14	140	180	230	300
	Lead (Pb)	21.0		1.0	ug/g	26-MAY-14	45	45	120	120

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-7	BH3-5-6'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Metals										
Molybdenum (Mo)		<1.0		1.0	ug/g	26-MAY-14	6.9	6.9	40	40
Nickel (Ni)		21.0		1.0	ug/g	26-MAY-14	100	130	270	340
Selenium (Se)		<1.0		1.0	ug/g	26-MAY-14	2.4	2.4	5.5	5.5
Silver (Ag)		<0.20		0.20	ug/g	26-MAY-14	20	25	40	50
Thallium (Tl)		<0.50		0.50	ug/g	26-MAY-14	1	1	3.3	3.3
Uranium (U)		<1.0		1.0	ug/g	26-MAY-14	23	23	33	33
Vanadium (V)		29.8		1.0	ug/g	26-MAY-14	86	86	86	86
Zinc (Zn)		82.5		5.0	ug/g	26-MAY-14	340	340	340	340
L1459559-8	BH3-2-3'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Physical Tests										
% Moisture		19.5		0.10	%	24-MAY-14				
Organochlorine Pesticides										
Aldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
gamma-hexachlorocyclohexane		<0.010		0.010	ug/g	27-MAY-14	0.056	0.063	0.056	0.063
a-chlordane		<0.020		0.020	ug/g	27-MAY-14				
Chlordane (Total)		<0.028		0.028	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
g-chlordane		<0.020		0.020	ug/g	27-MAY-14				
op-DDD		<0.020		0.020	ug/g	27-MAY-14				
pp-DDD		<0.020		0.020	ug/g	27-MAY-14				
Total DDD		<0.028		0.028	ug/g	28-MAY-14	3.3	3.3	4.6	4.6
o,p-DDE		<0.020		0.020	ug/g	27-MAY-14				
pp-DDE		<0.020		0.020	ug/g	27-MAY-14				
Total DDE		<0.028		0.028	ug/g	28-MAY-14	0.26	0.33	0.52	0.65
op-DDT		<0.020		0.020	ug/g	27-MAY-14				
pp-DDT		<0.020		0.020	ug/g	27-MAY-14				
Total DDT		<0.028		0.028	ug/g	28-MAY-14	0.078	0.078	1.4	1.4
Dieldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
Endosulfan I		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan II		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan (Total)		<0.028		0.028	ug/g	28-MAY-14	0.04	0.04	0.3	0.38
Endrin		<0.020		0.020	ug/g	27-MAY-14	0.04	0.04	0.04	0.04
Heptachlor		<0.020		0.020	ug/g	27-MAY-14	0.15	0.15	0.19	0.19
Heptachlor Epoxide		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.05	0.05
Hexachlorobenzene		<0.010		0.010	ug/g	27-MAY-14	0.52	0.52	0.66	0.66
Hexachlorobutadiene		<0.010		0.010	ug/g	27-MAY-14	0.012	0.014	0.031	0.095
Hexachloroethane		<0.010		0.010	ug/g	27-MAY-14	0.089	0.07	0.21	0.43
Methoxychlor		<0.020		0.020	ug/g	27-MAY-14	0.13	0.13	1.6	1.6
Surrogate: 2-Fluorobiphenyl		94.0		50-140	%	27-MAY-14				
Surrogate: d14-Terphenyl		88.8		50-140	%	27-MAY-14				
L1459559-9	BH3-1-2'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
							#1	#2	#3	#4

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-9	BH3-1-2'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Physical Tests										
Conductivity		0.244		0.0040	mS/cm	27-MAY-14	0.7	0.7	1.4	1.4
Saturated Paste Extractables										
SAR		0.29		0.10	SAR	26-MAY-14	5	5	12	12
Calcium (Ca)		38.7		0.10	mg/L	26-MAY-14				
Magnesium (Mg)		1.40		0.10	mg/L	26-MAY-14				
Sodium (Na)		6.71		0.10	mg/L	26-MAY-14				
L1459559-10	BH4-5-6'									
Sampled By:	ANDREW M. on 22-MAY-14									
Matrix:	SOIL									
Physical Tests										
% Moisture		19.2		0.10	%	24-MAY-14				
Volatile Organic Compounds										
Acetone		<0.50		0.50	ug/g	28-MAY-14	16	28	16	28
Benzene		<0.020		0.020	ug/g	28-MAY-14	0.21	0.17	0.32	0.4
Bromodichloromethane		<0.050		0.050	ug/g	28-MAY-14	1.5	1.9	1.5	1.9
Bromoform		<0.050		0.050	ug/g	28-MAY-14	0.27	0.26	0.61	1.7
Bromomethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
Carbon tetrachloride		<0.050		0.050	ug/g	28-MAY-14	0.05	0.12	0.21	0.71
Chlorobenzene		<0.050		0.050	ug/g	28-MAY-14	2.4	2.7	2.4	2.7
Dibromochloromethane		<0.050		0.050	ug/g	28-MAY-14	2.3	2.9	2.3	2.9
Chloroform		<0.050		0.050	ug/g	28-MAY-14	0.05	0.17	0.47	0.18
1,2-Dibromoethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,2-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	1.2	1.7	1.2	1.7
1,3-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	4.8	6	9.6	12
1,4-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	0.083	0.097	0.2	0.57
Dichlorodifluoromethane		<0.050		0.050	ug/g	28-MAY-14	16	25	16	25
1,1-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.47	0.6	0.47	0.6
1,2-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,1-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.064	0.48
cis-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	1.9	2.5	1.9	2.5
trans-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.084	0.75	1.3	2.5
1,3-Dichloropropene (cis & trans)		<0.042		0.042	ug/g	28-MAY-14	0.05	0.081	0.059	0.081
Methylene Chloride		<0.050		0.050	ug/g	28-MAY-14	0.1	0.96	1.6	2
1,2-Dichloropropane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.085	0.16	0.68
cis-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
trans-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
Ethyl Benzene		<0.050		0.050	ug/g	28-MAY-14	1.1	1.6	1.1	1.6
n-Hexane		<0.050		0.050	ug/g	28-MAY-14	2.8	34	46	88
Methyl Ethyl Ketone		<0.50		0.50	ug/g	28-MAY-14	16	44	70	88
Methyl Isobutyl Ketone		<0.50		0.50	ug/g	28-MAY-14	1.7	4.3	31	210
MTBE		<0.050		0.050	ug/g	28-MAY-14	0.75	1.4	1.6	2.3
Styrene		<0.050		0.050	ug/g	28-MAY-14	0.7	2.2	34	43
1,1,1,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.058	0.05	0.087	0.11
1,1,2,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.094

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-10	BH4-5-6'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Volatile Organic Compounds										
	Tetrachloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.28	2.3	1.9	2.5
	Toluene	<0.20		0.20	ug/g	28-MAY-14	2.3	6	6.4	9
	1,1,1-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.38	3.4	6.1	12
	1,1,2-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.11
	Trichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.061	0.52	0.55	0.61
	Trichlorofluoromethane	<0.050		0.050	ug/g	28-MAY-14	4	5.8	4	5.8
	Vinyl chloride	<0.020		0.020	ug/g	28-MAY-14	0.02	0.022	0.032	0.25
	o-Xylene	<0.020		0.020	ug/g	28-MAY-14				
	m+p-Xylenes	<0.030		0.030	ug/g	28-MAY-14				
	Xylenes (Total)	<0.050		0.050	ug/g	28-MAY-14	3.1	25	26	30
	Surrogate: 4-Bromofluorobenzene	90.3		70-130	%	28-MAY-14				
	Surrogate: 1,4-Difluorobenzene	98.1		70-130	%	28-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<5.0		5.0	ug/g	28-MAY-14	55	65	55	65
	F1-BTEX	<5.0		5.0	ug/g	30-MAY-14	55	65	55	65
	F2 (C10-C16)	<10		10	ug/g	30-MAY-14	98	150	230	250
	F3 (C16-C34)	<50		50	ug/g	30-MAY-14	300	1300	1700	2500
	F4 (C34-C50)	<50		50	ug/g	30-MAY-14	2800	5600	3300	6600
	Total Hydrocarbons (C6-C50)	<72		72	ug/g	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	92.6		50-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	90.4		60-140	%	28-MAY-14				
L1459559-11	BH4-1-2'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
	Conductivity	0.222		0.0040	mS/cm	27-MAY-14	0.7	0.7	1.4	1.4
	% Moisture	15.9		0.10	%	24-MAY-14				
Saturated Paste Extractables										
	SAR	0.24		0.10	SAR	26-MAY-14	5	5	12	12
	Calcium (Ca)	32.5		0.10	mg/L	26-MAY-14				
	Magnesium (Mg)	2.95		0.10	mg/L	26-MAY-14				
	Sodium (Na)	5.44		0.10	mg/L	26-MAY-14				
Organochlorine Pesticides										
	Aldrin	<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
	gamma-hexachlorocyclohexane	<0.010		0.010	ug/g	27-MAY-14	0.056	0.063	0.056	0.063
	a-chlordane	<0.020		0.020	ug/g	27-MAY-14				
	Chlordane (Total)	<0.028		0.028	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
	g-chlordane	<0.020		0.020	ug/g	27-MAY-14				
	op-DDD	<0.020		0.020	ug/g	27-MAY-14				
	pp-DDD	<0.020		0.020	ug/g	27-MAY-14				
	Total DDD	<0.028		0.028	ug/g	28-MAY-14	3.3	3.3	4.6	4.6
	o,p-DDE	<0.020		0.020	ug/g	27-MAY-14				
	pp-DDE	<0.020		0.020	ug/g	27-MAY-14				
	Total DDE	<0.028		0.028	ug/g	28-MAY-14	0.26	0.33	0.52	0.65

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#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

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#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-11	BH4-1-2'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Organochlorine Pesticides										
op-DDT		<0.020		0.020	ug/g	27-MAY-14				
pp-DDT		<0.020		0.020	ug/g	27-MAY-14				
Total DDT		<0.028		0.028	ug/g	28-MAY-14	0.078	0.078	1.4	1.4
Dieldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
Endosulfan I		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan II		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan (Total)		<0.028		0.028	ug/g	28-MAY-14	0.04	0.04	0.3	0.38
Endrin		<0.020		0.020	ug/g	27-MAY-14	0.04	0.04	0.04	0.04
Heptachlor		<0.020		0.020	ug/g	27-MAY-14	0.15	0.15	0.19	0.19
Heptachlor Epoxide		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.05	0.05
Hexachlorobenzene		<0.010		0.010	ug/g	27-MAY-14	0.52	0.52	0.66	0.66
Hexachlorobutadiene		<0.010		0.010	ug/g	27-MAY-14	0.012	0.014	0.031	0.095
Hexachloroethane		<0.010		0.010	ug/g	27-MAY-14	0.089	0.07	0.21	0.43
Methoxychlor		<0.020		0.020	ug/g	27-MAY-14	0.13	0.13	1.6	1.6
Surrogate: 2-Fluorobiphenyl		93.7		50-140	%	27-MAY-14				
Surrogate: d14-Terphenyl		90.1		50-140	%	27-MAY-14				
L1459559-12	BH5-0.5-1'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		18.4		0.10	%	24-MAY-14				
Organochlorine Pesticides										
Aldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
gamma-hexachlorocyclohexane		<0.010		0.010	ug/g	27-MAY-14	0.056	0.063	0.056	0.063
a-chlordane		<0.020		0.020	ug/g	27-MAY-14				
Chlordane (Total)		<0.028		0.028	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
g-chlordane		<0.020		0.020	ug/g	27-MAY-14				
op-DDD		<0.020		0.020	ug/g	27-MAY-14				
pp-DDD		<0.020		0.020	ug/g	27-MAY-14				
Total DDD		<0.028		0.028	ug/g	28-MAY-14	3.3	3.3	4.6	4.6
o,p-DDE		<0.020		0.020	ug/g	27-MAY-14				
pp-DDE		<0.020		0.020	ug/g	27-MAY-14				
Total DDE		<0.028		0.028	ug/g	28-MAY-14	0.26	0.33	0.52	0.65
op-DDT		<0.020		0.020	ug/g	27-MAY-14				
pp-DDT		<0.020		0.020	ug/g	27-MAY-14				
Total DDT		<0.028		0.028	ug/g	28-MAY-14	0.078	0.078	1.4	1.4
Dieldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
Endosulfan I		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan II		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan (Total)		<0.028		0.028	ug/g	28-MAY-14	0.04	0.04	0.3	0.38
Endrin		<0.020		0.020	ug/g	27-MAY-14	0.04	0.04	0.04	0.04
Heptachlor		<0.020		0.020	ug/g	27-MAY-14	0.15	0.15	0.19	0.19
Heptachlor Epoxide		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.05	0.05
Hexachlorobenzene		<0.010		0.010	ug/g	27-MAY-14	0.52	0.52	0.66	0.66
Hexachlorobutadiene		<0.010		0.010	ug/g	27-MAY-14	0.012	0.014	0.031	0.095

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-12	BH5-0.5-1'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Organochlorine Pesticides										
Hexachloroethane		<0.010		0.010	ug/g	27-MAY-14	0.089	0.07	0.21	0.43
Methoxychlor		<0.020		0.020	ug/g	27-MAY-14	0.13	0.13	1.6	1.6
Surrogate: 2-Fluorobiphenyl		93.9		50-140	%	27-MAY-14				
Surrogate: d14-Terphenyl		94.6		50-140	%	27-MAY-14				
L1459559-13	BH5- 1-2'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Metals										
Antimony (Sb)		<1.0		1.0	ug/g	26-MAY-14	7.5	7.5	40	50
Arsenic (As)		5.7		1.0	ug/g	26-MAY-14	11	11	18	18
Barium (Ba)		76.3		1.0	ug/g	26-MAY-14	390	390	670	670
Beryllium (Be)		0.66		0.50	ug/g	26-MAY-14	4	5	8	10
Boron (B)		9.5		5.0	ug/g	26-MAY-14	120	120	120	120
Cadmium (Cd)		<0.50		0.50	ug/g	26-MAY-14	1	1	1.9	1.9
Chromium (Cr)		23.0		1.0	ug/g	26-MAY-14	160	160	160	160
Cobalt (Co)		10.0		1.0	ug/g	26-MAY-14	22	22	80	100
Copper (Cu)		24.7		1.0	ug/g	26-MAY-14	140	180	230	300
Lead (Pb)		19.5		1.0	ug/g	26-MAY-14	45	45	120	120
Molybdenum (Mo)		<1.0		1.0	ug/g	26-MAY-14	6.9	6.9	40	40
Nickel (Ni)		22.4		1.0	ug/g	26-MAY-14	100	130	270	340
Selenium (Se)		<1.0		1.0	ug/g	26-MAY-14	2.4	2.4	5.5	5.5
Silver (Ag)		<0.20		0.20	ug/g	26-MAY-14	20	25	40	50
Thallium (Tl)		<0.50		0.50	ug/g	26-MAY-14	1	1	3.3	3.3
Uranium (U)		<1.0		1.0	ug/g	26-MAY-14	23	23	33	33
Vanadium (V)		31.3		1.0	ug/g	26-MAY-14	86	86	86	86
Zinc (Zn)		74.9		5.0	ug/g	26-MAY-14	340	340	340	340
L1459559-14	BH6-7-8'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		14.8		0.10	%	24-MAY-14				
Volatile Organic Compounds										
Acetone		<0.50		0.50	ug/g	28-MAY-14	16	28	16	28
Benzene		<0.020		0.020	ug/g	28-MAY-14	0.21	0.17	0.32	0.4
Bromodichloromethane		<0.050		0.050	ug/g	28-MAY-14	1.5	1.9	1.5	1.9
Bromoform		<0.050		0.050	ug/g	28-MAY-14	0.27	0.26	0.61	1.7
Bromomethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
Carbon tetrachloride		<0.050		0.050	ug/g	28-MAY-14	0.05	0.12	0.21	0.71
Chlorobenzene		<0.050		0.050	ug/g	28-MAY-14	2.4	2.7	2.4	2.7
Dibromochloromethane		<0.050		0.050	ug/g	28-MAY-14	2.3	2.9	2.3	2.9
Chloroform		<0.050		0.050	ug/g	28-MAY-14	0.05	0.17	0.47	0.18
1,2-Dibromoethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,2-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	1.2	1.7	1.2	1.7

