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PHASE II ENVIRONMENTAL SITE ASSESSMENT

1201 AND 1215 ARCHIBALD STREET
WINNIPEG, MANITOBA

PREPARED FOR:
THE CITY OF WINNIPEG

PREPARED BY:
CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

CONCENTRIC REFERENCE NUMBER:
13-5107-E

DATE:
November 1, 2013

EXECUTIVE SUMMARY

The City of Winnipeg retained Concentric Associates International Incorporated (Concentric) to conduct a Phase II Environmental Site Assessment of the Bonivital Pool and the City's Public Works Yard located at 1201 and 1215 Archibald Street in Winnipeg, Manitoba. The purpose of this investigation was to assess areas of potential environmental concern identified in Concentric's Phase I Environmental Site Assessment report, dated June 24, 2013.

The onsite assessment activities were conducted between August 13 and 19, 2013, and included the advancement of eight test pits and 17 boreholes with 13 of the 17 boreholes being completed as monitoring wells to assess soil and groundwater conditions beneath the site. A total of 20 soil and 11 groundwater samples were submitted for laboratory analysis of selected substances of concern including petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and metals.

Soil analytical results indicated that concentrations of one or more PHC parameters exceeded applicable guidelines in several soil samples collected in the vicinity of the former underground storage tanks (USTs) and pump island. All other parameters measured in the soil samples analyzed were below the applicable guidelines with the exception of a slightly elevated concentration of nickel in a sample collected from the west side of the storage yard. The concentration of nickel at this location is not considered a significant concern requiring further delineation or remedial action.

Groundwater analytical results indicated that concentrations of PHC parameters exceeded applicable criteria in the samples collected from monitoring wells installed in the vicinity of the former USTs and pump island. All other parameters measured in the groundwater samples analyzed were below the applicable criteria.

Based on the results of this investigation, Concentric recommends the following:

- Develop a Remedial Action Plan (RAP) to address the PHC impacted soil and groundwater in the vicinity of the former USTs and pump island. The recommended remedial option based on the results of the Phase II ESA and previous work completed in the area by others is likely to involve excavation and off-site disposal of soil. Containment, collection and off-site disposal (or on-site treatment) of impacted groundwater will also be detailed in the RAP.

- Further characterize groundwater conditions in the vicinity of the USTs and pump island (remedial area) to enhance delineation and monitor residual dissolved PHC impacts in the shallow groundwater beneath the site. This will involve installation of new monitoring wells and will be detailed in the RAP.

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1.0 INTRODUCTION

The City of Winnipeg (City) retained Concentric Associates International Incorporated (Concentric) to conduct a Phase II Environmental Site Assessment (ESA) of the Bonivital Pool and the City's Public Works Yard located at 1201 and 1215 Archibald Street in Winnipeg, Manitoba, respectively, hereafter referred to as the 'site'.

Concentric conducted a Phase I ESA at the site in June 2013, details of which were provided in Concentric's Phase I ESA report (Concentric, 2013). The Phase I ESA identified several potential environmental concerns and therefore a Phase II ESA was recommended in order to investigate these concerns.

It is Concentric's understanding that the Phase I and II ESAs were commissioned in support of site re-development.

2.0 BACKGROUND INFORMATION

2.1 Site Description

The Public Works Yard and Bonivital Pool facility are part of an overall City property that encompasses approximately 44 hectares (109 acres) and also includes a golf course. For the purposes of the Phase I ESA and this Phase II ESA, the City provided Concentric with an outline of the subject area for investigation (site) relative to the overall City property. This area (the site) is irregular in shape and encompasses approximately 2.8 hectares (6.9 acres).

The site is situated within the southeastern portion of the City of Winnipeg (Figure 1) and is legally described as Part of Lots 318 and 319, Plan 433, Parish Lot Roman Catholic Missionary Property (RCMP) except out of both lots, Plans 4230, 6941, 7934 and 21761 WLTO and further excepting out of lot 318, Plan 24129 and all that portion which lies to the northeast of the northeast limit of Plan 4230; secondly, all the portion of lot 320 RCMP which lies to the northwest of the northwest limit of Plan 6142 WLTO, Winnipeg, Manitoba.

The site has been owned by the City of Winnipeg since February of 1970. One recreational building located at 1215 Archibald Street is used as a pool facility. One storage/maintenance building and five storage buildings/sheds are located at 1201 Archibald Street (Figure 2). The site is bordered to the north and west by the Niakwa Park/Windsor Park Golf Course; to the south by a residential subdivision; and to the east by Archibald Street, followed by the Canadian Pacific Railway and a residential subdivision.

2.2 Site Setting

The site is located within the Borderlands Interior Plains physiographic region (Bostock, 1967). Overall, the site is relatively flat lying, with a gentle slope towards the unnamed drainage channel that runs in a southeast to northwest direction through the southwestern portion of the site. Drainage is also controlled by several City storm water catch basins which are present at the site (see Figure 2). The Seine River is located 575 m west of the site with ultimate discharge to the Red River located approximately 1.8 km west of the site.

Regional surficial geology is described as clay to silty clay with fine grained glaciolacustrine deposits. The bedrock geology in the area of the site is Ordovician-aged dolostone, limestone, shale and basal sandstone.

2.3 Previous Environmental Investigations

2.3.1 Work Conducted by Concentric

Concentric conducted a Phase I ESA in May 2013 (Concentric, 2013). The Phase I ESA was carried out in accordance with the Canadian Standards Association document Z768-01 Phase I Environmental Site Assessment, as amended (CSA, 2001). The Phase I ESA identified the following potential environmental concerns:

1. The Public Works Yard (1201 Archibald Street) was identified in Manitoba's Environmental Management System database as a Contaminated/Impacted Site.

2. Manitoba's Fuel Storage Tanks Database identified USTs at the Public Works Yard dating back to 1971. The USTs and associated pump island were located along the eastern boundary of the Public Works Yard, just south of the entrance onto the site from Archibald Street. The USTs were between 4,500 and 5,000 L in capacity and in use from 1971 until 2008 when the pump island and USTs were removed. The 30-40 year history of petroleum handling and storage in bulk quantities on-site is a potential environmental concern.

3. Prior to 1998, operations at the Public Works Yard included maintenance of city owned vehicles and equipment. Dark staining was noted on the concrete floor in the area where vehicle maintenance was formerly undertaken. A floor drain which eventually discharges to the sanitary sewer system was also located in this area. This historical operation and possibility for release of petroleum-based and other products associated with vehicle maintenance to the environment is a potential concern.

4. Several areas of staining were observed on the exterior gravel of the Public Works Yard. Given the long history of vehicle and equipment storage and maintenance at the site, there are potential environmental concerns related to possible surface and subsurface soil and/or groundwater impacts in these areas.

5. Fill material is frequently stored at the Public Works Yard. This material is typically stored on-site and then used at various work sites throughout Winnipeg. No documentation regarding the origin and quality of the fill material was available. There is potential environmental concern associated with the unknown quality of fill material periodically stored at the Public Works Yard.

The Phase I ESA recommended conducting a Phase II ESA in order to investigate the identified issues of potential environmental concern for the site. Potential substances of concern identified from the Phase I ESA included volatile organic compounds (VOCs), petroleum hydrocarbon (PHC) fractions F1 (C_6-C_{10}), F2 ($C_{>10}$-C_{16}), F3 ($C_{>16}$-C_{34}) and F4 ($C_{>34}$), polycyclic biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and metals.

2.3.2 Work Completed by Others

The City provided Concentric with two previous environmental reports related to subsurface investigations and remediation work undertaken in a central portion of the Public Works Yard. The reports are as follows:

1. *Environmental Report for Underground Storage Tank Removal – 1201 Archibald Street, Winnipeg, Manitoba* by The National Testing Laboratories Limited (NTL; June, 2008)

2. *Removal of Impacted Soils, City of Winnipeg Maintenance Yard – 1201 Archibald Street, Winnipeg, Manitoba* by NTL (November, 2008)

In June 2008, NTL conducted a soil sampling and analysis program during the removal of two underground storage tanks (USTs) at the Public Works Yard. Results of sampling and analysis activities indicated that soil in the vicinity of the USTs was impacted by PHCs above applicable regulatory criteria. At this time NTL recommended further assessment to further delineate the PHC impacted soil.

In November 2008, NTL directed the advancement of three environmental test pits at the site to assess the extent of PHC impacted soils. One test pit was excavated in the area of the former USTs and two additional test pits were excavated in the area of the pump island. Analysis results from the soil samples collected from the test pits indicated concentrations of PHCs exceeded the applicable regulatory criteria. NTL recommended a Phase II ESA be conducted to further assess the extent of PHCs impacted soils beneath the site.

2.4 Objectives and Scope of Work

The objective of the Phase II ESA was to confirm the presence of substances of concern (PHCs, VOCs, metals, PCBs, and PAHs) identified during the Phase I ESA. The Phase II ESA was carried out in general accordance with practices identified in the Canadian Standards Association document Z769-00, Phase II Environmental Site Assessment (CSA, 2008) and included the following:

- Coordinating utility locates;
- Observing and directing the advancement of eight test pits;
- Observing and directing the advancement of 17 boreholes at the site and completing 13 of the 17 boreholes as monitoring wells;
- Conducting soil field screening and sampling and submitting selected soil samples to an accredited laboratory for chemical analyses;
- Collecting groundwater samples from all onsite monitoring wells and submitting all samples to an accredited laboratory for chemical analyses;
- Conducting hydraulic response testing on five of the onsite monitoring wells;
- Conducting a horizontal and vertical survey of the monitoring wells relative to site features;
- Reviewing and technically assessing the data collected; and
- Preparing this Phase II ESA report.