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-14	BH6-7-8'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Volatile Organic Compounds										
	1,3-Dichlorobenzene	<0.050		0.050	ug/g	28-MAY-14	4.8	6	9.6	12
	1,4-Dichlorobenzene	<0.050		0.050	ug/g	28-MAY-14	0.083	0.097	0.2	0.57
	Dichlorodifluoromethane	<0.050		0.050	ug/g	28-MAY-14	16	25	16	25
	1,1-Dichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.47	0.6	0.47	0.6
	1,2-Dichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
	1,1-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.064	0.48
	cis-1,2-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	1.9	2.5	1.9	2.5
	trans-1,2-Dichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.084	0.75	1.3	2.5
	1,3-Dichloropropene (cis & trans)	<0.042		0.042	ug/g	28-MAY-14	0.05	0.081	0.059	0.081
	Methylene Chloride	<0.050		0.050	ug/g	28-MAY-14	0.1	0.96	1.6	2
	1,2-Dichloropropane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.085	0.16	0.68
	cis-1,3-Dichloropropene	<0.030		0.030	ug/g	28-MAY-14				
	trans-1,3-Dichloropropene	<0.030		0.030	ug/g	28-MAY-14				
	Ethyl Benzene	<0.050		0.050	ug/g	28-MAY-14	1.1	1.6	1.1	1.6
	n-Hexane	<0.050		0.050	ug/g	28-MAY-14	2.8	34	46	88
	Methyl Ethyl Ketone	<0.50		0.50	ug/g	28-MAY-14	16	44	70	88
	Methyl Isobutyl Ketone	<0.50		0.50	ug/g	28-MAY-14	1.7	4.3	31	210
	MTBE	<0.050		0.050	ug/g	28-MAY-14	0.75	1.4	1.6	2.3
	Styrene	<0.050		0.050	ug/g	28-MAY-14	0.7	2.2	34	43
	1,1,1,2-Tetrachloroethane	<0.050		0.050	ug/g	28-MAY-14	0.058	0.05	0.087	0.11
	1,1,2,2-Tetrachloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.094
	Tetrachloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.28	2.3	1.9	2.5
	Toluene	<0.20		0.20	ug/g	28-MAY-14	2.3	6	6.4	9
	1,1,1-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.38	3.4	6.1	12
	1,1,2-Trichloroethane	<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.11
	Trichloroethylene	<0.050		0.050	ug/g	28-MAY-14	0.061	0.52	0.55	0.61
	Trichlorofluoromethane	<0.050		0.050	ug/g	28-MAY-14	4	5.8	4	5.8
	Vinyl chloride	<0.020		0.020	ug/g	28-MAY-14	0.02	0.022	0.032	0.25
	o-Xylene	<0.020		0.020	ug/g	28-MAY-14				
	m+p-Xylenes	<0.030		0.030	ug/g	28-MAY-14				
	Xylenes (Total)	<0.050		0.050	ug/g	28-MAY-14	3.1	25	26	30
	Surrogate: 4-Bromofluorobenzene	90.2		70-130	%	28-MAY-14				
	Surrogate: 1,4-Difluorobenzene	98.5		70-130	%	28-MAY-14				
Hydrocarbons										
	F1 (C6-C10)	<5.0		5.0	ug/g	28-MAY-14	55	65	55	65
	F1-BTEX	<5.0		5.0	ug/g	30-MAY-14	55	65	55	65
	F2 (C10-C16)	20		10	ug/g	30-MAY-14	98	150	230	250
	F3 (C16-C34)	198		50	ug/g	30-MAY-14	300	1300	1700	2500
	F4 (C34-C50)	207		50	ug/g	30-MAY-14	2800	5600	3300	6600
	Total Hydrocarbons (C6-C50)	425		72	ug/g	30-MAY-14				
	Chrom. to baseline at nC50	YES			No Unit	30-MAY-14				
	Surrogate: 2-Bromobenzotrifluoride	87.9		50-140	%	30-MAY-14				
	Surrogate: 3,4-Dichlorotoluene	92.7		60-140	%	28-MAY-14				

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



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Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-15	BH7-8-10'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		20.3		0.10	%	24-MAY-14				
Volatile Organic Compounds										
Acetone		<0.50		0.50	ug/g	28-MAY-14	16	28	16	28
Benzene		<0.020		0.020	ug/g	28-MAY-14	0.21	0.17	0.32	0.4
Bromodichloromethane		<0.050		0.050	ug/g	28-MAY-14	1.5	1.9	1.5	1.9
Bromoform		<0.050		0.050	ug/g	28-MAY-14	0.27	0.26	0.61	1.7
Bromomethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
Carbon tetrachloride		<0.050		0.050	ug/g	28-MAY-14	0.05	0.12	0.21	0.71
Chlorobenzene		<0.050		0.050	ug/g	28-MAY-14	2.4	2.7	2.4	2.7
Dibromochloromethane		<0.050		0.050	ug/g	28-MAY-14	2.3	2.9	2.3	2.9
Chloroform		<0.050		0.050	ug/g	28-MAY-14	0.05	0.17	0.47	0.18
1,2-Dibromoethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,2-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	1.2	1.7	1.2	1.7
1,3-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	4.8	6	9.6	12
1,4-Dichlorobenzene		<0.050		0.050	ug/g	28-MAY-14	0.083	0.097	0.2	0.57
Dichlorodifluoromethane		<0.050		0.050	ug/g	28-MAY-14	16	25	16	25
1,1-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.47	0.6	0.47	0.6
1,2-Dichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
1,1-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.064	0.48
cis-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	1.9	2.5	1.9	2.5
trans-1,2-Dichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.084	0.75	1.3	2.5
1,3-Dichloropropene (cis & trans)		<0.042		0.042	ug/g	28-MAY-14	0.05	0.081	0.059	0.081
Methylene Chloride		<0.050		0.050	ug/g	28-MAY-14	0.1	0.96	1.6	2
1,2-Dichloropropane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.085	0.16	0.68
cis-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
trans-1,3-Dichloropropene		<0.030		0.030	ug/g	28-MAY-14				
Ethyl Benzene		<0.050		0.050	ug/g	28-MAY-14	1.1	1.6	1.1	1.6
n-Hexane		<0.050		0.050	ug/g	28-MAY-14	2.8	34	46	88
Methyl Ethyl Ketone		<0.50		0.50	ug/g	28-MAY-14	16	44	70	88
Methyl Isobutyl Ketone		<0.50		0.50	ug/g	28-MAY-14	1.7	4.3	31	210
MTBE		<0.050		0.050	ug/g	28-MAY-14	0.75	1.4	1.6	2.3
Styrene		<0.050		0.050	ug/g	28-MAY-14	0.7	2.2	34	43
1,1,1,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.058	0.05	0.087	0.11
1,1,2,2-Tetrachloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.094
Tetrachloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.28	2.3	1.9	2.5
Toluene		<0.20		0.20	ug/g	28-MAY-14	2.3	6	6.4	9
1,1,1-Trichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.38	3.4	6.1	12
1,1,2-Trichloroethane		<0.050		0.050	ug/g	28-MAY-14	0.05	0.05	0.05	0.11
Trichloroethylene		<0.050		0.050	ug/g	28-MAY-14	0.061	0.52	0.55	0.61
Trichlorofluoromethane		<0.050		0.050	ug/g	28-MAY-14	4	5.8	4	5.8
Vinyl chloride		<0.020		0.020	ug/g	28-MAY-14	0.02	0.022	0.032	0.25
o-Xylene		<0.020		0.020	ug/g	28-MAY-14				
m+p-Xylenes		<0.030		0.030	ug/g	28-MAY-14				
Xylenes (Total)		<0.050		0.050	ug/g	28-MAY-14	3.1	25	26	30
Surrogate: 4-Bromofluorobenzene		91.6		70-130	%	28-MAY-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

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Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

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#4: T2-Soil-Ind/Com/Commu Property Use (Fine)



ANALYTICAL GUIDELINE REPORT

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5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1459559-15	BH7-8-10'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Volatile Organic Compounds										
Surrogate: 1,4-Difluorobenzene		98.1		70-130	%	28-MAY-14				
Hydrocarbons										
F1 (C6-C10)		<5.0		5.0	ug/g	28-MAY-14	55	65	55	65
F1-BTEX		<5.0		5.0	ug/g	30-MAY-14	55	65	55	65
F2 (C10-C16)		<10		10	ug/g	30-MAY-14	98	150	230	250
F3 (C16-C34)		<50		50	ug/g	30-MAY-14	300	1300	1700	2500
F4 (C34-C50)		<50		50	ug/g	30-MAY-14	2800	5600	3300	6600
Total Hydrocarbons (C6-C50)		<72		72	ug/g	30-MAY-14				
Chrom. to baseline at nC50		YES			No Unit	30-MAY-14				
Surrogate: 2-Bromobenzotrifluoride		80.6		50-140	%	30-MAY-14				
Surrogate: 3,4-Dichlorotoluene		96.9		60-140	%	28-MAY-14				
L1459559-16	BH7-0.5-2'									
Sampled By: ANDREW M. on 22-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		17.3		0.10	%	24-MAY-14				
Organochlorine Pesticides										
Aldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
gamma-hexachlorocyclohexane		<0.010		0.010	ug/g	27-MAY-14	0.056	0.063	0.056	0.063
a-chlordane		<0.020		0.020	ug/g	27-MAY-14				
Chlordane (Total)		<0.028		0.028	ug/g	28-MAY-14	0.05	0.05	0.05	0.05
g-chlordane		<0.020		0.020	ug/g	27-MAY-14				
op-DDD		<0.020		0.020	ug/g	27-MAY-14				
pp-DDD		<0.020		0.020	ug/g	27-MAY-14				
Total DDD		<0.028		0.028	ug/g	28-MAY-14	3.3	3.3	4.6	4.6
o,p-DDE		<0.020		0.020	ug/g	27-MAY-14				
pp-DDE		<0.020		0.020	ug/g	27-MAY-14				
Total DDE		<0.028		0.028	ug/g	28-MAY-14	0.26	0.33	0.52	0.65
op-DDT		<0.020		0.020	ug/g	27-MAY-14				
pp-DDT		<0.020		0.020	ug/g	27-MAY-14				
Total DDT		<0.028		0.028	ug/g	28-MAY-14	0.078	0.078	1.4	1.4
Dieldrin		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.088	0.11
Endosulfan I		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan II		<0.020		0.020	ug/g	27-MAY-14				
Endosulfan (Total)		<0.028		0.028	ug/g	28-MAY-14	0.04	0.04	0.3	0.38
Endrin		<0.020		0.020	ug/g	27-MAY-14	0.04	0.04	0.04	0.04
Heptachlor		<0.020		0.020	ug/g	27-MAY-14	0.15	0.15	0.19	0.19
Heptachlor Epoxide		<0.020		0.020	ug/g	27-MAY-14	0.05	0.05	0.05	0.05
Hexachlorobenzene		<0.010		0.010	ug/g	27-MAY-14	0.52	0.52	0.66	0.66
Hexachlorobutadiene		<0.010		0.010	ug/g	27-MAY-14	0.012	0.014	0.031	0.095
Hexachloroethane		<0.010		0.010	ug/g	27-MAY-14	0.089	0.07	0.21	0.43
Methoxychlor		<0.020		0.020	ug/g	27-MAY-14	0.13	0.13	1.6	1.6
Surrogate: 2-Fluorobiphenyl		92.3		50-140	%	27-MAY-14				
Surrogate: d14-Terphenyl		89.3		50-140	%	27-MAY-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-All-Soil-Categories

#1: T2-Soil-Agricultural or Other Property Use (Coarse)

#2: T2-Soil-Agricultural or Other Property Use (Fine)

#3: T2-Soil-Ind/Com/Commu Property Use (Coarse)

#4: T2-Soil-Ind/Com/Commu Property Use (Fine)

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects.

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
CHLORDANE-T-CALC-WT	Soil	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Soil	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
EC-R511-WT	Soil	Conductivity-O.Reg 153/04 (July 2011)	MOEE E3138
A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).			
ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Soil	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC DEC-2000 - PUB# 1310-L
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

- Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
- 1. All extraction and analysis holding times were met.
 - 2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
 - 3. Linearity of gasoline response within 15% throughout the calibration range.

- Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
- 1. All extraction and analysis holding times were met.
 - 2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
 - 3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
 - 4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

Reference Information

F1-F4-511-CALC-WT Soil F1-F4 Hydrocarbon Calculated CCME CWS-PHC DEC-2000 - PUB# 1310-S

Parameters

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-511-WT Water F1-O.Reg 153/04 (July 2011) E3398/CCME TIER 1-HS

Fraction F1 is determined by analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F1-HS-511-WT Soil F1-O.Reg 153/04 (July 2011) E3398/CCME TIER 1-HS

Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT Water F2-F4-O.Reg 153/04 (July 2011) MOE DECPH-E3398/CCME TIER 1

Fractions F2, F3 and F4 are determined by liquid/liquid extraction with a solvent. The solvent recovered from the extracted sample is dried and treated to remove polar material. The extract is then analyzed by GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT Soil F2-F4-O.Reg 153/04 (July 2011) MOE DECPH-E3398/CCME TIER 1

Fractions F2, F3 and F4 are determined by extracting a soil sample with a solvent mix. The solvent recovered from the extracted soil sample is dried and treated to remove polar material. The extract is analyzed by GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

MET-D-UG/L-MS-WT Water Diss. Metals in Water by ICPMS EPA 200.8
(ug/L)

The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

MET-UG/G-CCMS-WT Soil Metal Scan Collision Cell ICPMS EPA 200.2/6020A

Sample is vigorously digested with nitric and hydrochloric acid. Analysis is conducted by ICP/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

MOISTURE-WT Soil % Moisture Gravimetric: Oven Dried

Reference Information

PEST-OC-511-WT Water OC Pesticides-O. Reg 153/04 SW846 8270 (511)
(July 2011)

Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PEST-OC-511-WT Soil OC Pesticides-O. Reg 153/04 SW846 8270 (511)
(July 2011)

Soil sample is extracted in a solvent, after extraction a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PH-R511-WT Soil pH-O.Reg 153/04 (July 2011) MOEE E3137A

A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

PSA-75UM-SIEVE-WT Soil % Particles > 75um ASTM D422-63-HYDROMETER/SIEVE
(Coarse/Fine)

An air-dried sample is reduced to < 2 mm size and mixed with a dispersing agent (Calgon solution). The sample is washed through a 200 mesh (75 µm) sieve. The retained mass of sample is used to determine % sand fraction. If the percentage of sand is >50%, the soil is considered to be coarse textured soil. If the percentage of sand is <50%, the soil is considered to be fine textured.

Reference: ASTM D422-63

SAR-R511-WT Soil SAR-O.Reg 153/04 (July 2011) SW846 6010C

A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

VOC-1,3-DCP-CALC-WT Water Regulation 153 VOCs SW8260B/SW8270C

VOC-1,3-DCP-CALC-WT Soil Regulation 153 VOCs SW8260B/SW8270C

VOC-511-HS-WT Water VOC by GCMS HS O.Reg SW846 8260
153/04 (July 2011)

Liquid samples are analyzed by headspace GC/MSD.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

VOC-511-HS-WT Soil VOC-O.Reg 153/04 (July 2011) SW846 8260 (511)

Soil and sediment samples are extracted in methanol and analyzed by headspace-GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

XYLENES-SUM-CALC-WT Water Sum of Xylene Isomer CALCULATION
Concentrations

Total xylenes represents the sum of o-xylene and m&p-xylene.

XYLENES-SUM-CALC-WT Soil Sum of Xylene Isomer CALCULATION
Concentrations

Total xylenes represents the sum of o-xylene and m&p-xylene.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:

155678

155679

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Reference Information

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.

C of C # 00000

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ALTECH ENVIRONMENTAL
ATTN: ANDREW MUTRIE
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 29-MAY-14
Report Date: 03-JUN-14 14:24 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L1462166
Project P.O. #: NOT SUBMITTED
Job Reference: 5140-14
C of C Numbers: 155683
Legal Site Desc:

Mathumai Ganeshkumar
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1462166-1	MWD							
Sampled By: ANDREW MUTRIE on 29-MAY-14								
Matrix: WATER								
Dissolved Metals								
Dissolved Metals Filtration Location		LAB					30-MAY-14	R2848439
Antimony (Sb)-Dissolved		<0.50		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Arsenic (As)-Dissolved		<1.0		1.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Barium (Ba)-Dissolved		436		2.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Beryllium (Be)-Dissolved		<0.50		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Boron (B)-Dissolved		71		10	ug/L	30-MAY-14	30-MAY-14	R2848871
Cadmium (Cd)-Dissolved		<0.10		0.10	ug/L	30-MAY-14	30-MAY-14	R2848871
Chromium (Cr)-Dissolved		<0.50		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Cobalt (Co)-Dissolved		2.75		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Copper (Cu)-Dissolved		<1.0		1.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Lead (Pb)-Dissolved		<1.0		1.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Molybdenum (Mo)-Dissolved		1.56		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Nickel (Ni)-Dissolved		6.9		1.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Selenium (Se)-Dissolved		<5.0		5.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Silver (Ag)-Dissolved		<0.10		0.10	ug/L	30-MAY-14	30-MAY-14	R2848871
Sodium (Na)-Dissolved		533000	DLM	5000	ug/L	30-MAY-14	30-MAY-14	R2848871
Thallium (Tl)-Dissolved		<0.30		0.30	ug/L	30-MAY-14	30-MAY-14	R2848871
Uranium (U)-Dissolved		2.8		2.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Vanadium (V)-Dissolved		<0.50		0.50	ug/L	30-MAY-14	30-MAY-14	R2848871
Zinc (Zn)-Dissolved		13.0		3.0	ug/L	30-MAY-14	30-MAY-14	R2848871
Volatile Organic Compounds								
Acetone		<30		30	ug/L		30-MAY-14	R2848752
Benzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
Bromodichloromethane		<2.0		2.0	ug/L		30-MAY-14	R2848752
Bromoform		<5.0		5.0	ug/L		30-MAY-14	R2848752
Bromomethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
Carbon tetrachloride		<0.20		0.20	ug/L		30-MAY-14	R2848752
Chlorobenzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
Dibromochloromethane		<2.0		2.0	ug/L		30-MAY-14	R2848752
Chloroform		<1.0		1.0	ug/L		30-MAY-14	R2848752
1,2-Dibromoethane		<0.20		0.20	ug/L		30-MAY-14	R2848752
1,2-Dichlorobenzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,3-Dichlorobenzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,4-Dichlorobenzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
Dichlorodifluoromethane		<2.0		2.0	ug/L		30-MAY-14	R2848752
1,1-Dichloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,2-Dichloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,1-Dichloroethylene		<0.50		0.50	ug/L		30-MAY-14	R2848752
cis-1,2-Dichloroethylene		<0.50		0.50	ug/L		30-MAY-14	R2848752
trans-1,2-Dichloroethylene		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,3-Dichloropropene (cis & trans)		<0.50		0.50	ug/L		30-MAY-14	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters		Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1462166-1 MWD Sampled By: ANDREW MUTRIE on 29-MAY-14 Matrix: WATER								
Volatile Organic Compounds								
Methylene Chloride		<5.0		5.0	ug/L		30-MAY-14	R2848752
1,2-Dichloropropane		<0.50		0.50	ug/L		30-MAY-14	R2848752
cis-1,3-Dichloropropene		<0.30		0.30	ug/L		30-MAY-14	R2848752
trans-1,3-Dichloropropene		<0.30		0.30	ug/L		30-MAY-14	R2848752
Ethyl Benzene		<0.50		0.50	ug/L		30-MAY-14	R2848752
n-Hexane		<0.50		0.50	ug/L		30-MAY-14	R2848752
Methyl Ethyl Ketone		<20		20	ug/L		30-MAY-14	R2848752
Methyl Isobutyl Ketone		<20		20	ug/L		30-MAY-14	R2848752
MTBE		<2.0		2.0	ug/L		30-MAY-14	R2848752
Styrene		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,1,1,2-Tetrachloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,1,2,2-Tetrachloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
Tetrachloroethylene		<0.50		0.50	ug/L		30-MAY-14	R2848752
Toluene		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,1,1-Trichloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
1,1,2-Trichloroethane		<0.50		0.50	ug/L		30-MAY-14	R2848752
Trichloroethylene		<0.50		0.50	ug/L		30-MAY-14	R2848752
Trichlorofluoromethane		<5.0		5.0	ug/L		30-MAY-14	R2848752
Vinyl chloride		<0.50		0.50	ug/L		30-MAY-14	R2848752
o-Xylene		<0.30		0.30	ug/L		30-MAY-14	R2848752
m+p-Xylenes		<0.40		0.40	ug/L		30-MAY-14	R2848752
Xylenes (Total)		<0.50		0.50	ug/L		30-MAY-14	
Surrogate: 4-Bromofluorobenzene		87.2		70-130	%		30-MAY-14	R2848752
Surrogate: 1,4-Difluorobenzene		99.9		70-130	%		30-MAY-14	R2848752
Hydrocarbons								
F1 (C6-C10)		<25		25	ug/L		30-MAY-14	R2848752
F1-BTEX		<25		25	ug/L		01-JUN-14	
F2 (C10-C16)		<100		100	ug/L	01-JUN-14	01-JUN-14	R2849624
F3 (C16-C34)		<250		250	ug/L	01-JUN-14	01-JUN-14	R2849624
F4 (C34-C50)		<250		250	ug/L	01-JUN-14	01-JUN-14	R2849624
Total Hydrocarbons (C6-C50)		<370		370	ug/L		01-JUN-14	
Chrom. to baseline at nC50		YES				01-JUN-14	01-JUN-14	R2849624
Surrogate: 2-Bromobenzotrifluoride		62.3		60-140	%	01-JUN-14	01-JUN-14	R2849624
Surrogate: 3,4-Dichlorotoluene		96.7		60-140	%		30-MAY-14	R2848752
L1462166-2 MWE Sampled By: ANDREW MUTRIE on 29-MAY-14 Matrix: WATER								
Organochlorine Pesticides								
Aldrin		<0.020	DLIV	0.020	ug/L	30-MAY-14	03-JUN-14	R2851187
gamma-hexachlorocyclohexane		<0.020	DLIV	0.020	ug/L	30-MAY-14	03-JUN-14	R2851187
a-chlordane		<0.080	DLIV	0.080	ug/L	30-MAY-14	03-JUN-14	R2851187
Chlordane (Total)		<0.11		0.11	ug/L		03-JUN-14	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Laboratory Control Sample Duplicate	Aldrin	RRQC	L1462166-2
Comments: LCS duplicate recovery is outside of control limits. Associated sample results have not been affected.			

Qualifiers for Sample Submission Listed:

Qualifier	Description
CINT	Cooling initiated. Samples were packaged with ice or ice packs upon receipt.

Sample Parameter Qualifier key listed:

Qualifier	Description
DLIV	Detection Limit Adjusted: Lower Initial Volume
DLM	Detection Limit Adjusted due to sample matrix effects.
RRQC	Refer to report remarks for information regarding this QC result.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
CHLORDANE-T-CALC-WT	Water	Chlordane Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
DDD-DDE-DDT-CALC-WT	Water	DDD, DDE, DDT sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
ENDOSULFAN-T-CALC-WT	Water	Endosulfan Total sums	CALCULATION
Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.			
F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated	CCME CWS-PHC DEC-2000 - PUB# 1310-L
Analytical methods used for analysis of Contaminants Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.			
In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.			
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.			
In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.			
Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.			
3. Linearity of gasoline response within 15% throughout the calibration range.			
Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:			
1. All extraction and analysis holding times were met.			
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.			
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.			
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.			
F1-HS-511-WT	Water	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
Fraction F1 is determined by analyzing by headspace-GC/FID.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
F2-F4-511-WT	Water	F2-F4-O.Reg 153/04 (July 2011)	MOE DECPH-E3398/CCME TIER 1
Fractions F2, F3 and F4 are determined by liquid/liquid extraction with a solvent. The solvent recovered from the extracted sample is dried and treated to remove polar material. The extract is then analyzed by GC/FID.			
Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
MET-D-UG/L-MS-WT	Water	Diss. Metals in Water by ICPMS	EPA 200.8
The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.			

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

PEST-OC-511-WT	Water	OC Pesticides-O. Reg 153/04 (July 1, 2011)	SW846 8270 (511)
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Aqueous sample is extracted by liquid/liquid extraction with a solvent mix. After extraction, a number of clean up techniques may be applied, depending on the sample matrix and analyzed by GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

VOC-1,3-DCP-CALC-WT	Water	Regulation 153 VOCs	SW8260B/SW8270C
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VOC-511-HS-WT	Water	VOC by GCMS HS O.Reg 153/04 (July 1, 2011)	SW846 8260
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Liquid samples are analyzed by headspace GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

XYLENES-SUM-CALC-WT	Water	Sum of Xylene Isomer Concentrations	CALCULATION
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Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

155683

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.

< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L1462166

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT								
Water								
Batch	R2848752							
WG1881194-1	CVS							
F1 (C6-C10)			83.1		%		80-120	30-MAY-14
WG1881194-4	DUP	WG1881194-3						
F1 (C6-C10)		<25	<25	RPD-NA	ug/L	N/A	30	30-MAY-14
WG1881194-2	MB							
F1 (C6-C10)			<25		ug/L		25	30-MAY-14
Surrogate: 3,4-Dichlorotoluene			103.9		%		60-140	30-MAY-14
WG1881194-5	MS	WG1881194-3						
F1 (C6-C10)			76.6		%		60-140	30-MAY-14
F2-F4-511-WT								
Water								
Batch	R2849624							
WG1883068-1	CVS							
F2 (C10-C16)			110.2		%		80-120	01-JUN-14
F3 (C16-C34)			100.1		%		80-120	01-JUN-14
F4 (C34-C50)			99.8		%		80-120	01-JUN-14
WG1882092-2	LCS							
F2 (C10-C16)			91.0		%		65-135	01-JUN-14
F3 (C16-C34)			93.9		%		65-135	01-JUN-14
F4 (C34-C50)			94.7		%		65-135	01-JUN-14
WG1882092-3	LCSD	WG1882092-2						
F2 (C10-C16)		91.0	90.8		%	0.2	50	01-JUN-14
F3 (C16-C34)		93.9	92.5		%	1.5	50	01-JUN-14
F4 (C34-C50)		94.7	93.7		%	1.1	50	01-JUN-14
WG1882092-1	MB							
F2 (C10-C16)			<100		ug/L		100	01-JUN-14
F3 (C16-C34)			<250		ug/L		250	01-JUN-14
F4 (C34-C50)			<250		ug/L		250	01-JUN-14
Surrogate: 2-Bromobenzotrifluoride			73.6		%		60-140	01-JUN-14
MET-D-UG/L-MS-WT								
Water								
Batch	R2848871							
WG1882075-1	CVS							
Antimony (Sb)-Dissolved			95.3		%		80-120	30-MAY-14
Arsenic (As)-Dissolved			95.4		%		80-120	30-MAY-14
Barium (Ba)-Dissolved			93.5		%		80-120	30-MAY-14
Beryllium (Be)-Dissolved			94.0		%		80-120	30-MAY-14
Boron (B)-Dissolved			90.8		%		80-120	30-MAY-14