3.0 SITE INVESTIGATION METHODOLOGY

Site investigation activities took place between August 13 and 19, 2013. Prior to conducting any ground disturbance activities, underground utilities were located by MB1Call Incorporated of Winnipeg, Manitoba by August 13, 2013. Test pit, borehole and monitoring well locations were selected based on areas of potential environmental concern identified in the Phase I ESA.

3.1 Soil Investigation

The subsurface soil investigation was conducted between August 14 and 15, 2013 under the direction of Concentric personnel. A total of eight test pits and 17 boreholes were advanced at the site. Locations of test pits and boreholes were selected based on identified areas of potential environmental concern from the Phase I ESA (Concentric, 2013). Details regarding the specific methodologies are described in the following sections.

During the test pitting and drilling activities, soil samples were logged using the modified Unified Soil Classification System. Soil samples were collected at regular depth intervals, in addition to when there was a change in soil colour, texture, and/or indication of possible contaminants. At the time of collection, each soil sample was split in the field where half of the sample was placed in laboratory supplied jars and stored in coolers with ice for possible laboratory analysis and the other half of the sample was placed in sealed food grade plastic bags for field screening of headspace organic vapour concentrations (OVCs). Headspace OVCs were measured and recorded from the bag sample headspace using a MiniRAE photoionization detector (PID) organic vapour meter, calibrated to an isobutylene standard. OVCs were measured in parts per million (ppm) and recorded on the borehole logs. The results of the headspace OVC analysis were used in the selection of samples for laboratory analysis.

3.1.1 Test Pits

Concentric observed and directed the advancement of eight test pits at the site (13-TP1 to 13-TP8; Figure 3). Test pits were excavated using a track-mounted excavator, supplied and operated by Polar Enterprises Incorporated of Hadashville, Manitoba. Each test pit measured approximately 1.5 m by 3.5 m and was advanced to equipment reach, between 1.7 and 3.0 m below ground surface (bgs).

Test pit soil samples were collected from the wall of the test pit and from each soil type encountered. Samples were collected from the center of the bucket to avoid mixing with previous soils.

Upon completion of field logging and soil samples collection, the test pits were backfilled (with the excavated soil) in reverse order, and compacted using the excavator bucket.

A total of 27 soil samples were collected throughout the test pitting activities and split at the time of collection, for relative headspace organic vapour measurements and possible laboratory analysis, using the methodology described above. Ten test pit soil samples were submitted under chain of custody documentation to ALS Laboratories Limited (ALS) of Winnipeg, Manitoba and placed on hold for potential laboratory analysis. In total, seven test pit soil samples were selected for analysis of metals and PAHs.

3.1.2 Borehole Drilling

Concentric directed the advancement of 17 boreholes at the site on August 14 and 15, 2013 (13-MW1 to 13-MW11, 13-BH12 to 13-BH15, 13-MW16 and 13-MW17; Figure 4). Exterior boreholes were advanced using a truck-mounted auger drill rig and interior boreholes (13-MW1 and 13-MW2) were advanced using a track-mounted auger drill rig, both supplied and operated by Paddock Drilling Limited of Winnipeg Manitoba. The drill rigs were equipped with a split spoon sampler to collect overburden soil samples for field screening and possible chemical analyses.

A total of 113 soil samples were collected throughout the drilling activities and split at the time of collection, for relative headspace organic vapour measurements and possible laboratory analysis, using the methodology described above. Of the 113 soil samples, 58 borehole soil samples were submitted under chain of custody documentation to ALS on hold for potential laboratory analysis. In total, 23 borehole soil samples were selected for analysis of PHCs (including BTEX and PHC fractions F1 to F4), metals, PAHs and/or PCBs.

Drill cuttings were collected in onsite soil bags. The soil bags were transported to the southern end of the Public Works Yard to await appropriate disposal.

3.2 Monitoring Well Installation

Thirteen boreholes advanced at the site were completed as monitoring wells (13-MW1 to 13-MW11, 13-MW14 and 13-MW15). Monitoring well construction consisted of threaded 50

mm diameter, schedule 40 polyvinylchloride (PVC) well screens and riser pipe. For all monitoring wells, the screened interval was placed to intercept the perceived location of the water table (based on field observations). A threaded cap was fitted to the bottom of the well screen and a clean quartz sand pack was placed around each well screen to approximately 0.3 m above the screened interval. A bentonite seal was then placed above the sand pack to ground surface, to prevent surface water infiltration into the monitoring wells and packs. All monitoring wells were capped with threaded caps and were completed below grade with flushmount protective casings.

3.3 Groundwater Monitoring and Sampling

Following installation of the monitoring wells, Concentric personnel developed all monitoring wells using dedicated Waterra™ tubing and foot valves. Wells were developed to ensure that subsequent groundwater samples collected were representative of overburden groundwater conditions. Well development was accomplished by removing water from the wells at a rate fast enough to hydraulically stress the formation and to re-suspend and extract sediment from the bottom, where present. The tubing intake (foot valve) was positioned at the bottom of each well and was agitated during pumping to disturb and extract any sediment. Wells were developed until the purge waters were relatively sediment free or a minimum of six standing well water volumes were removed from each well.

Concentric personnel measured the depth to groundwater in all monitoring wells on August 19, 2013. A Heron Instruments electronic oil-water interface and water level probe was used for this task. Concentric recorded the depth to the nearest mm from the highest point of the well riser. The water level probe was cleaned with an Alconox and water solution and then rinsed with distilled water between each well to prevent cross contamination.

Groundwater samples were collected from all producing monitoring wells on August 19, 2013. Prior to sampling, each well was purged of standing water to ensure representative groundwater samples were collected. Groundwater sampling was conducted using dedicated Waterra™ tubing and foot valves. Samples were collected in laboratory supplied sample containers, stored in coolers with ice packs and submitted under chain of custody documentation to ALS for laboratory analysis of PHCs (including BTEX and PHC fractions F1 to F4), metals, PAHs and/or PCBs.

All purge water was deposited into an onsite storage drum which was located at the southern end of the Public Works Yard.

3.4 Site Survey

The locations of all test pits and boreholes/monitoring wells were referenced to existing site features. Laser level survey equipment was used to survey the monitoring well top of casing (TOC) and ground surface elevations as part of the site survey.

3.5 Hydraulic Response Testing

Hydraulic response tests were conducted on monitoring wells 13-MW2, 13-MW9, 13-MW10 and 13MW-14 on August 17, 2013 and 13MW-5 on August 18, 2013. The tests involved rapidly removing water from the well and monitoring the well recovery with time. The Bouwer and Rice (1976) method for partially penetrating wells was used to calculate the hydraulic conductivity of material at the well screen.

3.6 Quality Assurance/Quality Control

A quality assurance and quality control (QA/QC) program was followed to ensure that the sampling and analytical data were interpretable, meaningful and reproducible. Two stages of QA/QC were completed, with one stage completed as part of the standard field procedures performed by Concentric and the other completed by the laboratory.

3.7 Field Sampling Quality Assurance/Quality Control

Soil and groundwater samples for laboratory analysis were placed in appropriate laboratory-supplied, clean sample containers and labeled with the project name and number, date, sample location identification, and type of analyses required. After collection, all samples were placed in laboratory-supplied, insulated coolers with ice packs and submitted to ALS under a chain-of-custody. Field sampling was completed according to standard protocols, including:

- Cleaning sampling equipment with alconox and rinsing with clean water between each sample;
- Donning a new pair of nitrile gloves between collection of samples;
- Using dedicated monitoring well sampling equipment; and,
- Calibration of field equipment prior to use.

To demonstrate that the field sampling techniques utilized by Concentric personnel are capable of yielding reproducible results and to verify the reproducibility of the laboratory analyses, Concentric completed analysis of two trip blanks (TBs) and collected blind duplicate (BD) samples for approximately 10% of the total number of samples collected. ALS provided Concentric with a TB of distilled groundwater. The TB was brought to the site, kept on ice in the same cooler as the collected samples and returned to ALS for analyses of PHCs, PAHS and VOCs. One soil and two groundwater BDs were collected by evenly splitting the original samples into two sets of sample containers at the time of sampling, one set with the sample identification, and the other under blind label. The BD samples were analysed for select parameters which were the same as the original samples.

3.8 Laboratory Analytical Quality Assurance/Quality Control

All samples were analyzed by ALS, a Canadian Association of Environmental Analytical Laboratories (CALA) accredited laboratory that uses Ministry of Environment recognized methods to conduct laboratory analyses. As conveyed by the laboratory, method blanks, control standards samples, certified reference material standards, method spikes, replicates, duplicates and instrument blanks are routinely analyzed as part of their internal QA/QC programs. As an internal quality control measure, the project laboratory reports the results of laboratory prepared QA/QC analyses. If these criteria are not met, the laboratory is asked by Concentric to either re-analyze the affected samples or qualify the results.

4.0 EVALUATION CRITERIA

As noted in Section 2.4, Concentric has undertaken this Phase II ESA in accordance with Canadian Standards Association document Z769-00, Phase II Environmental Site Assessment (CSA, 2008). The evaluative process for the assessment has therefore followed that of the CSA Standard. This has involved comparison of data to established/acceptable guidelines which, in Manitoba, is dictated by Manitoba Conservation and Water Stewardship (MCWS).