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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R2848871							
WG1882075-1	CVS							
Cadmium (Cd)-Dissolved			94.4		%		80-120	30-MAY-14
Chromium (Cr)-Dissolved			97.0		%		80-120	30-MAY-14
Cobalt (Co)-Dissolved			97.4		%		80-120	30-MAY-14
Copper (Cu)-Dissolved			96.1		%		80-120	30-MAY-14
Lead (Pb)-Dissolved			100.2		%		80-120	30-MAY-14
Molybdenum (Mo)-Dissolved			91.0		%		80-120	30-MAY-14
Nickel (Ni)-Dissolved			96.3		%		80-120	30-MAY-14
Selenium (Se)-Dissolved			98.4		%		80-120	30-MAY-14
Silver (Ag)-Dissolved			100.5		%		80-120	30-MAY-14
Sodium (Na)-Dissolved			101.8		%		80-120	30-MAY-14
Thallium (Tl)-Dissolved			103.3		%		80-120	30-MAY-14
Uranium (U)-Dissolved			99.9		%		80-120	30-MAY-14
Vanadium (V)-Dissolved			96.6		%		80-120	30-MAY-14
Zinc (Zn)-Dissolved			92.5		%		80-120	30-MAY-14
WG1882075-3	CVS							
Antimony (Sb)-Dissolved			96.1		%		80-120	02-JUN-14
Arsenic (As)-Dissolved			98.9		%		80-120	02-JUN-14
Barium (Ba)-Dissolved			96.2		%		80-120	02-JUN-14
Beryllium (Be)-Dissolved			107.0		%		80-120	02-JUN-14
Boron (B)-Dissolved			104.7		%		80-120	02-JUN-14
Cadmium (Cd)-Dissolved			100.6		%		80-120	02-JUN-14
Chromium (Cr)-Dissolved			96.8		%		80-120	02-JUN-14
Cobalt (Co)-Dissolved			99.5		%		80-120	02-JUN-14
Copper (Cu)-Dissolved			99.2		%		80-120	02-JUN-14
Lead (Pb)-Dissolved			103.1		%		80-120	02-JUN-14
Molybdenum (Mo)-Dissolved			97.3		%		80-120	02-JUN-14
Nickel (Ni)-Dissolved			99.2		%		80-120	02-JUN-14
Selenium (Se)-Dissolved			98.8		%		80-120	02-JUN-14
Silver (Ag)-Dissolved			100.8		%		80-120	02-JUN-14
Sodium (Na)-Dissolved			101.4		%		80-120	02-JUN-14
Thallium (Tl)-Dissolved			102.6		%		80-120	02-JUN-14
Uranium (U)-Dissolved			103.2		%		80-120	02-JUN-14
Vanadium (V)-Dissolved			99.2		%		80-120	02-JUN-14
Zinc (Zn)-Dissolved			92.2		%		80-120	02-JUN-14

Quality Control Report

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R2848871							
WG1882009-4 DUP		WG1882009-3						
Antimony (Sb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-MAY-14
Arsenic (As)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	30-MAY-14
Barium (Ba)-Dissolved		11.1	10.9		ug/L	1.5	20	30-MAY-14
Beryllium (Be)-Dissolved		<0.40	<0.40	RPD-NA	ug/L	N/A	20	30-MAY-14
Boron (B)-Dissolved		<10	<10	RPD-NA	ug/L	N/A	20	30-MAY-14
Cadmium (Cd)-Dissolved		<0.090	<0.090	RPD-NA	ug/L	N/A	20	30-MAY-14
Chromium (Cr)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-MAY-14
Cobalt (Co)-Dissolved		<0.30	<0.30	RPD-NA	ug/L	N/A	20	30-MAY-14
Copper (Cu)-Dissolved		1.2	1.2		ug/L	2.4	20	30-MAY-14
Lead (Pb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-MAY-14
Molybdenum (Mo)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-MAY-14
Nickel (Ni)-Dissolved		<1.0	1.0	RPD-NA	ug/L	N/A	20	30-MAY-14
Selenium (Se)-Dissolved		<0.40	<0.40	RPD-NA	ug/L	N/A	20	30-MAY-14
Silver (Ag)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	30-MAY-14
Sodium (Na)-Dissolved		1070	1090		ug/L	1.3	20	30-MAY-14
Thallium (Tl)-Dissolved		<0.20	<0.20	RPD-NA	ug/L	N/A	20	30-MAY-14
Uranium (U)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	30-MAY-14
Vanadium (V)-Dissolved		0.65	0.71		ug/L	7.8	20	30-MAY-14
Zinc (Zn)-Dissolved		3.0	3.6		ug/L	17	20	30-MAY-14
WG1882009-2 LCS								
Antimony (Sb)-Dissolved			93.4		%		80-120	30-MAY-14
Arsenic (As)-Dissolved			93.4		%		80-120	30-MAY-14
Barium (Ba)-Dissolved			90.7		%		80-120	30-MAY-14
Beryllium (Be)-Dissolved			90.5		%		80-120	30-MAY-14
Boron (B)-Dissolved			85.4		%		80-120	30-MAY-14
Cadmium (Cd)-Dissolved			91.4		%		80-120	30-MAY-14
Chromium (Cr)-Dissolved			92.8		%		80-120	30-MAY-14
Cobalt (Co)-Dissolved			92.7		%		80-120	30-MAY-14
Copper (Cu)-Dissolved			93.3		%		80-120	30-MAY-14
Lead (Pb)-Dissolved			94.9		%		80-120	30-MAY-14
Molybdenum (Mo)-Dissolved			88.8		%		80-120	30-MAY-14
Nickel (Ni)-Dissolved			92.6		%		80-120	30-MAY-14
Selenium (Se)-Dissolved			96.2		%		80-120	30-MAY-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R2848871							
WG1882009-2	LCS							
Silver (Ag)-Dissolved			96.4		%		80-120	30-MAY-14
Sodium (Na)-Dissolved			95.0		%		80-120	30-MAY-14
Thallium (Tl)-Dissolved			97.8		%		80-120	30-MAY-14
Uranium (U)-Dissolved			95.4		%		80-120	30-MAY-14
Vanadium (V)-Dissolved			93.0		%		80-120	30-MAY-14
Zinc (Zn)-Dissolved			94.7		%		80-120	30-MAY-14
WG1882009-1	MB							
Antimony (Sb)-Dissolved			<0.50		ug/L		0.5	30-MAY-14
Arsenic (As)-Dissolved			<1.0		ug/L		1	30-MAY-14
Barium (Ba)-Dissolved			<2.0		ug/L		2	30-MAY-14
Beryllium (Be)-Dissolved			<0.40		ug/L		0.4	30-MAY-14
Boron (B)-Dissolved			<10		ug/L		10	30-MAY-14
Cadmium (Cd)-Dissolved			<0.090		ug/L		0.09	30-MAY-14
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	30-MAY-14
Cobalt (Co)-Dissolved			<0.30		ug/L		0.3	30-MAY-14
Copper (Cu)-Dissolved			<1.0		ug/L		1	30-MAY-14
Lead (Pb)-Dissolved			<0.50		ug/L		0.5	30-MAY-14
Molybdenum (Mo)-Dissolved			<0.50		ug/L		0.5	30-MAY-14
Nickel (Ni)-Dissolved			<1.0		ug/L		1	30-MAY-14
Selenium (Se)-Dissolved			<0.40		ug/L		0.4	30-MAY-14
Silver (Ag)-Dissolved			<0.10		ug/L		0.1	30-MAY-14
Sodium (Na)-Dissolved			<500		ug/L		500	30-MAY-14
Thallium (Tl)-Dissolved			<0.20		ug/L		0.2	30-MAY-14
Uranium (U)-Dissolved			<1.0		ug/L		1	30-MAY-14
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	30-MAY-14
Zinc (Zn)-Dissolved			<3.0		ug/L		3	30-MAY-14
WG1882009-5	MS	WG1882009-3						
Antimony (Sb)-Dissolved			82.8		%		70-130	30-MAY-14
Arsenic (As)-Dissolved			88.8		%		70-130	30-MAY-14
Barium (Ba)-Dissolved			78.0		%		70-130	30-MAY-14
Beryllium (Be)-Dissolved			83.7		%		70-130	30-MAY-14
Boron (B)-Dissolved			81.9		%		70-130	30-MAY-14
Cadmium (Cd)-Dissolved			83.0		%		70-130	30-MAY-14
Chromium (Cr)-Dissolved			84.1		%		70-130	30-MAY-14

Quality Control Report

Workorder: L1462166

Report Date: 03-JUN-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT								
Water								
Batch	R2848871							
WG1882009-5	MS	WG1882009-3						
Cobalt (Co)-Dissolved			83.8		%		70-130	30-MAY-14
Copper (Cu)-Dissolved			83.0		%		70-130	30-MAY-14
Lead (Pb)-Dissolved			84.5		%		70-130	30-MAY-14
Molybdenum (Mo)-Dissolved			81.0		%		70-130	30-MAY-14
Nickel (Ni)-Dissolved			84.5		%		70-130	30-MAY-14
Selenium (Se)-Dissolved			96.9		%		70-130	30-MAY-14
Silver (Ag)-Dissolved			87.5		%		70-130	30-MAY-14
Sodium (Na)-Dissolved			82.7		%		70-130	30-MAY-14
Thallium (Tl)-Dissolved			84.9		%		70-130	30-MAY-14
Uranium (U)-Dissolved			85.4		%		70-130	30-MAY-14
Vanadium (V)-Dissolved			84.4		%		70-130	30-MAY-14
Zinc (Zn)-Dissolved			84.5		%		70-130	30-MAY-14
PEST-OC-511-WT								
Water								
Batch	R2851187							
WG1884175-1	CVS							
Aldrin			66.8		%		50-150	03-JUN-14
a-chlordane			103.2		%		50-150	03-JUN-14
g-chlordane			102.9		%		50-150	03-JUN-14
o,p-DDD			106.6		%		50-150	03-JUN-14
pp-DDD			104.8		%		50-150	03-JUN-14
o,p-DDE			102.9		%		50-150	03-JUN-14
pp-DDE			106.2		%		50-150	03-JUN-14
op-DDT			97.1		%		50-150	03-JUN-14
pp-DDT			108.8		%		50-150	03-JUN-14
Dieldrin			137.8		%		50-150	03-JUN-14
Endosulfan I			107.8		%		50-150	03-JUN-14
Endosulfan II			105.4		%		50-150	03-JUN-14
Endrin			117.2		%		50-150	03-JUN-14
gamma-hexachlorocyclohexane			104.2		%		50-150	03-JUN-14
Heptachlor			106.2		%		50-150	03-JUN-14
Heptachlor Epoxide			104.2		%		50-150	03-JUN-14
Hexachlorobenzene			103.3		%		70-130	03-JUN-14
Hexachlorobutadiene			103.4		%		70-130	03-JUN-14
Hexachloroethane			110.7		%		70-130	



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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT		Water						
Batch	R2851187							
WG1884175-1	CVS							
Hexachloroethane			110.7		%		70-130	03-JUN-14
Methoxychlor			99.3		%		50-150	03-JUN-14
WG1880609-2	LCS							
Aldrin			79.2		%		50-140	03-JUN-14
a-chlordane			130.9		%		50-140	03-JUN-14
g-chlordane			137.8		%		50-140	03-JUN-14
o,p-DDD			139.4		%		50-140	03-JUN-14
pp-DDD			128.6		%		50-140	03-JUN-14
o,p-DDE			134.5		%		50-140	03-JUN-14
pp-DDE			129.9		%		50-140	03-JUN-14
op-DDT			118.3		%		50-140	03-JUN-14
pp-DDT			123.7		%		50-140	03-JUN-14
Dieldrin			132.7		%		50-140	03-JUN-14
Endosulfan I			138.3		%		50-140	03-JUN-14
Endosulfan II			132.7		%		50-140	03-JUN-14
Endrin			139.3		%		50-140	03-JUN-14
gamma-hexachlorocyclohexane			109.1		%		50-140	03-JUN-14
Heptachlor			85.9		%		50-140	03-JUN-14
Heptachlor Epoxide			138.7		%		50-140	03-JUN-14
Hexachlorobenzene			93.2		%		50-140	03-JUN-14
Hexachlorobutadiene			71.4		%		50-140	03-JUN-14
Hexachloroethane			79.3		%		40-130	03-JUN-14
Methoxychlor			105.8		%		50-140	03-JUN-14
WG1880609-1	MB							
Aldrin			<0.010		ug/L		0.01	03-JUN-14
a-chlordane			<0.040		ug/L		0.04	03-JUN-14
g-chlordane			<0.040		ug/L		0.04	03-JUN-14
o,p-DDD			<0.030		ug/L		0.03	03-JUN-14
pp-DDD			<0.030		ug/L		0.03	03-JUN-14
o,p-DDE			<0.0080		ug/L		0.008	03-JUN-14
pp-DDE			<0.0080		ug/L		0.008	03-JUN-14
op-DDT			<0.030		ug/L		0.03	03-JUN-14
pp-DDT			<0.030		ug/L		0.03	03-JUN-14
Dieldrin			<0.050		ug/L		0.05	03-JUN-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PEST-OC-511-WT		Water						
Batch	R2851187							
WG1880609-1	MB							
Endosulfan I			<0.030		ug/L		0.03	03-JUN-14
Endosulfan II			<0.030		ug/L		0.03	03-JUN-14
Endrin			<0.040		ug/L		0.04	03-JUN-14
gamma-hexachlorocyclohexane			<0.010		ug/L		0.01	03-JUN-14
Heptachlor			<0.010		ug/L		0.01	03-JUN-14
Heptachlor Epoxide			<0.010		ug/L		0.01	03-JUN-14
Hexachlorobenzene			<0.010		ug/L		0.01	03-JUN-14
Hexachlorobutadiene			<0.010		ug/L		0.01	03-JUN-14
Hexachloroethane			<0.010		ug/L		0.01	03-JUN-14
Methoxychlor			<0.050		ug/L		0.05	03-JUN-14
Surrogate: 2-Fluorobiphenyl			84.7		%		50-140	03-JUN-14
Surrogate: d14-Terphenyl			112.6		%		50-140	03-JUN-14
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-1	CVS							
1,1,1,2-Tetrachloroethane			99.6		%		75-125	30-MAY-14
1,1,2,2-Tetrachloroethane			97.6		%		75-125	30-MAY-14
1,1,1-Trichloroethane			99.9		%		75-125	30-MAY-14
1,1,2-Trichloroethane			100.9		%		75-125	30-MAY-14
1,1-Dichloroethane			96.4		%		75-125	30-MAY-14
1,1-Dichloroethylene			87.2		%		60-130	30-MAY-14
1,2-Dibromoethane			99.4		%		70-130	30-MAY-14
1,2-Dichlorobenzene			102.3		%		75-125	30-MAY-14
1,2-Dichloroethane			105.6		%		75-125	30-MAY-14
1,2-Dichloropropane			96.9		%		75-125	30-MAY-14
1,3-Dichlorobenzene			102.2		%		75-125	30-MAY-14
1,4-Dichlorobenzene			105.2		%		75-125	30-MAY-14
Acetone			95.5		%		70-130	30-MAY-14
Benzene			97.0		%		75-125	30-MAY-14
Bromodichloromethane			97.0		%		75-125	30-MAY-14
Bromoform			99.1		%		70-130	30-MAY-14
Bromomethane			104.0		%		70-130	30-MAY-14
Carbon tetrachloride			98.6		%		75-125	30-MAY-14
Chlorobenzene			100.9		%		75-125	



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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-1	CVS							
Chlorobenzene			100.9		%		75-125	30-MAY-14
Chloroform			100.9		%		75-125	30-MAY-14
cis-1,2-Dichloroethylene			96.8		%		75-125	30-MAY-14
cis-1,3-Dichloropropene			105.2		%		75-125	30-MAY-14
Dibromochloromethane			97.6		%		75-125	30-MAY-14
Dichlorodifluoromethane			101.2		%		50-140	30-MAY-14
Ethyl Benzene			101.7		%		70-130	30-MAY-14
n-Hexane			95.4		%		75-125	30-MAY-14
m+p-Xylenes			103.6		%		75-125	30-MAY-14
Methyl Ethyl Ketone			107.5		%		70-130	30-MAY-14
Methyl Isobutyl Ketone			86.0		%		70-130	30-MAY-14
Methylene Chloride			95.7		%		75-125	30-MAY-14
MTBE			98.7		%		75-125	30-MAY-14
o-Xylene			101.9		%		70-130	30-MAY-14
Styrene			101.1		%		75-125	30-MAY-14
Tetrachloroethylene			100.1		%		75-125	30-MAY-14
Toluene			93.8		%		75-125	30-MAY-14
trans-1,2-Dichloroethylene			94.4		%		75-125	30-MAY-14
trans-1,3-Dichloropropene			98.9		%		75-125	30-MAY-14
Trichloroethylene			97.7		%		75-125	30-MAY-14
Trichlorofluoromethane			107.8		%		50-140	30-MAY-14
Vinyl chloride			97.2		%		70-130	30-MAY-14
WG1881194-4	DUP	WG1881194-3						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	30-MAY-14
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-4 DUP		WG1881194-3						
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	30-MAY-14
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	30-MAY-14
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	30-MAY-14
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	30-MAY-14
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	30-MAY-14
cis-1,2-Dichloroethylene		2.53	2.45		ug/L	3.2	30	30-MAY-14
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	30-MAY-14
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	30-MAY-14
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	30-MAY-14
Ethyl Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	30-MAY-14
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	30-MAY-14
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	30-MAY-14
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	30-MAY-14
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	30-MAY-14
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	30-MAY-14
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	30-MAY-14
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	30-MAY-14
Trichloroethylene		0.69	0.69		ug/L	0.0	30	30-MAY-14
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	30-MAY-14
Vinyl chloride		1.56	1.42		ug/L	9.4	30	30-MAY-14
WG1881194-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	30-MAY-14
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	30-MAY-14



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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-2	MB							
1,1,1-Trichloroethane			<0.50		ug/L		0.5	30-MAY-14
1,1,2-Trichloroethane			<0.50		ug/L		0.5	30-MAY-14
1,1-Dichloroethane			<0.50		ug/L		0.5	30-MAY-14
1,1-Dichloroethylene			<0.50		ug/L		0.5	30-MAY-14
1,2-Dibromoethane			<0.20		ug/L		0.2	30-MAY-14
1,2-Dichlorobenzene			<0.50		ug/L		0.5	30-MAY-14
1,2-Dichloroethane			<0.50		ug/L		0.5	30-MAY-14
1,2-Dichloropropane			<0.50		ug/L		0.5	30-MAY-14
1,3-Dichlorobenzene			<0.50		ug/L		0.5	30-MAY-14
1,4-Dichlorobenzene			<0.50		ug/L		0.5	30-MAY-14
Acetone			<30		ug/L		30	30-MAY-14
Benzene			<0.50		ug/L		0.5	30-MAY-14
Bromodichloromethane			<2.0		ug/L		2	30-MAY-14
Bromoform			<5.0		ug/L		5	30-MAY-14
Bromomethane			<0.50		ug/L		0.5	30-MAY-14
Carbon tetrachloride			<0.20		ug/L		0.2	30-MAY-14
Chlorobenzene			<0.50		ug/L		0.5	30-MAY-14
Chloroform			<1.0		ug/L		1	30-MAY-14
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	30-MAY-14
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	30-MAY-14
Dibromochloromethane			<2.0		ug/L		2	30-MAY-14
Dichlorodifluoromethane			<2.0		ug/L		2	30-MAY-14
Ethyl Benzene			<0.50		ug/L		0.5	30-MAY-14
n-Hexane			<0.50		ug/L		0.5	30-MAY-14
m+p-Xylenes			<0.40		ug/L		0.4	30-MAY-14
Methyl Ethyl Ketone			<20		ug/L		20	30-MAY-14
Methyl Isobutyl Ketone			<20		ug/L		20	30-MAY-14
Methylene Chloride			<5.0		ug/L		5	30-MAY-14
MTBE			<2.0		ug/L		2	30-MAY-14
o-Xylene			<0.30		ug/L		0.3	30-MAY-14
Styrene			<0.50		ug/L		0.5	30-MAY-14
Tetrachloroethylene			<0.50		ug/L		0.5	30-MAY-14
Toluene			<0.50		ug/L		0.5	30-MAY-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-2 MB								
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	30-MAY-14
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	30-MAY-14
Trichloroethylene			<0.50		ug/L		0.5	30-MAY-14
Trichlorofluoromethane			<5.0		ug/L		5	30-MAY-14
Vinyl chloride			<0.50		ug/L		0.5	30-MAY-14
Surrogate: 1,4-Difluorobenzene			98.2		%		70-130	30-MAY-14
Surrogate: 4-Bromofluorobenzene			83.9		%		70-130	30-MAY-14
WG1881194-5 MS		WG1881194-3						
1,1,1,2-Tetrachloroethane			100.9		%		50-150	30-MAY-14
1,1,2,2-Tetrachloroethane			107.5		%		50-150	30-MAY-14
1,1,1-Trichloroethane			106.4		%		50-150	30-MAY-14
1,1,2-Trichloroethane			104.2		%		50-150	30-MAY-14
1,1-Dichloroethane			104.9		%		50-150	30-MAY-14
1,1-Dichloroethylene			91.9		%		50-150	30-MAY-14
1,2-Dibromoethane			104.1		%		50-150	30-MAY-14
1,2-Dichlorobenzene			103.1		%		50-150	30-MAY-14
1,2-Dichloroethane			119.6		%		50-150	30-MAY-14
1,2-Dichloropropane			102.9		%		50-150	30-MAY-14
1,3-Dichlorobenzene			99.9		%		50-150	30-MAY-14
1,4-Dichlorobenzene			106.5		%		50-150	30-MAY-14
Acetone			118.2		%		50-140	30-MAY-14
Benzene			102.5		%		50-150	30-MAY-14
Bromodichloromethane			108.8		%		50-150	30-MAY-14
Bromoform			107.5		%		50-150	30-MAY-14
Bromomethane			111.0		%		50-150	30-MAY-14
Carbon tetrachloride			105.0		%		50-150	30-MAY-14
Chlorobenzene			101.1		%		50-150	30-MAY-14
Chloroform			111.6		%		50-150	30-MAY-14
cis-1,2-Dichloroethylene			103.6		%		50-150	30-MAY-14
cis-1,3-Dichloropropene			108.4		%		50-150	30-MAY-14
Dibromochloromethane			101.0		%		50-150	30-MAY-14
Dichlorodifluoromethane			104.5		%		50-150	30-MAY-14
Ethyl Benzene			92.7		%		50-150	30-MAY-14
n-Hexane			93.6		%		50-150	30-MAY-14



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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R2848752							
WG1881194-5	MS	WG1881194-3						
m+p-Xylenes			99.7		%		50-150	30-MAY-14
Methyl Ethyl Ketone			120.5		%		50-150	30-MAY-14
Methyl Isobutyl Ketone			90.2		%		50-150	30-MAY-14
Methylene Chloride			108.7		%		50-150	30-MAY-14
MTBE			100.6		%		50-150	30-MAY-14
o-Xylene			94.9		%		50-150	30-MAY-14
Styrene			94.4		%		50-150	30-MAY-14
Tetrachloroethylene			95.1		%		50-150	30-MAY-14
Toluene			86.4		%		50-150	30-MAY-14
trans-1,2-Dichloroethylene			100.1		%		50-150	30-MAY-14
trans-1,3-Dichloropropene			94.2		%		50-150	30-MAY-14
Trichloroethylene			100.6		%		50-150	30-MAY-14
Trichlorofluoromethane			113.1		%		50-150	30-MAY-14
Vinyl chloride			95.1		%		50-150	30-MAY-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: ANDREW MUTRIE

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
RRQC	Refer to report remarks for information regarding this QC result.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

155683

C of C # 00000

60 NORTHLAND ROAD, UNIT 1

WATERLOO, ON N2V 2B8

Phone: (519) 886-6910

Fax: (519) 886-9047

Toll Free: 1-800-668-9878



CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM Page 1 of 1

Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends. TAT samples received past 3:00 pm or Saturday/Sunday begin the next day.

Specify date required

Service requested

2 day TAT (50%)

5 day (regular)

Next day TAT (100%)

3-4 day (25%)

X Same day TAT (200%)

COMPANY NAME

Altech

CRITERIA

Criteria on report YES NO

OFFICE

Toronto

Reg 153/04 ☐Reg 511/09 ☐

Table 1 2 3 4 5 6 7 8 9

PROJECT MANAGER

Andrew Mutrie

TCLP MISA PWQO

ODWS OTHER

PROJECT #

5140-14

PHONE

FAX

REPORT FORMAT/DISTRIBUTION

ACCOUNT #

EMAIL FAX BOTH

QUOTATION #

PO #

SELECT: PDF DIGITAL BOTH

EMAIL 1

EMAIL 2

SAMPLING INFORMATION

Sample Date/Time

TYPE

MATRIX

Date (dd-mm-yy)

Time (24hr)

(hh:mm)

COMP

GRAB

WATER

SOIL

OTHER

SAMPLE DESCRIPTION TO APPEAR ON REPORT

MWD
MWE

NUMBER OF CONTAINERS

6 PHC, VOC, Metals (dissolved)

2 OC Perchlorides

ANALYSIS REQUEST

PLEASE INDICATE FILTERED, PRESERVED OR BOTH
<---- (F, P, F/P)

SUBMISSION #:

L1462166

ENTERED BY:

NC

DATE/TIME ENTERED:

29-May-14

BIN #:

COMMENTS

LAB ID

-1
-2

SPECIAL INSTRUCTIONS/COMMENTS

THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK YES OR NO)

SAMPLE CONDITION

No pres in rebar bottle. Please filter out preserve in lab.

Are any samples taken from a regulated DW System?

Yes ☐ No ☒

If yes, an authorized drinking water COC MUST be used for this submission.

Is the water sampled intended to be potable for human consumption?

Yes ☐ No ☒FROZEN ☐COLD ☐COOLING INITIATED ☒AMBIENT ☐

MEAN

TEMP

16.0

SAMPLED BY:

Andrew Mutrie

DATE & TIME

RECEIVED BY:

DATE & TIME

12:30pm 05/29

RELINQUISHED BY:

AW

DATE & TIME

RECEIVED AT LAB:

DATE & TIME

OBSERVATIONS

Yes ☐ No ☐

If yes add SIF

INIT

Notes

1. Quote number must be provided to ensure proper pricing

2. TAT may vary dependent on complexity of analysis and lab workload at time of submission.

Please contact the lab to confirm TATs.

3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.



ALTECH ENVIRONMENTAL
ATTN: ANDREW MUTRIE
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Date Received: 02-JUN-14
Report Date: 05-JUN-14 14:30 (MT)
Version: FINAL

Client Phone: 416-467-5555

Certificate of Analysis

Lab Work Order #: L1463611
Project P.O. #: NOT SUBMITTED
Job Reference: 5140-14
C of C Numbers: 114079
Legal Site Desc:

Mathumai Ganeshkumar
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 95 West Beaver Creek Road, Unit 1, Richmond Hill, ON L4B 1H2 Canada | Phone: +1 905 881 9887 | Fax: +1 905 881 8062
ALS CANADA LTD Part of the ALS Group A Campbell Brothers Limited Company



ANALYTICAL GUIDELINE REPORT

5140-14

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits			
Grouping	Analyte						#1	#2	#3	#4
L1463611-1	BH8-4-5'									
Sampled By: CLIENT on 29-MAY-14										
Matrix: SOIL										
Physical Tests										
% Moisture		17.9		0.10	%	04-JUN-14				
Volatile Organic Compounds										
Acetone		<0.50		0.50	ug/g	05-JUN-14	16	28	16	28
Benzene		<0.020		0.020	ug/g	05-JUN-14	0.32	0.4	0.21	0.17
Bromodichloromethane		<0.050		0.050	ug/g	05-JUN-14	18	18	13	13
Bromoform		<0.050		0.050	ug/g	05-JUN-14	0.61	1.7	0.27	0.26
Bromomethane		<0.050		0.050	ug/g	05-JUN-14	0.05	0.05	0.05	0.05
Carbon tetrachloride		<0.050		0.050	ug/g	05-JUN-14	0.21	1.5	0.05	0.12
Chlorobenzene		<0.050		0.050	ug/g	05-JUN-14	2.4	2.7	2.4	2.7
Dibromochloromethane		<0.050		0.050	ug/g	05-JUN-14	13	13	9.4	9.4
Chloroform		<0.050		0.050	ug/g	05-JUN-14	0.47	0.18	0.05	0.17
1,2-Dibromoethane		<0.050		0.050	ug/g	05-JUN-14	0.05	0.05	0.05	0.05
1,2-Dichlorobenzene		<0.050		0.050	ug/g	05-JUN-14	6.8	8.5	3.4	4.3
1,3-Dichlorobenzene		<0.050		0.050	ug/g	05-JUN-14	9.6	12	4.8	6
1,4-Dichlorobenzene		<0.050		0.050	ug/g	05-JUN-14	0.2	0.84	0.083	0.097
Dichlorodifluoromethane		<0.050		0.050	ug/g	05-JUN-14	16	25	16	25
1,1-Dichloroethane		<0.050		0.050	ug/g	05-JUN-14	17	21	3.5	11
1,2-Dichloroethane		<0.050		0.050	ug/g	05-JUN-14	0.05	0.05	0.05	0.05
1,1-Dichloroethylene		<0.050		0.050	ug/g	05-JUN-14	0.064	0.48	0.05	0.05
cis-1,2-Dichloroethylene		<0.050		0.050	ug/g	05-JUN-14	55	37	3.4	30
trans-1,2-Dichloroethylene		<0.050		0.050	ug/g	05-JUN-14	1.3	9.3	0.084	0.75
1,3-Dichloropropene (cis & trans)		<0.042		0.042	ug/g	05-JUN-14	0.18	0.21	0.05	0.083
Methylene Chloride		<0.050		0.050	ug/g	05-JUN-14	1.6	2	0.1	0.96
1,2-Dichloropropane		<0.050		0.050	ug/g	05-JUN-14	0.16	0.68	0.05	0.085
cis-1,3-Dichloropropene		<0.030		0.030	ug/g	05-JUN-14				
trans-1,3-Dichloropropene		<0.030		0.030	ug/g	05-JUN-14				
Ethyl Benzene		<0.050		0.050	ug/g	05-JUN-14	9.5	19	2	15
n-Hexane		<0.050		0.050	ug/g	05-JUN-14	46	88	2.8	34
Methyl Ethyl Ketone		<0.50		0.50	ug/g	05-JUN-14	70	88	16	44
Methyl Isobutyl Ketone		<0.50		0.50	ug/g	05-JUN-14	31	210	1.7	4.3
MTBE		<0.050		0.050	ug/g	05-JUN-14	11	3.2	0.75	1.4
Styrene		<0.050		0.050	ug/g	05-JUN-14	34	43	0.7	2.2
1,1,1,2-Tetrachloroethane		<0.050		0.050	ug/g	05-JUN-14	0.087	0.11	0.058	0.05
1,1,2,2-Tetrachloroethane		<0.050		0.050	ug/g	05-JUN-14	0.05	0.094	0.05	0.05
Tetrachloroethylene		<0.050		0.050	ug/g	05-JUN-14	4.5	21	0.28	2.3
Toluene		<0.20		0.20	ug/g	05-JUN-14	68	78	2.3	6
1,1,1-Trichloroethane		<0.050		0.050	ug/g	05-JUN-14	6.1	12	0.38	3.4
1,1,2-Trichloroethane		<0.050		0.050	ug/g	05-JUN-14	0.05	0.11	0.05	0.05
Trichloroethylene		<0.050		0.050	ug/g	05-JUN-14	0.91	0.61	0.061	0.52
Trichlorofluoromethane		<0.050		0.050	ug/g	05-JUN-14	4	5.8	4	5.8
Vinyl chloride		<0.020		0.020	ug/g	05-JUN-14	0.032	0.25	0.02	0.022
o-Xylene		<0.020		0.020	ug/g	05-JUN-14				
m+p-Xylenes		<0.030		0.030	ug/g	05-JUN-14				
Xylenes (Total)		<0.050		0.050	ug/g	05-JUN-14	26	30	3.1	25
Surrogate: 4-Bromofluorobenzene		84.8		70-130	%	05-JUN-14				

** Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

* Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied:

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - ON-511-T3-Soil-All

#1: T3-Soil-Ind/Com/Comm. Property Use (Coarse)

#2: T3-Soil-Ind/Com/Comm. Property Use (Fine)

#3: T3-Soil-Res/Park/Inst. Property Use (Coarse)

#4: T3-Soil-Res/Park/Inst. Property Use (Fine)



L1463611 CONTD....