MCWS's Guideline 98-01 "Environmental Site Investigations in Manitoba" (1998, rev. 2002), provides guidance on comparison of investigation results to criteria. As per Guideline 98-01, Manitoba follows a Tiered approach whereby Tier 1 is based on generic criteria, Tier 2 is based on site specific objectives and Tier 3 is based on risk assessment.

Concentric has selected Tier 1 evaluation which has involved comparison of contaminant concentrations to published Environmental Quality Guidelines (EQG).

For evaluation of soil analytical results, Concentric used MCWS's default EQG which are the Canadian Council of Ministers of the Environment (CCME) Canadian Soil Quality Guidelines (SQG) for the Protection of Environmental and Human Health (1999, 2007, 2010) and the CCME Canada-Wide Standards (CWS) for Petroleum Hydrocarbons (PHC) in Soil (2001, rev. 2008). Where available, the soil analytical results were compared to fine-grained soil criteria for residential/parkland land use given the existing zoning and surrounding land uses.

For evaluation of groundwater analytical results, Concentric used Ontario's *Table 9 Generic Site Condition Standards for Use within 30 m of a Water Body in a Non-potable Groundwater Condition* from the "Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" (MOE, 2011). Table 9 standards were considered most representative for evaluation of groundwater conditions for the following reasons:

- Manitoba does not have provincial EQG for groundwater and MCWS accepts standards published under Ontario's Record of Site Condition regulatory framework.
- Despite the drainage channel on-site being dry at the time of assessment and suspected to contain surface water run-off only on a seasonal basis, Table 9 is intended for evaluation of groundwater within 30 metres of a "permanent" surface water feature and thus presents conservative yet reasonable evaluation standards in the absence of definitive geomorphological and biological data on the drainage channel.
- Table 9 takes into account the potential for groundwater discharge to a surface water body and assumes that there is no dilution in the groundwater for the aquatic protection pathway.
- Table 9 factors in a non-potable groundwater situation.

5.0 SITE INVESTIGATION RESULTS

5.1 Soil Stratigraphy

The soil stratigraphy as observed from the borehole drilling and test pitting activities generally consisted of up to 50 cm of either asphalt cover and associated gravel pack or sand (unpaved areas) which was underlain by brown silty clay to depths between 0.4 and 2.3 m bgs. A clay and silt layer followed to depths up to 2.4 m bgs which was underlain by very firm clay (with trace silt) to the maximum depth of the investigation of 4.55 m bgs. Bedrock was not encountered during the drilling or test pitting activities. Further details on soil stratigraphy are provided on the borehole and test pit logs located in Appendix A.

5.2 Soil Quality

5.2.1 Field Observations

OVCs ranged from below the instrument detection limit (several locations) to 642 ppm (13-BH16, 0 to 0.6 m bgs). The measured OVCs from all soil samples collected were generally less than 20 ppm with the exception of the soil samples collected from 13-BH16 and 13-MW11, located in the vicinity of the former USTs. Olfactory and visual evidence of PHCs was also identified in these boreholes. Results of OVC screening are included in borehole and test pit logs (Appendix A).

5.2.2 Soil Analytical Results

The soil analytical results are summarized in Table 1 (PHCs), Table 2 (metals), Table 3 (PAHs), and Table 4 (PCBs). Soil Analytical Reports are provided in Appendix B.

The soil analytical results indicated that concentrations of all parameters analyzed were below the applicable CCME SQG and CWS with the exception of nickel and PHC parameters at select locations, which are discussed further below and presented on Figure 5.

- The soil sample collected from 13-MW11 (1.8 to 2.4 m) contained concentrations of ethylbenzene, xylenes and PHC F1 exceeding the CCME criteria and the deeper soil sample collected from this borehole (2.4 to 3.0 m) also contained an ethylbenzene concentration exceeding the CCME criteria. All other parameters measured at this location returned concentrations below the applicable CCME criteria.

- The soil sample collected from 13-BH16 (0.6 to 3.0 m) contained concentrations of one or more PHC parameters exceeding the CCME criteria:

    - The sample collected from 0.6 to 1.2 m contained BTEX and PHC F2 concentrations exceeding the CCME criteria.

    - The samples collected from 1.2 to 1.8 m and from 2.4 to 3.0 m contained BTEX, PHC F1 and F2 concentrations exceeding the CCME criteria.

- The sample collected from 1.8 to 2.4 m contained BTEX concentrations exceeding the CCME criteria.

- The soil sample collected from 13-TP1 (0.7 to 1.4 m) contained a nickel concentration exceeding the CCME criteria.

5.2.3 Soil Quality Evaluation

PHC Impacts

Figure 5 identifies the sample locations where BTEX and PHC parameters exceeded the applicable CCME criteria. As shown on Figure 5, two boreholes advanced in the vicinity of the former USTs and pump island contained BTEX and PHC parameter concentrations exceeding the applicable CCME criteria.

Based on the data collected as part of this Phase II ESA, Concentric has calculated an estimated volume of PHC impacted soil which will be presented to the City under a separate cover. This estimate will also be provided in a Remedial Action Plan (RAP) for the site.

Nickel

The nickel concentration in the soil sample collected from test pit 13-TP1 was one of nine soil samples collected across the site that were submitted for laboratory analyses of a suite of metals parameters. Of the nine soil samples, nickel at 13-TP1 was the only metals parameter that exceeded the CCME SQG. The concentration of nickel in this sample was 61 mg/kg versus the CCME SQG standard of 50 mg/kg.

Concentric does not consider the nickel concentration at 13-TP1 to be a significant concern that warrants further delineation or remedial action for the following reasons:

- The CCME SQG for nickel in soil is based on environmental health (e.g. plant uptake and microorganisms) and the limiting pathway is soil contact. Given the current and proposed land use at the site (i.e. parking lot) it is unlikely that nickel at the concentration measured at 13-TP1 would have any significant impact on environmental receptors through soil contact.

- Published literature by Agriculture Canada suggests that southern Manitoba soils can naturally contain up to 98 mg/kg of nickel, particularly poorly drained clay soils (Agriculture Canada, 1998).

- The published criterion for nickel in a commercial land use exposure scenario in Ontario's Full Depth Background Site Condition Standards is 82 mg/kg. These background standards are considered representative of upper limits of typical Ontario-wide background concentrations in soils that are not contaminated by point sources.

In the absence of a similar framework in Manitoba, the Ontario background condition standard for nickel is contextually relevant.

- Nickel concentrations in groundwater samples collected at the site (including one collected in proximity to 13-TP1) did not exceed relevant criteria.

5.3 Groundwater and Surface Water Conditions

Groundwater

Water levels were measured in all monitoring wells installed at the site. The groundwater monitoring results are summarized on Table 5. Monitoring wells 13-MW6 and 13-MW7 were found to be dry during the August 19th sampling event. The groundwater levels in all other monitoring wells ranged from 0.98 m bgs (13-MW8) to 3.67 m bgs (13-MW1). Groundwater levels were converted to elevations and are posted and contoured on Figure 6 (13-MW1 was not used in preparing contours for the site, as the measurement appeared anomalous). Based on Figure 6, the inferred groundwater flow direction is generally towards the northwest portion of the property under an average horizontal hydraulic gradient of 0.062 m/m.The results from the hydraulic response tests indicated hydraulic conductivity values for monitoring wells 13-MW2, 13-MW5, 13-MW9, 13-MW10, 13-MW14 ranged from 2.4×10^{-8} to 1.1×10^{-6} m/s (Table 5 and Appendix C). The geometric mean of all hydraulic conductivity values calculated for the site to date is 1.1×10^{-7} m/s.

The groundwater flow can be determined based on Darcy's Law: $V = Ki/n$

Where:

V = average linear groundwater velocity (m/s)

K = hydraulic conductivity (m/s)

i = hydraulic gradient (m/m)

n = porosity of the aquifer materials

Based on the calculated geometric mean hydraulic conductivity (K) of 1.1×10^{-7} m/s, a calculated average hydraulic gradient (i) of 0.062 m/m, and an assumed effective porosity (n) of the silt and clay of 0.10 (Freeze and Cherry, 1979), the calculated groundwater flow velocity is approximately 2.2 m/year.

Surface Water

At the time of the field investigation, no running or standing water was observed in the portion of the drainage channel that traverses the west side of the site. Based on this observation it is assumed that the drainage channel is intermittent (seasonal flowing).

Although groundwater flow is considered to be in the general direction of the drainage channel, the drainage channel is assumed to be primarily influenced by surface water runoff from the head of the channel which is located at the southeast corner (entrance) of the Bonivital Pool property. Given the channel was dry at the time of the assessment and likely dry much of the year, it is unlikely that groundwater discharges to the drainage channel with the exception of possible infiltration during high water conditions in the spring months. Despite this assumption, as indicated in Section 4, Concentric has selected Ontario's Table 9 criteria for sites within 30 metres of a "permanent" surface water body as a conservative yet reasonable evaluation of groundwater quality.

5.4 Groundwater Quality

The groundwater analytical results are summarized in Table 6 (PHCs), Table 7 (VOCs), Table 8 (metals), Table 9 (PAHs) and Table 10 (PCBs). Groundwater Analytical Reports are provided in Appendix D.

The groundwater analytical results indicated that concentrations of all parameters analyzed were below the applicable Table 9 criteria with the exception of PHC parameters measured in the samples collected from 13-MW10 and 13-MW11. PHC F3 and F4 concentrations exceeded the MOE Table 9 standards in the sample collected from 13-MW10 and benzene, xylenes, PHC F1 and F2 concentrations exceeded the MOE Table 9 standards in the sample collected from 13-MW11 (Figure 7).

5.4.1 Groundwater Quality Evaluation

As noted on Figure 7, 13-MW10 and 13-MW11 are located in the vicinity of the former pump island and USTs. The elevated PHC and BTEX parameters in groundwater at these locations generally corroborates with the soil impacts identified in the area.

Full delineation of PHC/BTEX impacts in groundwater associated with the former USTs and pump island was beyond the scope of this Phase II ESA. Additional boreholes and groundwater monitoring locations will be required as a condition of the RAP in order to ensure full delineation of dissolved PHC impacts is achieved and appropriate post-remedial monitoring of groundwater conditions is carried out.

6.0 QUALITY ASSURANCE/QUALITY CONTROL RESULTS

6.1 Trip Blank Results

Analysis of the TB sample resulted in no detectable levels of PHCs, PAHs or VOCs, indicating that the sample was not contaminated as a result of onsite activities (Tables 7, 9 and 10).

6.2 Blind Duplicate Results

For all BDs and laboratory prepared duplicates, the relative percent difference (RPD) was calculated as a measure of QA/QC, based on the analytical results of the BD and laboratory duplicate analyses. The RPD is defined as the difference between the duplicate results divided by the mean of the results, expressed as a percentage, given by the following formula:

$$RPD = (|X_1-X_2|/X_{avg}) \times 100$$

where X_1 and X_2 are the duplicate concentrations and X_{avg} is the mean of these two values. Analytical error increases near the method detection limit (MDL); therefore the RPD is not normally calculated unless the concentrations of both the original and duplicate samples are greater than 5 times the MDL. Generally accepted RPDs for soil and groundwater are 40% and 30%, respectively, but can vary by parameters analysed. If the RPD for a sample and its duplicate did not meet Concentric's RPD standards for the parameters analysed, an explanation is provided to qualify the difference in values. The results of the data validation are presented in Table 11 for soil, and Table 12A to C for groundwater.

6.2.1 Soil QA/QC

One BD soil sample was submitted for analysis as part of the soil sampling program. The BD duplicate of sample 13-BH16-2 was analysed for PHCs (including F1 to F4 fractions and BTEX). The results of the soil BD analyses are summarized in Table 11.

With the exception of xylenes, all other parameters analyzed were deemed to be acceptable. The poor reproducibility of xylenes was likely attributed to not collecting homogeneous duplicate samples.

6.2.2 Groundwater QA/QC

One BD groundwater sample was collected from monitoring wells 13-MW2 and submitted for analysis of PAHs and one BD groundwater sample was collected from monitoring well 13-MW11 and submitted for analysis of PHCs and metals as part of the groundwater sampling program. Results of the groundwater BD analyses are summarized in Table 12A to C.

With the exception of titanium, all other parameters analyzed were deemed to be acceptable. The poor reproducibility of titanium concentrations measured in both the original and duplicate samples collected from 13-MW11 is attributed to metals adhering to fine soil particles within the water sample, thereby biasing the results The acceptable RPDs confirm the analytical results and the reproducibility of the field sampling protocol.

6.3 Laboratory QA/QC

The laboratory reported the results of their internal QA/QC (laboratory duplicate samples) with RPDs within acceptable limits, or as non-calculable (i.e. non-detect concentrations in original and duplicate samples), verifying the reproducibility of the laboratory analytical methods. Laboratory QA/QC results are included in the laboratory reports (Appendix B for soil and Appendix D for groundwater).

7.0 SUMMARY AND CONCLUSIONS

Based on the results of the Phase II ESA, the following summary and conclusions are presented:

- A total of eight test pits and 17 boreholes were advanced at the site, and 13 of the boreholes were completed as groundwater monitoring wells.
- The site stratigraphy generally consists of up to 0.5 m of asphalt and/or gravel cover or sand (unpaved areas), underlain by brown silty clay to depths of between 0.4 and 2.4 m bgs. This was followed by clay and silt to depths up to 2.4 m bgs and very firm clay (with trace silt) to the maximum depth of the investigation (4.55 m bgs).
- The OVC measurements ranged from below the instrument detection limit to 642 ppm and olfactory and visual evidence of PHCs was identified in several soil samples collected for boreholes 13BH-11 and 13BH-16 in the vicinity of the former USTs and pump island during the investigation.
- Soil analytical results indicated that concentrations of one or more PHC parameters exceeded applicable CCME guidelines in several soil samples collected in the vicinity of the former USTs and pump island (13-MW11 and 13-BH16). All other parameters measured in the soil samples analyzed were below the applicable guidelines with the exception of a slightly elevated concentration of nickel in a sample collected from testpit 13-TP1 located on the west side of the storage yard. The concentration of nickel at this location is not considered a significant concern requiring further delineation or remedial action.
- Based on data collected as part of this Phase II ESA, Concentric has calculated an estimated volume of PHC impacted soil in the vicinity of the former USTs and pump island. This volume will provided to the City under a separate cover.
- At the time of the site investigation, no running or standing water was observed in the portion of the drainage channel that traverses the western portion of the site. It is assumed that the drainage channel is an intermittent (i.e. seasonal) flowing channel. Although groundwater flow at the site is approximately towards the drainage channel Concentric believes the drainage channel is primarily influenced by surface water runoff as opposed to groundwater infiltration.
- Groundwater analytical results indicated that concentrations of PHC parameters exceeded MOE Table 9 standards in the samples collected from monitoring wells installed in the vicinity of the former USTs and pump island (13-MW10 and 13-MW11).
- All other parameters measured in the groundwater samples analyzed were below the applicable criteria.

8.0 RECOMMENDATIONS

Based on the results of this Phase II ESA, Concentric recommends the following:

- Develop a RAP to address the PHC/BTEX impacted soil and groundwater in the vicinity of the former USTs and pump island. The recommended remedial option based on the results of the Phase II ESA and previous work completed in the area by others is likely to involve excavation and off-site disposal of soil. Containment, collection and off-site disposal (or on-site treatment) of impacted groundwater will also be detailed in the RAP.

- Further characterize groundwater conditions in the vicinity of the USTs and pump island (remedial area) to enhance delineation and monitor residual dissolved PHC impacts in the shallow groundwater beneath the site. This will involve installation of new monitoring wells and will be detailed in the RAP.

9.0 REFERENCES

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10.0 LIMITATIONS

This report was prepared exclusively for the purposes, project and site locations outlined in the report. The report is based on information provided to, or obtained by Concentric Associates International Incorporated, as indicated in the report, and applies solely to site conditions existing at the time of this report. The sampling plan was formulated by Concentric represents a reasonable plan in response to the review of available information within an established work scope, schedule and budget. It is therefore possible that currently unrecognized contamination or potentially hazardous materials may exist at the site, and the levels of contamination or hazardous materials may vary across the site. Further review and updating of the sampling plan may be required as local and site conditions, and the regulatory and planning frameworks, change over time.

This report was prepared by Concentric for the sole benefit of The City of Winnipeg. The material in it reflects Concentric's judgment in light of the information available to it at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Concentric accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Respectfully Submitted,

Concentric Associates International Incorporated

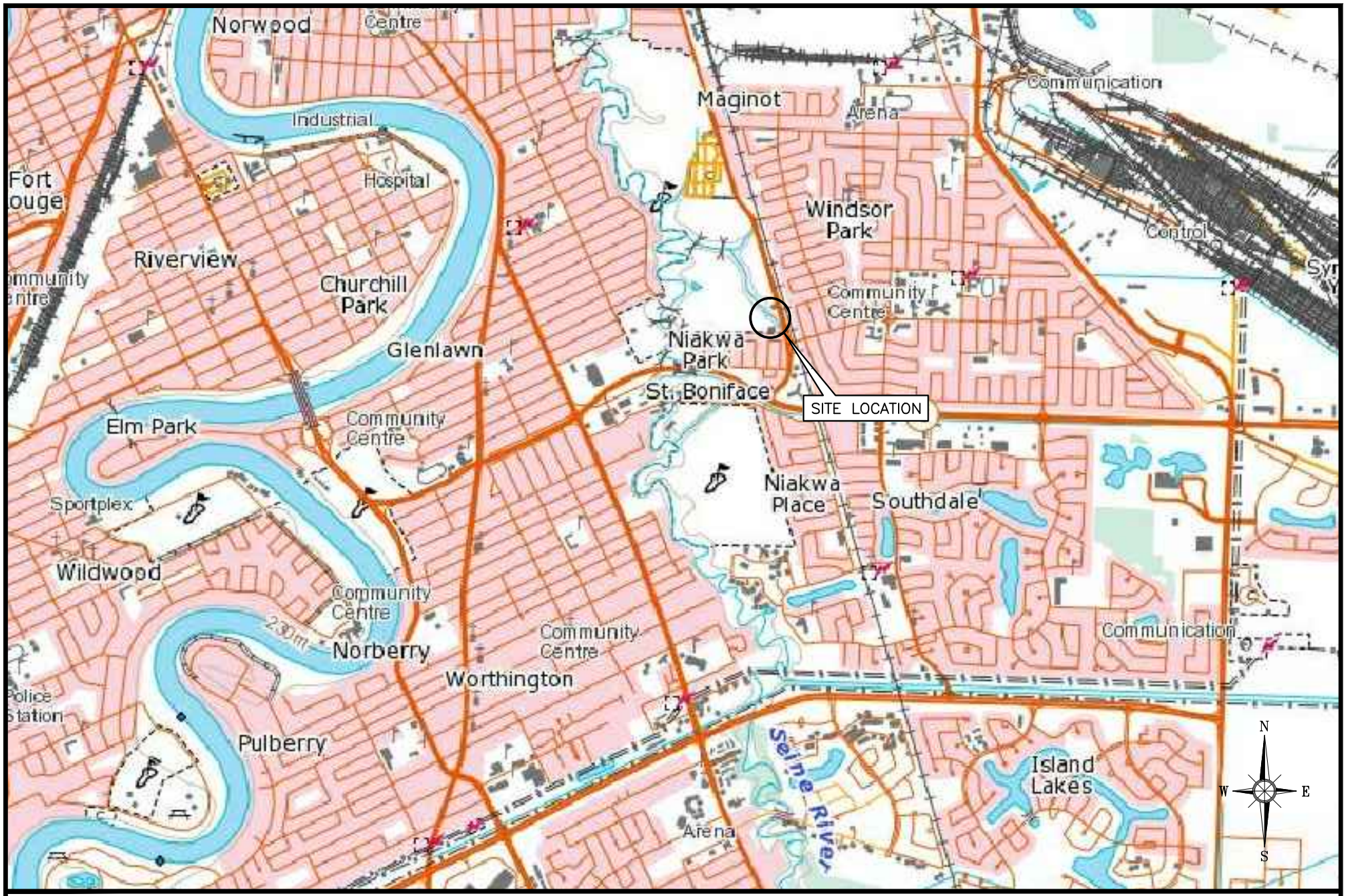
Andrea Johnson, M.Sc.Eng.