Page 3 of 5

05-JUN-14 14:30 (MT)

5140-14

* Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guideline Limit listed on this report. Guideline Limits applied.

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - ON-511-T3-Soil-All

#1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)

#2: T3-Soil-Ind/Com/Commu. Property Use (Fine)

#3: T3-Soil-Res/Park/Inst. Property Use (Coarse)

#4: T3-Soil-Res/Park/Inst. Property Use (Fine)

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
---------------	--------	------------------	---------------------

F1-F4-511-CALC-WT Soil F1-F4 Hydrocarbon Calculated Parameters
CCME CWS-PHC DEC-2000 - PUB# 1310-S

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

Hydrocarbon results are expressed on a dry weight basis.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-511-WT	Soil	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
--------------	------	-----------------------------	----------------------

Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT	Soil	F2-F4-O.Reg 153/04 (July 2011)	MOE DECPH-E3398/CCME TIER 1
--------------	------	--------------------------------	-----------------------------

Fractions F2, F3 and F4 are determined by extracting a soil sample with a solvent mix. The solvent recovered from the extracted soil sample is dried and treated to remove polar material. The extract is analyzed by GC/FID.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

MOISTURE-WT	Soil	% Moisture	Gravimetric: Oven Dried
VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Soil	VOC-O.Reg 153/04 (July 2011)	SW846 8260 (511)

Soil and sediment samples are extracted in methanol and analyzed by headspace-GC/MS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

XYLENES-SUM-CALC-WT	Soil	Sum of Xylene Isomer Concentrations	CALCULATION
---------------------	------	-------------------------------------	-------------

Total xylenes represents the sum of o-xylene and m&p-xylene.

*** ALS test methods may incorporate modifications from specified reference methods to improve performance.

Chain of Custody numbers:
114079

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location	Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA		

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg ww - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information.

Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

Page 1 of 9

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT								
Soil								
Batch	R2852951							
WG1884868-1	CVS							
F1 (C6-C10)			91.1		%		80-120	05-JUN-14
WG1884207-3	DUP	WG1884207-5						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	50	05-JUN-14
WG1884207-2	LCS							
F1 (C6-C10)			98.1		%		80-120	05-JUN-14
WG1884207-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	05-JUN-14
Surrogate: 3,4-Dichlorotoluene			111.9		%		60-140	05-JUN-14
WG1884207-7	MS	WG1884207-6						
F1 (C6-C10)			103.3		%		60-140	05-JUN-14
F2-F4-511-WT								
Soil								
Batch	R2852887							
WG1884285-4	CRM	ALS PHC2 IRM						
F2 (C10-C16)			102.5		%		70-130	05-JUN-14
F3 (C16-C34)			95.6		%		70-130	05-JUN-14
F4 (C34-C50)			89.9		%		70-130	05-JUN-14
WG1885688-1	CVS							
F2 (C10-C16)			101.9		%		80-120	05-JUN-14
F3 (C16-C34)			99.7		%		80-120	05-JUN-14
F4 (C34-C50)			98.3		%		80-120	05-JUN-14
WG1884285-10	DUP	WG1884285-8						
F2 (C10-C16)		20	21		ug/g	3.8	40	05-JUN-14
F3 (C16-C34)		57	65		ug/g	14	40	05-JUN-14
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	40	05-JUN-14
WG1884285-2	LCS							
F2 (C10-C16)			99.6		%		80-120	05-JUN-14
F3 (C16-C34)			99.7		%		80-120	05-JUN-14
F4 (C34-C50)			96.2		%		80-120	05-JUN-14
WG1884285-3	LCSD	WG1884285-2						
F2 (C10-C16)		99.6	101.4		%	1.8	50	05-JUN-14
F3 (C16-C34)		99.7	100.8		%	1.2	50	05-JUN-14
F4 (C34-C50)		96.2	96.9		%	0.7	50	05-JUN-14
WG1884285-1	MB							
F2 (C10-C16)			<10		ug/g		10	05-JUN-14
F3 (C16-C34)			<50		ug/g		50	05-JUN-14

Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

Page 2 of 9

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-511-WT								
Soil								
Batch	R2852887							
WG1884285-1 MB								
F4 (C34-C50)			<50		ug/g		50	05-JUN-14
Surrogate: 2-Bromobenzotrifluoride			89.6		%		50-140	05-JUN-14
WG1884285-9 MS		WG1884285-8						
F2 (C10-C16)			98.9		%		60-140	05-JUN-14
F3 (C16-C34)			99.1		%		60-140	05-JUN-14
F4 (C34-C50)			109.9		%		60-140	05-JUN-14
MOISTURE-WT								
Soil								
Batch	R2851979							
WG1884086-3 DUP		L1463823-2						
% Moisture		2.92	3.01		%	2.9	30	04-JUN-14
WG1884086-2 LCS								
% Moisture			87.5		%		70-130	04-JUN-14
WG1884086-1 MB								
% Moisture			<0.10		%		0.1	04-JUN-14
VOC-511-HS-WT								
Soil								
Batch	R2852951							
WG1884868-1 CVS								
1,1,1,2-Tetrachloroethane			100.2		%		75-125	05-JUN-14
1,1,2,2-Tetrachloroethane			98.5		%		75-125	05-JUN-14
1,1,1-Trichloroethane			97.7		%		75-125	05-JUN-14
1,1,2-Trichloroethane			103.8		%		75-125	05-JUN-14
1,1-Dichloroethane			93.7		%		75-125	05-JUN-14
1,1-Dichloroethylene			82.9		%		70-130	05-JUN-14
1,2-Dibromoethane			101.0		%		75-125	05-JUN-14
1,2-Dichlorobenzene			102.0		%		75-125	05-JUN-14
1,2-Dichloroethane			103.6		%		75-125	05-JUN-14
1,2-Dichloropropane			96.8		%		75-125	05-JUN-14
1,3-Dichlorobenzene			102.8		%		70-130	05-JUN-14
1,4-Dichlorobenzene			105.1		%		75-125	05-JUN-14
Acetone			94.9		%		70-130	05-JUN-14
Benzene			95.9		%		75-125	05-JUN-14
Bromodichloromethane			96.5		%		75-125	05-JUN-14
Bromoform			101.5		%		70-130	05-JUN-14
Bromomethane			101.2		%		70-130	05-JUN-14



Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

Page 3 of 9

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884868-1	CVS							
Carbon tetrachloride			96.3		%		75-125	05-JUN-14
Chlorobenzene			100.9		%		75-125	05-JUN-14
Chloroform			99.3		%		75-125	05-JUN-14
cis-1,2-Dichloroethylene			96.6		%		75-125	05-JUN-14
cis-1,3-Dichloropropene			107.1		%		75-125	05-JUN-14
Dibromochloromethane			98.8		%		75-125	05-JUN-14
Dichlorodifluoromethane			92.6		%		60-140	05-JUN-14
Ethyl Benzene			102.3		%		75-125	05-JUN-14
n-Hexane			92.1		%		75-125	05-JUN-14
Methylene Chloride			93.8		%		75-125	05-JUN-14
MTBE			97.5		%		75-125	05-JUN-14
m+p-Xylenes			103.3		%		70-130	05-JUN-14
Methyl Ethyl Ketone			84.2		%		70-130	05-JUN-14
Methyl Isobutyl Ketone			90.7		%		70-130	05-JUN-14
o-Xylene			102.5		%		75-125	05-JUN-14
Styrene			102.8		%		75-125	05-JUN-14
Tetrachloroethylene			100.3		%		75-125	05-JUN-14
Toluene			95.0		%		75-125	05-JUN-14
trans-1,2-Dichloroethylene			91.6		%		75-125	05-JUN-14
trans-1,3-Dichloropropene			103.1		%		75-125	05-JUN-14
Trichloroethylene			96.7		%		70-130	05-JUN-14
Trichlorofluoromethane			103.3		%		70-130	05-JUN-14
Vinyl chloride			93.3		%		70-130	05-JUN-14
WG1884207-3	DUP	WG1884207-5						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14

Quality Control Report

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884207-3 DUP		WG1884207-5						
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	05-JUN-14
Benzene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	05-JUN-14
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	05-JUN-14
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Ethyl Benzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	05-JUN-14
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	05-JUN-14
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	05-JUN-14
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	05-JUN-14
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Toluene		<0.20	<0.20	RPD-NA	ug/g	N/A	40	05-JUN-14
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	05-JUN-14
Trichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	05-JUN-14
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	05-JUN-14
WG1884207-2 LCS								
1,1,1,2-Tetrachloroethane			97.7		%		60-130	05-JUN-14

Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884207-2	LCS							
1,1,2,2-Tetrachloroethane			104.0		%		60-130	05-JUN-14
1,1,1-Trichloroethane			97.0		%		60-130	05-JUN-14
1,1,2-Trichloroethane			100.7		%		60-130	05-JUN-14
1,1-Dichloroethane			94.0		%		60-130	05-JUN-14
1,1-Dichloroethylene			81.6		%		60-130	05-JUN-14
1,2-Dibromoethane			98.8		%		70-130	05-JUN-14
1,2-Dichlorobenzene			101.0		%		70-130	05-JUN-14
1,2-Dichloroethane			101.9		%		60-130	05-JUN-14
1,2-Dichloropropane			95.5		%		70-130	05-JUN-14
1,3-Dichlorobenzene			98.2		%		70-130	05-JUN-14
1,4-Dichlorobenzene			102.0		%		70-130	05-JUN-14
Acetone			99.9		%		60-140	05-JUN-14
Benzene			95.4		%		70-130	05-JUN-14
Bromodichloromethane			99.0		%		50-140	05-JUN-14
Bromoform			102.3		%		70-130	05-JUN-14
Bromomethane			95.3		%		50-140	05-JUN-14
Carbon tetrachloride			97.2		%		70-130	05-JUN-14
Chlorobenzene			98.3		%		70-130	05-JUN-14
Chloroform			100.6		%		70-130	05-JUN-14
cis-1,2-Dichloroethylene			95.7		%		70-130	05-JUN-14
cis-1,3-Dichloropropene			102.5		%		70-130	05-JUN-14
Dibromochloromethane			97.4		%		60-130	05-JUN-14
Dichlorodifluoromethane			71.8		%		50-140	05-JUN-14
Ethyl Benzene			97.2		%		70-130	05-JUN-14
n-Hexane			84.6		%		70-130	05-JUN-14
Methylene Chloride			94.6		%		70-130	05-JUN-14
MTBE			96.0		%		70-130	05-JUN-14
m+p-Xylenes			100.1		%		70-130	05-JUN-14
Methyl Ethyl Ketone			111.9		%		60-140	05-JUN-14
Methyl Isobutyl Ketone			90.4		%		60-140	05-JUN-14
o-Xylene			98.9		%		70-130	05-JUN-14
Styrene			99.3		%		70-130	05-JUN-14
Tetrachloroethylene			95.6		%		60-130	05-JUN-14



Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884207-2	LCS							
Toluene			89.4		%		70-130	05-JUN-14
trans-1,2-Dichloroethylene			90.8		%		60-130	05-JUN-14
trans-1,3-Dichloropropene			93.3		%		70-130	05-JUN-14
Trichloroethylene			96.2		%		60-130	05-JUN-14
Trichlorofluoromethane			99.99		%		50-140	05-JUN-14
Vinyl chloride			82.9		%		70-130	05-JUN-14
WG1884207-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	05-JUN-14
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	05-JUN-14
1,1,1-Trichloroethane			<0.050		ug/g		0.05	05-JUN-14
1,1,2-Trichloroethane			<0.050		ug/g		0.05	05-JUN-14
1,1-Dichloroethane			<0.050		ug/g		0.05	05-JUN-14
1,1-Dichloroethylene			<0.050		ug/g		0.05	05-JUN-14
1,2-Dibromoethane			<0.050		ug/g		0.05	05-JUN-14
1,2-Dichlorobenzene			<0.050		ug/g		0.05	05-JUN-14
1,2-Dichloroethane			<0.050		ug/g		0.05	05-JUN-14
1,2-Dichloropropane			<0.050		ug/g		0.05	05-JUN-14
1,3-Dichlorobenzene			<0.050		ug/g		0.05	05-JUN-14
1,4-Dichlorobenzene			<0.050		ug/g		0.05	05-JUN-14
Acetone			<0.50		ug/g		0.5	05-JUN-14
Benzene			<0.020		ug/g		0.02	05-JUN-14
Bromodichloromethane			<0.050		ug/g		0.05	05-JUN-14
Bromoform			<0.050		ug/g		0.05	05-JUN-14
Bromomethane			<0.050		ug/g		0.05	05-JUN-14
Carbon tetrachloride			<0.050		ug/g		0.05	05-JUN-14
Chlorobenzene			<0.050		ug/g		0.05	05-JUN-14
Chloroform			<0.050		ug/g		0.05	05-JUN-14
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	05-JUN-14
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	05-JUN-14
Dibromochloromethane			<0.050		ug/g		0.05	05-JUN-14
Dichlorodifluoromethane			<0.050		ug/g		0.05	05-JUN-14
Ethyl Benzene			<0.050		ug/g		0.05	05-JUN-14
n-Hexane			<0.050		ug/g		0.05	05-JUN-14
Methylene Chloride			<0.050		ug/g		0.05	05-JUN-14