Jenifer Kelly, M.Sc., P.Eng. (ON)

Eric Shilts, P.Geo (limited, ON)

Russ Parker, P.Eng.

FIGURES



CONCENTRIC
ASSOCIATES INTERNATIONAL
INCORPORATED

OTTAWA LONDON IQALUIT
SASKATOON WINNIPEG

CLIENT NAME:
CITY OF WINNIPEG

PROJECT ADDRESS:
1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

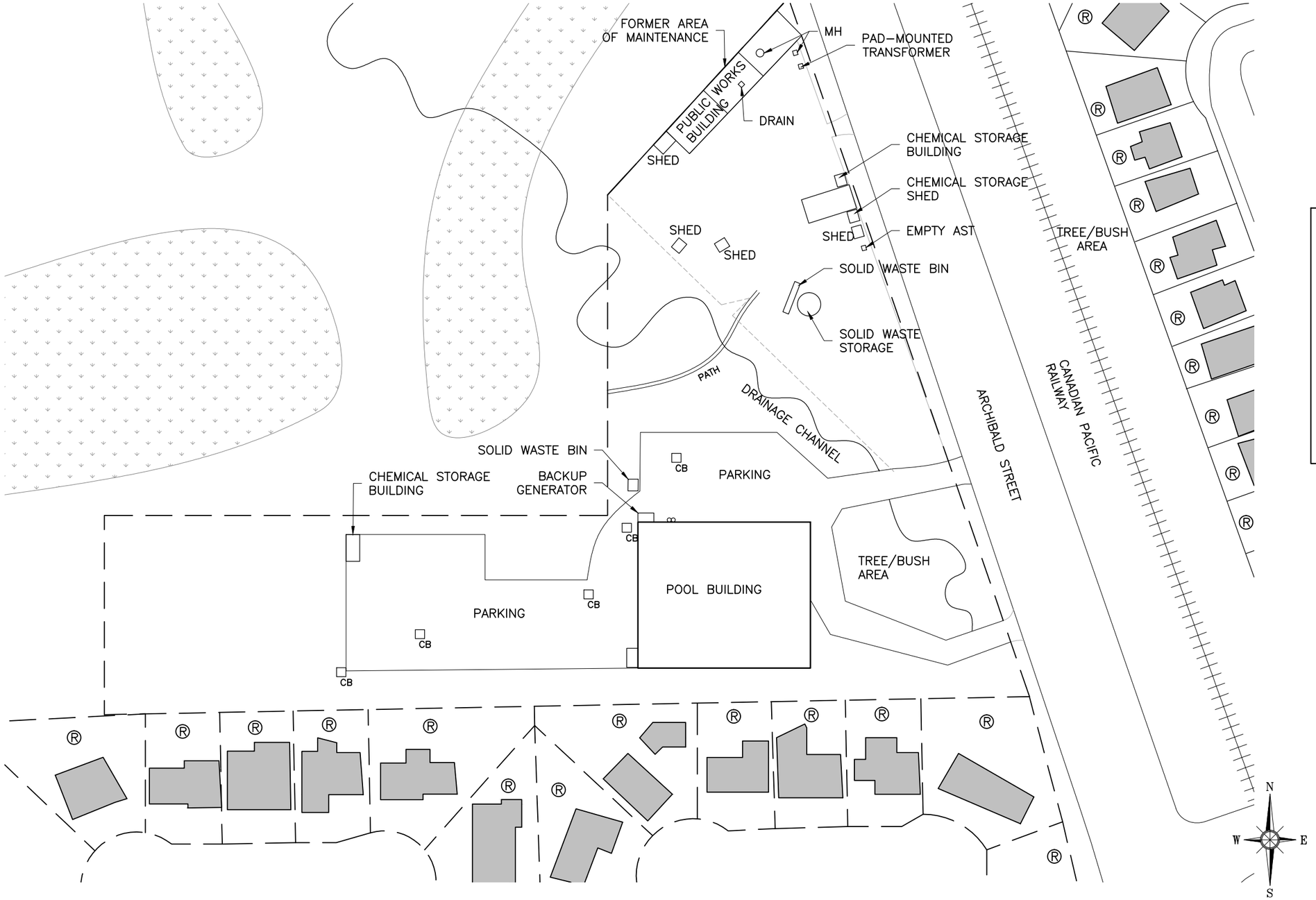
PROJECT NAME:
PHASE II ESA

DRAWING TITLE:
SITE LOCATION MAP

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

SHEET No.

FIG-1



LEGEND:

- RAIL LINE
- APPROXIMATE PROPERTY BOUNDARY
- CB — CATCH BASIN
- MANHOLE
- Ⓡ — RESIDENTIAL PROPERTY

SCALE: NOT TO SCALE

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME: CITY OF WINNIPEG

PROJECT ADDRESS: 1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME: PHASE II ESA

DRAWING TITLE: SITE PLAN

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-2

SCALE: NOT TO SCALE

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME: CITY OF WINNIPEG

PROJECT ADDRESS: 1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME: PHASE II ESA

DRAWING TITLE: TEST PIT LOCATIONS

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-3

SCALE: NOT TO SCALE

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME: CITY OF WINNIPEG

PROJECT ADDRESS: 1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME: PHASE II ESA

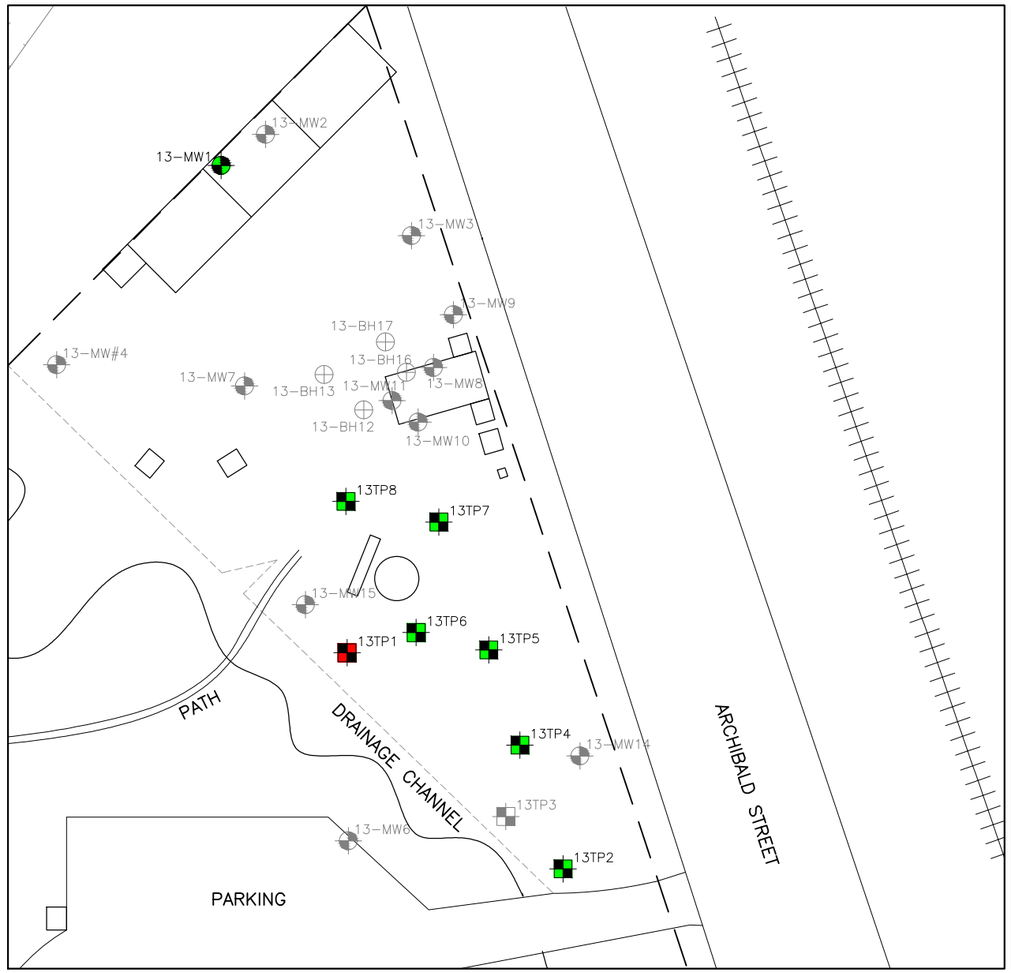
DRAWING TITLE: BOREHOLE / MONITORING WELL LOCATIONS

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-4

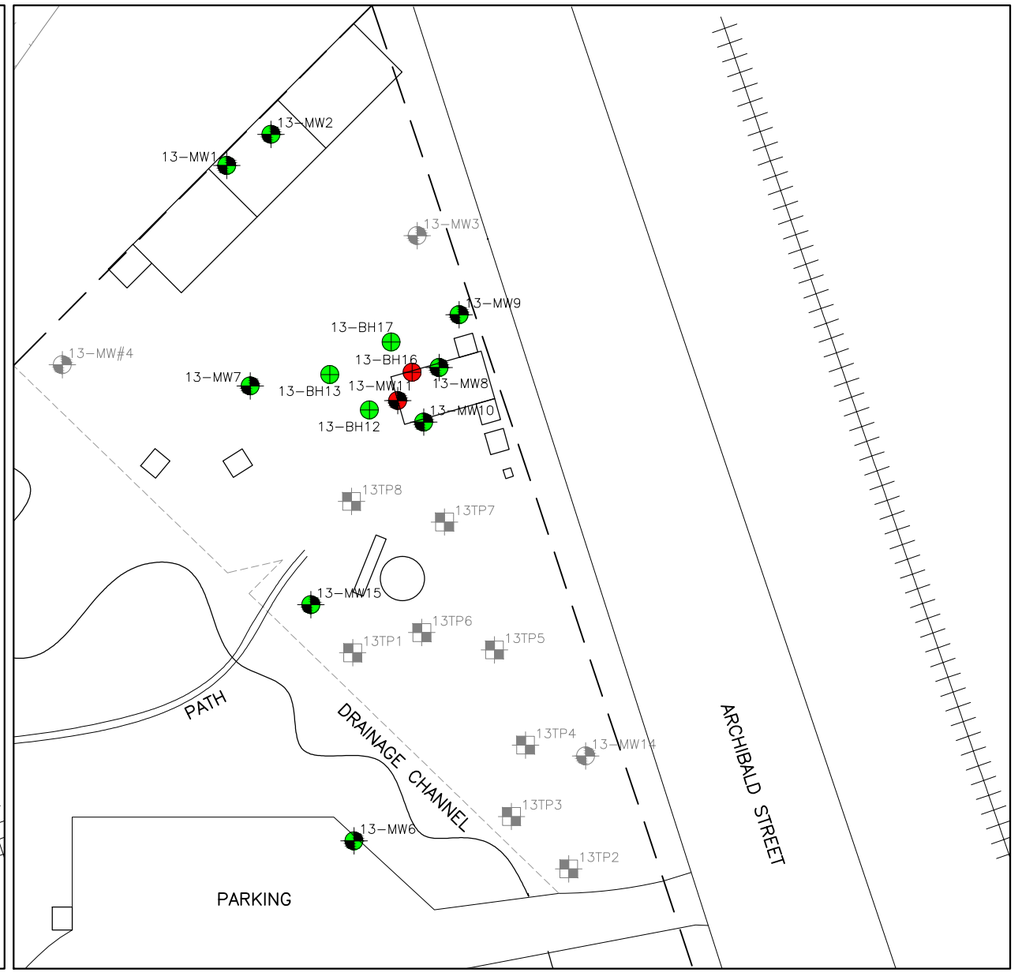


SOIL METAL IMPACTS

SCALE: NOT TO SCALE

NOTE:

- SOIL METAL CONCENTRATIONS MEET CCME GUIDELINES
- SOIL METAL CONCENTRATIONS EXCEEDS CCME GUIDELINES



SOIL PHC IMPACTS

SCALE: NOT TO SCALE

NOTE:

- SOIL PHC CONCENTRATIONS MEET CCME GUIDELINES
- SOIL PHC CONCENTRATIONS EXCEEDS CCME GUIDELINES

LEGEND:

- 13–BH# — APPROXIMATE LOCATION OF BOREHOLE
- 13–MW# — APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY
- 13TP# — APPROXIMATE LOCATION OF TEST PIT

N W E S

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME: CITY OF WINNIPEG

PROJECT ADDRESS: 1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME: PHASE II ESA

DRAWING TITLE: SOIL EXCEEDANCES

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-5

SCALE: NOT TO SCALE

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME:
CITY OF WINNIPEG

PROJECT ADDRESS:
1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME:
PHASE II ESA

DRAWING TITLE:
GROUNDWATER FLOW MAP- AUGUST 19, 2013

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-6

LEGEND:

- 13–BH# — APPROXIMATE LOCATION OF BOREHOLE
- 13–MW# — APPROXIMATE LOCATION OF MONITORING WELL
- APPROXIMATE PROPERTY BOUNDARY
- 13TP# — APPROXIMATE LOCATION OF TEST PIT
- GROUNDWATER PHC CONCENTRATION MEET MOE TABLE 9 STANDARDS
- GROUNDWATER CONCENTRATIONS EXCEED MOE TABLE 9 STANDARDS
- ? — AREAS REQUIRING FURTHER DELINEATION OF POSSIBLE PHC IMPACTS IN GROUNDWATER

SCALE: NOT TO SCALE

CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED

OTTAWA LONDON IQALUIT SASKATOON WINNIPEG

CLIENT NAME: CITY OF WINNIPEG

PROJECT ADDRESS: 1201 & 1215 ARCHIBALD ST, WINNIPEG, MB

PROJECT NAME: PHASE II ESA

DRAWING TITLE: GROUNDWATER PHC EXCEEDANCES

DESIGN: AJ
DRAWN: STM
DATE: SEP/2013
FILE No: 13-5107-E

NO.	REVISION	DATE
1		MTH. DD, YYYY
2		
3		

SHEET No.

FIG-7

TABLES

TABLE 1 SOIL QUALITY RESULTS - PETROLEUM HYDROCARBONS

Sample Location	Sample Depth (m)	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	F1 C_6 - C_{10} mg/kg	F2 $C_{>10}$ - C_{16} mg/kg	F3 $C_{>16}$ - C_{34} mg/kg	F4 $C_{>34}$ - C_{50} mg/kg
13-MW1	0.13 - 0.76	08/15/2013	3:30pm	5107150813100	L1348992-1	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW2	0.15 - 0.76	08/15/2013	4:30pm	5107150813107	L1348992-4	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW6	1.2 - 1.8	08/15/2013	10:30am	5107150813083	L1348143-7	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW7	1.8 - 2.4	08/15/2013	12:00pm	5107140813042	L1348143-12	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW8	1.2 - 1.8	08/14/2013	11:00am	5107140813010	L1347940-4	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	827	885
13-MW9	2.4 - 3.0	08/14/2013	10:00am	5107140813005	L1347940-2	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW10	2.4 - 3.0	08/14/2013	1:00pm	5107140813019	L1347940-8	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW11	1.2 - 1.8	08/14/2013	1:30pm	5107140813026	L1348902-1	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-MW11	1.8 - 2.4	08/14/2013	1:45pm	5107140813025	L1348902-2	17-Aug-13	0.0052	<0.050	***5.1***	***12.1***	***333***	73	<50	<50
13-MW11	2.4 - 3.0	08/14/2013	3:15pm	5107140813024	L1348902-8	17-Aug-13	<0.0050	<0.050	***0.079***	0.64	<10.0	<25	<50	<50
13-MW11	3.0 - 3.5	08/14/2013	3:30pm	5107140813027	L1348902-9	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-BH12	1.2 - 1.8	08/14/2013	4:00pm	5107140813031	L1348902-11	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-BH12	1.8 - 2.4	08/14/2013	4:15pm	5107140813032	L1348902-12	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-BH13	1.2 - 1.8	08/14/2013	4:45pm	5107140813036	L1348902-14	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	64.00
13-MW15	2.4 - 3.0	08/15/2013	9:00am	5107150813071	L1348143-2	20-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
13-BH16	0.6 - 1.2	08/15/2013	1:25pm	5107150813091	L1348902-27	17-Aug-13	***0.526***	***7.86***	***4.64***	***35.4***	190	***323***	157	<50
13-BH16	1.2 - 1.8	08/15/2013	1:35pm	5107150813092	L1348902-28	17-Aug-13	***0.454***	***18.6***	***14.60***	***110***	***550***	***551***	109	<50
13-BH16	1.8 - 2.4	08/15/2013	1:45pm	5107150813093	L1348902-29	17-Aug-13	***0.215***	***0.581***	***2.38***	***7.42***	49	74	<50	<50
13-BH16	2.4 - 3.0	08/15/2013	2:05pm	5107150813095	L1348902-31	17-Aug-13	***0.622***	***27.4***	***20.4***	***173***	***680***	***430***	124	<50
13-BH17	1.8 - 2.4	08/15/2013	1:35pm	5107150813098	L1348902-34	17-Aug-13	<0.0050	<0.050	<0.015	<0.050	<10.0	<25	<50	<50
						CCME CWS-PHC	**NS**	**NS**	**NS**	**NS**	**210**	**150**	**1300**	**5600**
						CCME SQG	**0.0068**	**0.08**	**0.018**	**2.4**	**NS**	**NS**	**NS**	**NS**