Quality Control Report

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884207-1 MB								
MTBE			<0.050		ug/g		0.05	05-JUN-14
m+p-Xylenes			<0.030		ug/g		0.03	05-JUN-14
Methyl Ethyl Ketone			<0.50		ug/g		0.5	05-JUN-14
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	05-JUN-14
o-Xylene			<0.020		ug/g		0.02	05-JUN-14
Styrene			<0.050		ug/g		0.05	05-JUN-14
Tetrachloroethylene			<0.050		ug/g		0.05	05-JUN-14
Toluene			<0.20		ug/g		0.2	05-JUN-14
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	05-JUN-14
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	05-JUN-14
Trichloroethylene			<0.050		ug/g		0.05	05-JUN-14
Trichlorofluoromethane			<0.050		ug/g		0.05	05-JUN-14
Vinyl chloride			<0.020		ug/g		0.02	05-JUN-14
Surrogate: 1,4-Difluorobenzene			105.9		%		70-130	05-JUN-14
Surrogate: 4-Bromofluorobenzene			93.7		%		70-130	05-JUN-14
WG1884207-4 MS		WG1884207-5						
1,1,1,2-Tetrachloroethane			97.8		%		50-140	05-JUN-14
1,1,2,2-Tetrachloroethane			101.6		%		50-140	05-JUN-14
1,1,1-Trichloroethane			96.4		%		50-140	05-JUN-14
1,1,2-Trichloroethane			101.6		%		50-140	05-JUN-14
1,1-Dichloroethane			93.2		%		50-140	05-JUN-14
1,1-Dichloroethylene			80.1		%		50-140	05-JUN-14
1,2-Dibromoethane			100.3		%		50-140	05-JUN-14
1,2-Dichlorobenzene			99.99		%		50-140	05-JUN-14
1,2-Dichloroethane			104.4		%		50-140	05-JUN-14
1,2-Dichloropropane			96.0		%		50-140	05-JUN-14
1,3-Dichlorobenzene			97.2		%		50-140	05-JUN-14
1,4-Dichlorobenzene			100.9		%		50-140	05-JUN-14
Acetone			101.9		%		50-140	05-JUN-14
Benzene			95.1		%		50-140	05-JUN-14
Bromodichloromethane			98.2		%		50-140	05-JUN-14
Bromoform			101.8		%		50-140	05-JUN-14
Bromomethane			95.1		%		50-140	05-JUN-14
Carbon tetrachloride			96.0		%		50-140	05-JUN-14

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Workorder: L1463611

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Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9

Contact: ANDREW MUTRIE

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R2852951							
WG1884207-4 MS		WG1884207-5						
Chlorobenzene			98.7		%		50-140	05-JUN-14
Chloroform			100.8		%		50-140	05-JUN-14
cis-1,2-Dichloroethylene			95.7		%		50-140	05-JUN-14
cis-1,3-Dichloropropene			101.1		%		50-140	05-JUN-14
Dibromochloromethane			98.5		%		50-140	05-JUN-14
Dichlorodifluoromethane			65.9		%		50-140	05-JUN-14
Ethyl Benzene			96.9		%		50-140	05-JUN-14
n-Hexane			82.2		%		50-140	05-JUN-14
Methylene Chloride			94.8		%		50-140	05-JUN-14
MTBE			94.6		%		50-140	05-JUN-14
m+p-Xylenes			99.6		%		50-140	05-JUN-14
Methyl Ethyl Ketone			115.3		%		50-140	05-JUN-14
Methyl Isobutyl Ketone			89.0		%		50-140	05-JUN-14
o-Xylene			98.3		%		50-140	05-JUN-14
Styrene			98.8		%		50-140	05-JUN-14
Tetrachloroethylene			95.7		%		50-140	05-JUN-14
Toluene			90.0		%		50-140	05-JUN-14
trans-1,2-Dichloroethylene			89.4		%		50-140	05-JUN-14
trans-1,3-Dichloropropene			92.5		%		50-140	05-JUN-14
Trichloroethylene			95.4		%		50-140	05-JUN-14
Trichlorofluoromethane			97.2		%		50-140	05-JUN-14
Vinyl chloride			80.8		%		50-140	05-JUN-14

Quality Control Report

Workorder: L1463611

Report Date: 05-JUN-14

Client: ALTECH ENVIRONMENTAL
12 BANIGAN DRIVE
TORONTO ON M4H 1E9
Contact: ANDREW MUTRIE

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Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

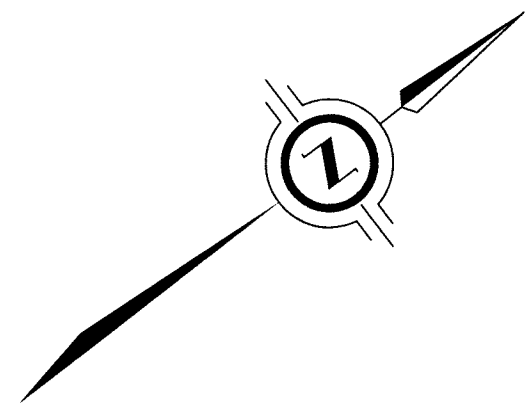
All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

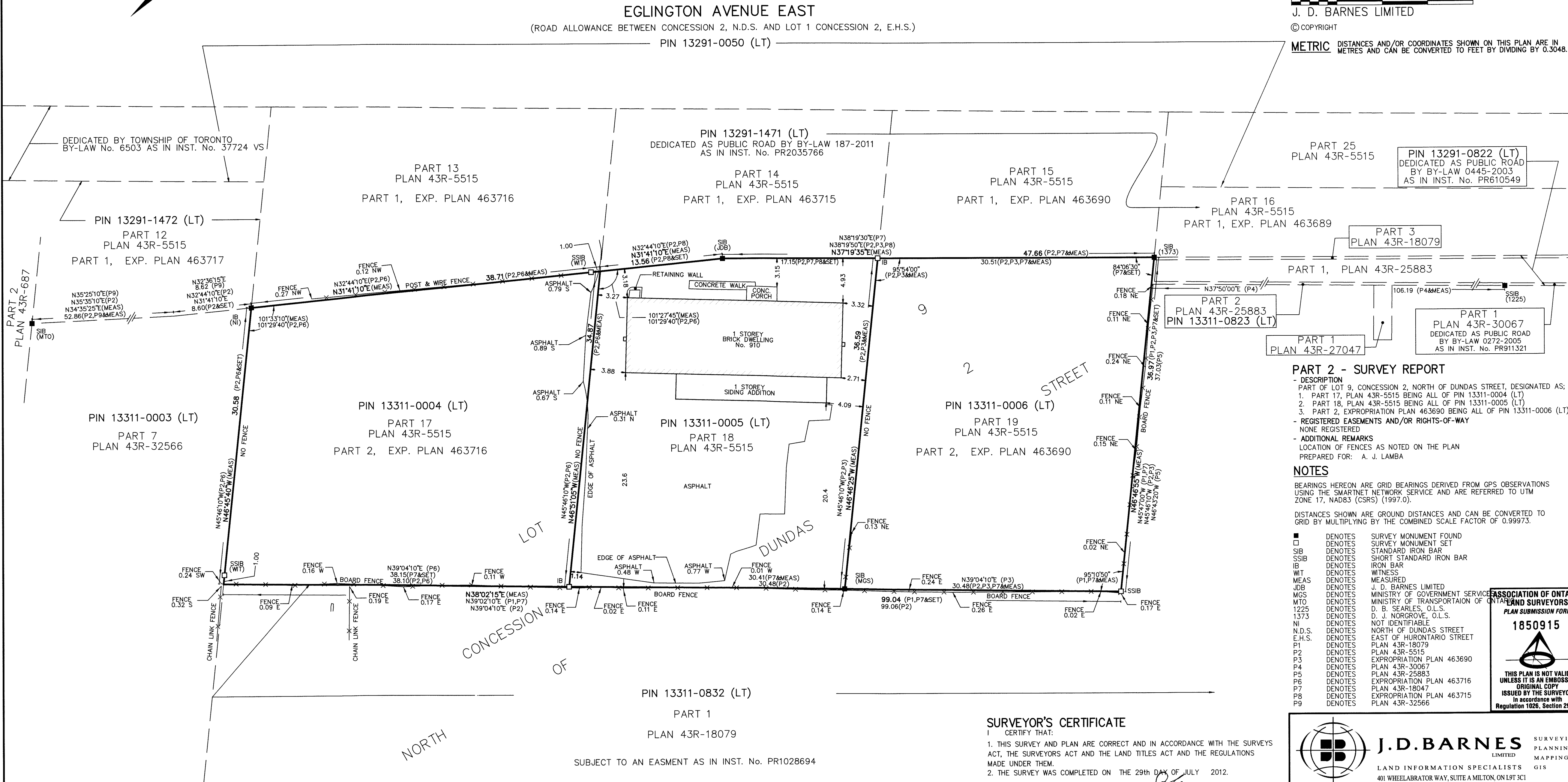
Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Appendix A – 4
Phase Two Property Survey



SURVEYOR'S REAL PROPERTY REPORT
PART 1 - PLAN SHOWING
**PART OF LOT 9
CONCESSION 2
NORTH OF DUNDAS STREET**
GEOGRAPHIC TOWNSHIP OF TORONTO, COUNTY OF PEEL
NOW IN THE
CITY OF MISSISSAUGA
REGIONAL MUNICIPALITY OF PEEL
SCALE 1 : 250
J. D. BARNES LIMITED
© COPYRIGHT

METRIC DISTANCES AND/OR COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.



PART 2 - SURVEY REPORT
- DESCRIPTION
PART OF LOT 9, CONCESSION 2, NORTH OF DUNDAS STREET, DESIGNATED AS:
1. PART 17, PLAN 43R-5515 BEING ALL OF PIN 13311-0004 (LT)
2. PART 18, PLAN 43R-5515 BEING ALL OF PIN 13311-0005 (LT)
3. PART 2, EXPROPRIATION PLAN 463690 BEING ALL OF PIN 13311-0006 (LT)
- REGISTERED EASEMENTS AND/OR RIGHTS-OF-WAY
NONE REGISTERED
- ADDITIONAL REMARKS
LOCATION OF FENCES AS NOTED ON THE PLAN
PREPARED FOR: A. J. LAMBA

NOTES
BEARINGS HEREON ARE GRID BEARINGS DERIVED FROM GPS OBSERVATIONS USING THE SMARTNET NETWORK SERVICE AND ARE REFERRED TO UTM ZONE 17, NAD83 (CSRS) (1997.0).
DISTANCES SHOWN ARE GROUND DISTANCES AND CAN BE CONVERTED TO GRID BY MULTIPLYING BY THE COMBINED SCALE FACTOR OF 0.99973.

□	DENOTES	SURVEY MONUMENT FOUND
□	DENOTES	SURVEY MONUMENT SET
SSIB	DENOTES	STANDARD IRON BAR
IB	DENOTES	SHORT STANDARD IRON BAR
IB	DENOTES	IRON BAR
WT	DENOTES	WITNESS
MEAS	DENOTES	MEASURED
JOB	DENOTES	J. D. BARNES LIMITED
MGS	DENOTES	MINISTRY OF GOVERNMENT SERVICES
NI	DENOTES	NOT IDENTIFIABLE
N.D.S.	DENOTES	NORTH OF DUNDAS STREET
E.H.S.	DENOTES	EAST OF HURONTARIO STREET
P1	DENOTES	PLAN 43R-18079
P2	DENOTES	PLAN 43R-5515
P3	DENOTES	EXPROPRIATION PLAN 463690
P4	DENOTES	PLAN 43R-30067
P5	DENOTES	PLAN 43R-25883
P6	DENOTES	EXPROPRIATION PLAN 463716
P7	DENOTES	PLAN 43R-18047
P8	DENOTES	EXPROPRIATION PLAN 463715
P9	DENOTES	PLAN 43R-32566

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT, THE SURVEYORS ACT AND THE LAND TITLES ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 29th DAY OF JULY 2012.
DATE JULY 31st, 2012
STEVE BALABAN
ONTARIO LAND SURVEYOR

J.D. BARNES
LIMITED
LAND INFORMATION SPECIALISTS
401 WHEELABRATOR WAY, SUITE A MILTON, ON L9T 3C1
T: (905) 875-9955 F: (905) 875-9956 www.jdbarnes.com

**ASSOCIATION OF ONTARIO
LAND SURVEYORS**
PLAN SUBMISSION FORM
1850915
THIS PLAN IS NOT VALID
UNLESS IT IS AN EMBOSSED
ORIGINAL COPY
ISSUED BY THE SURVEYOR
In accordance with
Regulation 1026, Section 29(3).

DRAWN BY: RSQ
CHECKED BY: [Signature]
REFERENCE NO.: 12-30-369-00-A
FILE: G:\12-30-369-00\12-30-369-00-A.dgn
DATED: 07/31/12
PLOTTED: 8/1/2012

SUBJECT TO AN EASMENT AS IN INST. No. PR1028694

Appendix A – 5
Utility Locate Reports

Locate Report - Overview

Date: May 16, 2014 (m/d/y)

Company Name: AI tech P.O./Ref: 5140-14

Company Address: Drew C Crew: AD

Client Name: Andrew Mutrice Vehicle: BM

Site Name: Mississauga Locate System: BM Nts:

Site Address: 900-920 Eglinton Ave E City/Town: Mississauga

Start Time	Lunch Hour	Finish Time	Total Hours	Total Mob.	Public Locates
<u>9:30</u>		<u>11:00</u>	<u>1.5</u>	<u>GTA</u>	By All Clear <u>By Client</u>

UTILITY	Scope	Status	Method
Gas			
Electrical			
Water			
Sanitary Sewer			
Storm Sewer			
Communications			
Other			

LEGEND	M	Marked on site
Status	C	Clear in located area
	NL	Not locatable
	NR	Not Requested
Method	EM	Electromagnetic*
	GPR	Ground Penetrating Radar*
	SR	Site Record*
	PU	Public Utility (not marked by All Clear)
	Other	

* See Terms and Conditions

Notes: locate used unless signed

att by client.

SITE CONDITIONS

Work Plan Provided ☒

Access to building(s) ☒

Utility Drawings Provided ☐

Wet Conditions/Rain ☐

Loose Ground ☒

Snow Covered ☐

Public Locates Completed ☐

ATTENTION:

- Ontario One Call must be notified to mark any public utilities
- A copy of this Private Locate Report and the Public Locate Report must be on site during drilling or excavation work
- Locate Report is only valid for 30 days after completion date
- The client must not work outside located areas or cleared BH locations without a new locate
- Do not drill or excavate within 1m of marked utility, if markings have been washed away the site must be remarked
- Please read the limitations of this locate on reverse

Rep. Name: _____

Signature: _____

I have read and understand the Terms and Conditions on the reverse of this report. I have notified the site owner and all involved with the project. I understand that this Locate Report is for convenience only and does not substitute for the authorized location of any underground utility by the owner. All Clear Locates Inc. is not liable for any damages of any amount in excess of the fees paid by the client under any circumstances.