Notes:
NS - not specified
\- - not analyzed
CCME CWS-PHC - Canadian Council of Ministers of the Envirnment (CCME) Canada Wide Standards (CWS) for Petroeum Hydrocarbons in Soils
CCME SQG Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SQG) for the Protection of Environmental and Human Health for fine grained soils under residential/parkland landuse
Italics - indicates values do not meet applicable guidelines

TABLE 2 - SOIL QUALITY RESULTS - METALS

Sample Name	Sample Depth (m)	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Antimony mg/kg	Arsenic mg/kg	Barium mg/kg	Beryllium mg/kg	Cadmium mg/kg	Chromium mg/kg	Cobalt mg/kg	Copper mg/kg	Lead mg/kg	Mercury mg/kg	Molybdenum mg/kg	Nickel mg/kg	Selenium mg/kg	Silver mg/kg	Thallium mg/kg	Tin mg/kg	Uranium mg/kg	Vanadium mg/kg	Zinc mg/kg
13-MW1	1.8 - 2.4	15-Aug-13	3:30pm	5107150813103	L1348992-2	30-Aug-13	0.26	4.3	95	0.51	0.239	25.5	8.34	19.8	8.26	<0.050	1.09	26.0	0.82	0.14	0.21	<5.0	0.88	43.0	43
13-MW5	2.4 - 3.0	15-Aug-13	10:00am	5107150813078	L1348143-5	26-Aug-13	0.50	9.63	259	0.95	0.310	36.2	12.4	35.3	13.9	<0.050	2.03	40.1	0.84	0.19	0.26	<5.0	2.07	56.7	81
13-TP1	0.7 - 1.4	15-Aug-13	8:15am	5107150813202	L1348902-16	26-Aug-13	0.42	7.29	182	0.89	0.421	35.8	15.0	31.4	11.9	<0.050	2.52	***60.7***	0.61	0.19	0.29	<5.0	1.55	56.7	72
13-TP2	1.0 - 1.7	15-Aug-13	9:00am	5107150813206	L1348902-19	26-Aug-13	0.42	8.25	189	1.04	0.282	44.5	15.0	36.1	15.2	0.050	2.01	45.1	0.72	0.22	0.31	<5.0	1.54	66.8	85
13-TP4	1.3 - 2.8	15-Aug-13	9:30am	5107150813213	L1348902-21	26-Aug-13	0.16	3.08	74.9	0.41	0.136	22.2	5.84	14.4	6.05	<0.050	0.359	17.2	0.58	0.12	0.15	<5.0	0.801	31.7	31
13-TP5	0.0 - 0.2	15-Aug-13	9:45am	5107150813214	L1348902-22	26-Aug-13	0.18	1.85	37.7	0.17	0.109	12.5	3.33	10.7	10.7	<0.050	0.372	9.80	0.65	<0.10	<0.10	<5.0	0.455	16.8	35
13-TP6	0.3 - 1.0	15-Aug-13	10:00am	5107150813218	L1348902-23	26-Aug-13	0.20	2.53	71.2	0.36	0.232	18.1	5.02	15.0	55.9	<0.050	0.379	14.6	0.67	<0.10	0.12	<5.0	0.530	27.0	59
13-TP7	0.25 - 1.25	15-Aug-13	10:15am	5107150813222	L1348902-24	26-Aug-13	0.34	7.76	181	0.87	0.257	40.6	12.5	27.1	12.8	<0.050	0.224	36.2	0.62	0.14	0.27	<5.0	0.821	73.0	73
13-TP8	0.55 - 2.9	15-Aug-13	10:30am	5107150813227	L1348902-25	26-Aug-13	0.22	5.94	67.5	0.34	0.158	17.5	4.90	13.5	5.64	<0.050	0.430	14.6	<0.50	0.10	0.15	<5.0	0.892	32.9	30
						CCME SQG	**20**	**12**	**500**	**4**	**10**	**64**	**50**	**63**	**140**	**6.6**	**10**	**50**	**1**	**20**	**1**	**50**	**23**	**130**	**200**

Notes:

NS - not specified

\- - not analyzed

CCME SQG Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SQG) for the Protection of Environmental and Human Health for fine grained soils under residential/parkland landuse

Italics - indicates values do not meet applicable guidelines

TABLE 3 - SOIL QUALITY RESULTS - POLYCYCLIC AROMATIC HYDROCARBONS

Sample Name	Sample Depth (m)	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Acenaphthene mg/kg	Acenaphthylene mg/kg	Acridine mg/kg	Anthracene mg/kg	Benzo(a)anthracene mg/kg	Benzo(a)pyrene mg/kg	Benzo(b&j)fluoranthene mg/kg	Benzo(b)fluoranthene mg/kg	Benzo(b,j,k)fluorathene mg/kg	Benzo(g,h,i)perylene mg/kg	Benzo(k)fluoranthene mg/kg	Chrysene mg/kg	Dibenzo(a,h)anthracene mg/kg	Fluoranthene mg/kg	Fluorene mg/kg	Indeno(1,2,3-cd)pyrene mg/kg	1-Methylnaphthalenes mg/kg	2-Methylnaphthalenes mg/kg	Naphthalene mg/kg	Phenanthrene mg/kg	Pyrene mg/kg	Quinoline mg/kg
13-MW1	1.8 - 2.4	15-Aug-13	3:30pm	5107150813103	L1348992-2	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-MW5	2.4 - 3.0	15-Aug-13	10:00am	5107150813078	L1348143-5	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-TP1	0.7 - 1.4	15-Aug-13	8:15am	5107150813202	L1348902-16	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-TP2	1.0 - 1.7	15-Aug-13	9:00am	5107150813206	L1348902-19	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-TP4	1.3 - 2.8	15-Aug-13	9:30am	5107150813213	L1348902-21	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-TP5	0.0 - 0.2	15-Aug-13	9:45am	5107150813214	L1348902-22	26-Aug-13	0.0129	<0.010	<0.020	<0.0060	<0.010	0.012	0.018	0.018	0.018	0.034	<0.010	<0.010	<0.0050	0.016	<0.010	0.011	0.040	<0.010	<0.010	<0.015	0.084	<0.025
13-TP6	0.3 - 1.0	15-Aug-13	10:00am	5107150813218	L1348902-23	26-Aug-13	<0.0050	<0.0050	<0.010	0.0053	0.017	0.016	0.023	0.023	0.034	0.017	0.010	0.023	<0.0050	0.039	<0.010	0.018	<0.010	<0.010	<0.010	0.025	0.033	<0.010
13-TP7	0.25 - 1.25	15-Aug-13	10:15am	5107150813222	L1348902-24	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
13-TP8	0.55 - 2.9	15-Aug-13	10:30am	5107150813227	L1348902-25	26-Aug-13	<0.0050	<0.0050	<0.010	<0.0040	<0.010	<0.010	<0.010	<0.010	<0.014	<0.010	<0.010	<0.010	<0.0050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
						CCME SQG	**0.28**	**320**	**NS**	**2.5**	**1**	**0.6**	**NS**	**1**	**NS**	**NS**	**1**	**6.2**	**1**	**15.4**	**0.25**	**1**	**NS**	**NS**	**0.013**	**0.046**	**7.7**	**NS**

Notes:

NS - not specified
\- - not analyzed
CCME SQG Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SQG) for the Protection of Environmental and Human Health for fine grained soils under residential/parkland landuse
Italics - indicates values do not meet applicable guidelines

TABLE 4- SOIL QUALITY RESULTS - POLYCHLORINATED BIPHENYLS

Sample Name	Sample depth (m)	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Aroclor 1016 mg/kg	Aroclor 1221 mg/kg	Aroclor 1232 mg/kg	Aroclor 1242 mg/kg	Aroclor 1248 mg/kg	Aroclor 1254 mg/kg	Aroclor 1260 mg/kg	Aroclor 1262 mg/kg	Aroclor 1268 mg/kg	Total PCBs mg/kg
13-MW3	3.7 - 4.3	14-Aug-12	12:00 pm	5107140813059	L1348143-19	27-Aug-13	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.30
13-MW6	1.2 - 1.8	15-Aug-12	10:30 am	5107150813083	L1348143-7	27-Aug-13	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.30
						CCME SQG	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**1.3**

Notes:

NS - not specified

\- - not analyzed

CCME SQG Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (SQG) for the Protection of Environmental and Human Health for fine grained soils under residential/parkland landuse