LOCATES

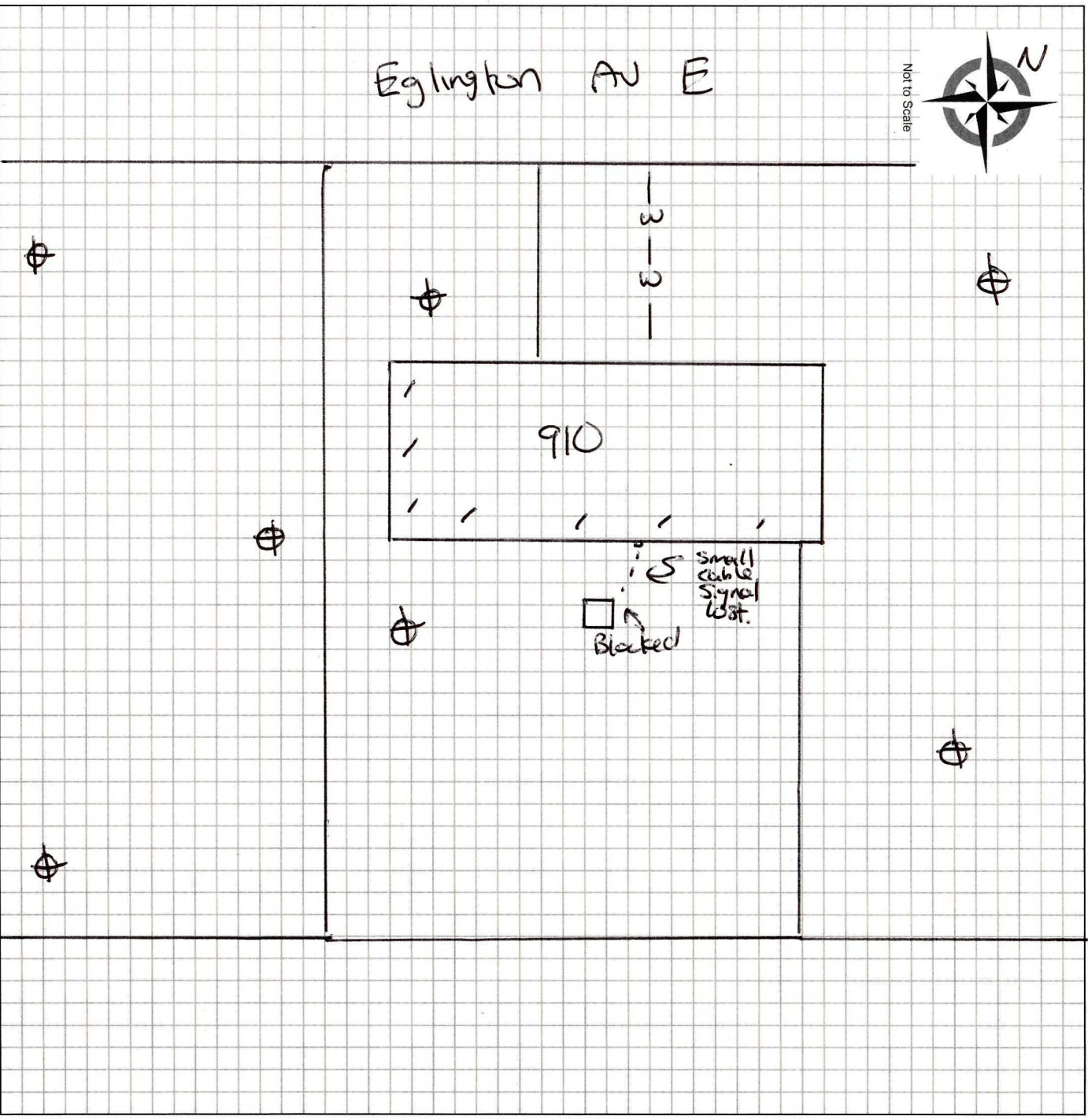
Locate Report - Sketch

LEGEND	SYMBOL	PAINT
Gas	— G —	Yellow
Electric	— E —	Red
Water	— W —	Blue
Sanitary	— SAN —	Green
Storm Sewer	— ST —	Green
Bell	— BT —	Orange
Communications	— C —	Orange
Unknown	— ? —	Pink
Transformer	⬢	
Street Light	⊗	
Pedestal	⊗	
Manhole	⊗	

LEGEND	SYMBOL
Property Line	— PL —
Building Line	— BL —
Limit of Locate	— LOL —
Sidewalk	— SW —
Curb Line	— CL —
Driveway	— DW —
Fence	-x-x-
Hydrant	⊠
Catch Basin	⊞
Pole	○
Vegetation	○
Borehole (BH)	⊕

Locate Area: Scan this for active/passive signals - no found. Marked private electric and water located.
No sensors noted in work area, sensors not located.

- Drill within 1 m of centre of borehole, excavate inside cleared area only
- Do not drill or dig within 1 m of marked utility
- Refer to 'Locate Report - Overview' and Terms and Conditions



Terms and Conditions

Limits of locating technology

It is understood that fundamental laws of physics apply and the equipment may not be able to locate all features and structures that exist underground. Such utilities are not locatable and are not covered in this locate report. The cable or pipe must be conductive or it cannot be located. Non-metallic (concrete, clay, plastic, asbestos etc.) may not be locatable, as well as DC or low voltage lines. The type of pipe or cable and soil conditions may weaken signal strength. Passive signals are not always be detectable.

Utilities are locatable if:

- Utility is metallic, can carry an electrical signal, or contains a tracer wire where direct access to a point can be coupled to it, as provided by the client.
- Other materials around the utility do not interfere with magnetic fields.
- Soil condition or depth does not cause the signal to be weak and undetectable.
- Utilities emerge in accessible areas where the work area is not physically blocked by snow or other obstacle where they can be safely coupled onto.
- The lines do not have breaks, plastic repairs, rubber gaskets, corrosion or any other characteristic that would limit its conductivity.
- Utilities are not clustered with other lines that may redirect magnetic signals

Ground Penetrating Radar: The ability to detect pipes or objects depends on the type, structure and electrical properties of the soil. Site conditions may make data difficult or impossible to interpret. Therefore, All Clear Locates Inc. cannot make warranties regarding the depth of penetration or the ability to successfully locate underground utilities or structures using this technology.

Limited Liability of All Clear Locates Inc.

The services performed by All Clear Locates is based on the information provided by the client and do not substitute for an authorized location of the utilities by the owner.

All Clear Locates Inc. will locate all locatable utilities in a given work area. Non-locatable utilities will not be marked due to the limitations of locating technology or access to utilities.

Public utilities will not be marked by All Clear Locates Inc. Public utilities can only be marked by the utility owner.

The locate report must be on site during drilling or excavating and is not valid after 30 days.

The client may not drill outside a one-meter radius of a cleared borehole, outside a cleared work zone or may not excavate outside of the located area.

Excavation (including but not limited to digging and drilling) may not occur with one meter of any marked utility.

A remark must be obtained if:

- Markings are unclear
- Sketch and site markings do not coincide
- Work areas have moved or enlarged
- New information has become available about underground utilities
- An error has been identified in locate report or markings

Given the limitations of the technology used for locating, All Clear Locates Inc. cannot guarantee that underground utilities do not exist in a given work area. The service provided by All Clear Locates Inc. is for convenience only. If damage does occur, then All Clear Locates Inc. must be notified in a reasonable time frame. All Clear Locates Inc. is not liable for any amount in excess of fee paid for the service resulting from damage, loss, injury or death that results for negligence of All Clear Locates Inc. or its employees in the performance or non-performance of the service.



Enersource Hydro Buried Plant Locate Form

Phone: 416-642-3111 Fax: 647-342-8344

Page 1 of ____

From: 900 To: 920
Street: EGLINTON AVE E
Intersection 1: TOMKEN RD
Intersection 2:
City: MISSISSAUGA

Requested by: ANDREW MUTRIE
ALTECH ENVIRONMENTAL CONSULTING
Phone: (416)-467-5555 Fax: (416)-467-9824

Request #: 2014206722

Excavation Date: 20/05/2014

Units:

27

Type of Work:
BORE HOLES

STANDARD

13/05/2014 7:55:36 AM

W1405121648310 THERE IS ONE BUILDING AT THE THREE PROPERTIES AT 910 EGLINTON, CURRENTLY REAL ESTATE OFFICE. THE OTHER TWO LOTS ARE VACANT. DRILLING TO TAKE PLACE ON ALL 3 PROPERTIES. FRONT, SIDE, BACK
TOMKEN AND EGLINTON 50 M SOUTHEAST DEPTH UNKNOWN NB_SEGMENTS: 1, BCGW01, EN01, ROGP01, ENGWD1 TICKET SENT TO: EN01
DIR. DRILLING, PRIV. PROP. MACH. DIG. AREA NOT MARKED

Dig Area: Excavator shall not work outside the limits of the Dig Area without obtaining another locate.

From: W/PL # 900 EGLINTON AVE E.

To: E/PL # 920 EGLINTON AVE E.

From: S/PL # 900/910+920 EGLINTON AVE E.

To: N/PL # 900/910+920 EGLINTON AVE E.

LEGEND

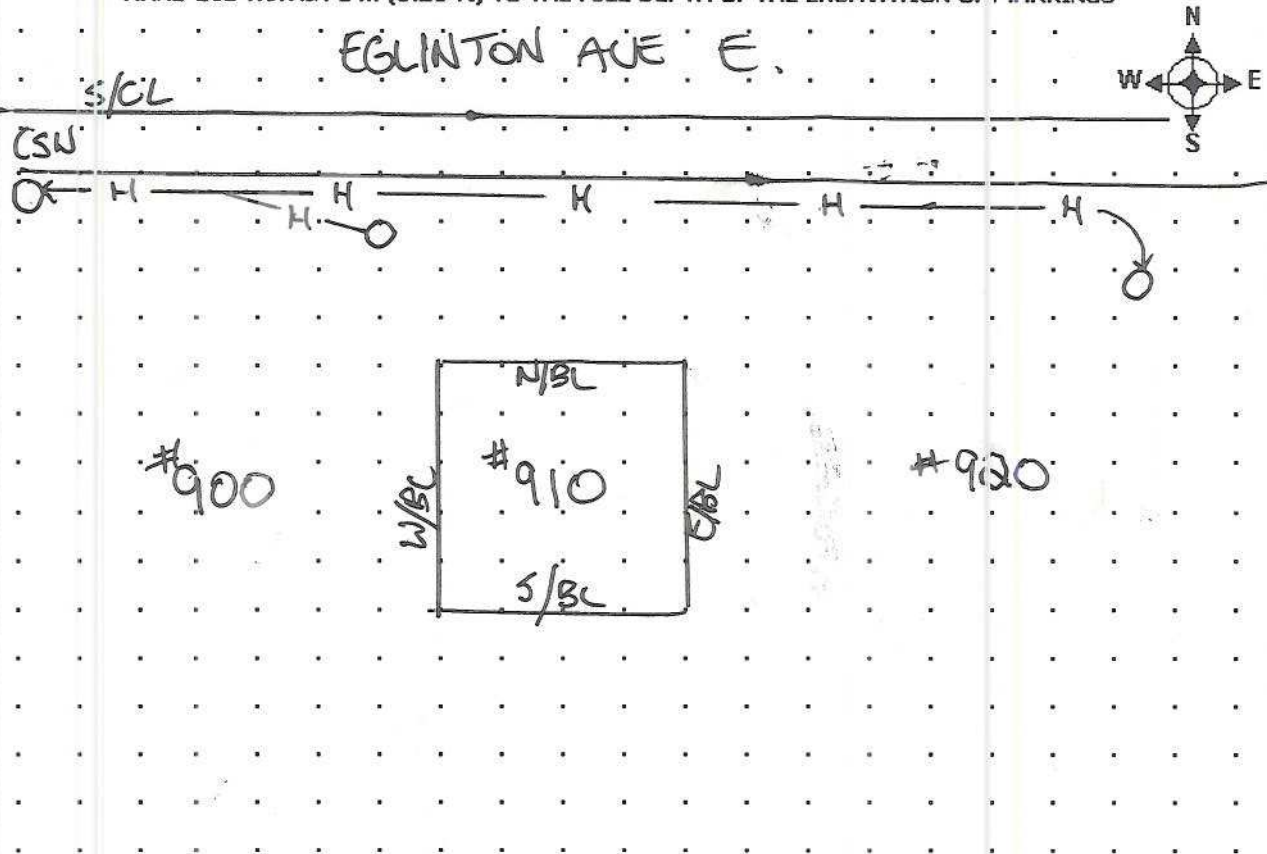
Building Line -BL-
Property Line -PL-
Fence Line -FL-
Curb Line -CL-
Manhole [MH]
Catch Basin [CB]
Sidewalk CSW
Pole O
Railway [RR]
Transformer [T]
Conduit -C-
Hydrant [H]
Hydro Cable ---
Streetlight -SL-
Telecom Handwell [HW]
Telecom Plant -T-
Telecom Pedestal [P]

HAND DIG 1 metre either side of markings - HAND DIG 3 metres around terminal poles, transformers and padmounted equipment - EXCAVATOR shall be liable for damages incurred within marked area as sketched. This form is valid 30 days after completion of locate.

Method of Field Marking:

☒ Paint ☐ Stakes ☐ Flags ☐ Offset Stakes ☐ Chalk ☐ Other (Gas-Yellow Telecommunications-Orange-Hydro-Red)

HAND DIG WITHIN 1 m (3.28 ft) TO THE FULL DEPTH OF THE EXCAVATION OF MARKINGS



SKETCH NOT DRAWN TO SCALE

Caution: The markings may disappear or be misplaced. Should sketch markings not coincide, a new stakeout must be obtained. This is based on information given at the time. Any changes to location or nature of work require a new stakeout. The EXCAVATOR must not work outside the indicated "Dig Area" without a further locate by the company. When a locate is being provided for more than one EXCAVATOR working on the project, a separate form must be issued to each. Privately owned facilities may be present in Dig Area, check with property owner. **Locate is VOID after 30 days.** For remarks within 30 Calendar days call "Locate Company" at the phone numbers above. After 30 Calendar days call Ontario One Call 1-800-400-2255.

Accepted by:

Located by: GW

Date and Time:

14/05/2014

Print:

I.D. number:

140019

☐ Mark and Fax

☐ Left on Site

☐ Other

A copy of this Locate Report must be on site and in the hands of the machine operator during work operations.

Appendix A – 6
Site Photographs

Site Photographs – 900-920 Eglinton Avenue East – Altech Project 5140-14 – May 23, 2014



Photograph 1
BH 1 location (Orange mark)



Photograph 2
BH 2 / MW A location



Photograph 3
BH3 location



Photograph 4
BH4 / MW A location (pylon)



Photograph 5
BH 5 location (red), BH6/MWC location (green),
BH7 location (yellow)



Photograph 6
Soil column extracted from BH4



Photograph 7
Red brick debris found in BH5 at around 1' bgs.



Photograph 8
Soil column extracted from BH6. Arrow points
to soil material that tested high for VOC
readings.