Italics - indicates values do not meet applicable guidelines

TABLE 5 - MONITORING WELL SUMMARY

Monitoring Well ID	Elevation (marl)			Depth (m)						Hydraulic Conductivity (m/s)	Method	Lithology at Screen
	Ground Surface	Top of Casing	Piezometric Aug 19 2013	Ground to Total Drilled	Ground to Top of Screen	Ground to Bottom of Screen	Top of Casing to Water Aug 19 2013	Ground to Water Aug 19 2013	Product Thickness			
13-MW1	100.013	99.922	96.34	4.55	1.40	4.28	3.58	3.67	ND	-	-	Clay & Silt
13-MW2	99.942	99.857	98.24	4.55	1.45	4.41	1.62	1.71	ND	1.1E-06	BR	Clay & Silt
13-MW3	99.905	99.813	98.91	4.55	1.50	4.52	0.90	0.99	ND	-	-	Clay & Silt
13-MW4	99.825	99.715	95.92	4.55	1.50	4.53	3.80	3.91	ND	-	-	Clay & Silt
13-MW5	99.723	99.600	97.55	4.55	1.50	4.54	2.05	2.17	ND	2.4E-08	BR	Clay & Silt
13-MW6	99.414	99.240	NV	4.55	1.50	4.54	-	-	ND	-	-	Main Clay
13-MW7	99.834	99.746	NV	4.55	1.50	4.55	-	-	ND	-	-	Clay & Silt
13-MW8	100.080	99.989	99.10	4.55	1.50	4.53	0.89	0.98	ND	-	-	Clay
13-MW9	100.083	99.984	99.09	4.55	1.50	4.52	0.89	0.99	ND	3.4E-07	BR	Clay & Silt
13-MW10	100.050	99.925	97.85	4.55	1.50	4.54	2.08	2.21	ND	4.5E-10	BR	Clay
13-MW11	99.910	99.772	98.77	4.55	1.50	4.52	1.00	1.14	ND	-	-	Clay & Silt
13-MW14	100.008	99.890	97.85	4.55	1.50	4.54	2.04	2.16	ND	4.5E-08	BR	Clay & Silt
13-MW15	99.501	99.402	96.18	4.55	1.50	4.55	3.22	3.32	ND	-	-	Clay & Silt

Notes:

- - not available
marl - m above reference level
ND - not detected
NV - no value (due to non-producing well condition)
BR - Bouwer and Rice Analysis method (1976)

TABLE 6 - WATER QUALITY RESULTS - PETROLEUM HYDROCARBONS

Sample Location	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	F1 C_6 - C_{10} mg/L	F2 $C_{>10}$ - C_{16} mg/L	F3 $C_{>16}$ - C_{34} mg/L	F4 $C_{>34}$ - C_{50} mg/L
13-MW1	19-Aug-13	9:00am	5107190813307	L1349512-7	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW8	19-Aug-13	10:30am	5107190813302	L1349512-2	23-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW10	19-Aug-13	11:00am	5107190813311	L1349512-11	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	0.57	0.65
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	*0.284*	0.0526	0.755	*5.25*	*12.9*	*3.15*	<0.25	<0.25
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
13-MW15	19-Aug-13	12:00pm	5107190813308	L1349512-8	20-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.00050	<0.0010	<0.00050	<0.0015	<0.1	<0.25	<0.25	<0.25
					MOE Table 9	**0.0044**	**14**	**1.8**	**3.3**	**0.42**	**0.15**	**0.5**	**0.5**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 7- WATER QUALITY RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Acetone mg/L	Bromodichloromethane mg/L	Bromoform mg/L	Bromomethane mg/L	Carbon Disulfide mg/L	Carbon Tetrachloride mg/L	Chlorobenzene mg/L	Dibromochloromethane mg/L	Chloroethane mg/L	Chloroform mg/L	Chloromethane mg/L	1,2-Dibromoethane mg/L	1,2-Dichlorobenzene mg/L	1,3-Dichlorobenzene mg/L	1,4-Dichlorobenzene mg/L	Dichlorodifluoromethane mg/L	1,1-Dichloroethane mg/L
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	0.023	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
13-MW15	19-Aug-13	12:00pm	5107190813308	L1349512-8	20-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.02	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.0010	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050
					MOE Table 9	**100**	**67**	**0.38**	**0.0056**	**NS**	**0.00079**	**0.5**	**65**	**0.5**	**0.0024**	**NS**	**NS**	**4.6**	**7.6**	**0.01**	**3.5**	**0.32**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 7- WATER QUALITY RESULTS - VOLATILE ORGANIC COMPOUNDS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	1,2-Dichloroethane mg/L	1,1-Dichloroethylene mg/L	cis-1,2-Dichloroethylene mg/L	trans-1,2-Dichloroethylene mg/L	Dicholoromethane mg/L	1,3-Dichloropropene (cis & trans) mg/L	Ethyl benzene mg/L	2-Hexanone (Methyl butyl ketone) mg/L	Methyl Ethyl Ketone mg/L	Methyl Isobutyl Keytone mg/L	MTBE mg/L	Styrene mg/L	1,1,1,2-Tetrachloroethane mg/L	1,1,2,2-Tetrachloroethane mg/L	Tetrachloroethylene mg/L	1,1,1-Trichloroethane mg/L	1,1,2-Trichloroethane mg/L	Trichloroethylene mg/L	Trichlorofluoromethane mg/L	Vinyl Chloride mg/L
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	0.00178	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
13-MW15	19-Aug-13	12:00pm	5107190813308	L1349512-8	20-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.00050	<0.00050	<0.00050	<0.00050	<0.001	<0.00050	<0.00050	<0.02	<0.02	<0.02	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.00050
					MOE Table 9	**0.0016**	**0.0016**	**0.0016**	**0.0016**	**NS**	**0.0052**	**1.8**	**NS**	**470**	**140**	**0.19**	**1.3**	**0.0033**	**0.0032**	**NS**	**0.64**	**0.0047**	**0.0016**	**2**	**0.0005**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 8 - WATER QUALITY RESULTS - METALS AND INORGANIC PARAMETERS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Bismuth mg/L	Boron mg/L	Cadmium mg/L	Calcium mg/L	Cesium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L	Lithium mg/L	Magnesium mg/L	Manganese mg/L	Mercury mg/L
13-MW1	19-Aug-13	9:00am	5107190813307	L1349512-7	20-Aug-13	<0.0050	<0.00020	0.00078	0.124	<0.00020	<0.00020	0.097	0.000071	164	<0.00010	<0.0010	0.00270	0.00278	<0.10	<0.000090	0.122	100	0.127	<0.000020
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.0050	<0.00020	0.00940	0.346	<0.00020	<0.00020	0.099	0.000147	411	<0.00010	<0.0010	0.00838	0.00369	<0.10	<0.000090	0.299	303	1.16	<0.000020
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	0.0157	<0.00020	0.00374	0.195	<0.00020	<0.00020	0.095	0.000124	295	<0.00010	<0.0010	0.00337	0.00398	<0.10	0.000099	0.325	267	1.59	<0.000020
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.0050	0.00025	0.00090	0.0969	<0.00020	<0.00020	0.124	0.000084	146	<0.00010	<0.0010	0.00352	0.00430	<0.10	<0.000090	0.173	107	0.140	<0.000020
13-MW10	19-Aug-13	11:00am	5107190813311	L1349512-11	20-Aug-13	0.0125	0.00021	0.00125	0.0457	<0.00020	<0.00020	0.052	0.000043	75.2	<0.00010	<0.0010	0.00042	0.00352	<0.10	0.000091	0.120	65.1	0.0862	<0.000020
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	<0.0050	0.00039	0.0195	0.0838	<0.00020	<0.00020	0.120	0.000054	202	<0.00010	<0.0010	0.00269	0.00445	<0.10	<0.000090	0.277	109	0.786	<0.000020
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	0.0503	0.00021	0.00422	0.194	<0.00020	<0.00020	0.094	0.000135	283	<0.00010	<0.0010	0.00332	0.00460	<0.10	0.000167	0.315	263	1.50	<0.000020
13-MW15	19-Aug-13	12:00pm	5107190813308	L1349512-8	20-Aug-13	0.975	0.00022	0.00431	0.192	<0.00020	<0.00020	0.099	0.000149	283	0.00013	0.0020	0.00349	0.00561	1.13	0.00119	0.313	249	1.43	<0.000020
					MOE Table 9	**NS**	**16**	**1.5**	**23**	**0.053**	**NS**	**36**	**0.0021**	**NS**	**NS**	**0.64**	**0.052**	**0.069**	**NS**	**0.02**	**NS**	**NS**	**NS**	**0.00029**

Notes:
NS - not specified
\- - not analyzed
MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Condition
Italics - indicates values do not meet applicable guidelines

TABLE 8 - WATER QUALITY RESULTS - METALS AND INORGANIC PARAMETERS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Molybdenum mg/L	Nickel mg/L	Phosphorus mg/L	Potassium mg/L	Rubidium mg/L	Selenium mg/L	Silicon mg/L	Silver mg/L	Sodium mg/L	Strontium mg/L	Tellurium mg/L	Thallium mg/L	Thorium mg/L	Tin mg/L	Titanium mg/L	Tungsten mg/L	Uranium mg/L	Vanadium mg/L	Zinc mg/L	Zirconium mg/L
13-MW1	19-Aug-13	9:00am	5107190813307	L1349512-7	20-Aug-13	0.00273	0.0049	<0.10	6.58	0.00147	<0.0010	8.89	<0.00010	99.0	0.794	<0.00020	<0.00010	<0.00010	0.00083	0.00244	<0.00010	0.0123	0.00062	<0.0020	<0.00040
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	0.00302	0.0231	<0.10	4.83	0.00347	<0.0010	11.8	<0.00010	1540	2.42	<0.00020	<0.00010	<0.00010	0.00050	0.00881	<0.00010	0.0111	<0.00020	0.0023	0.00136
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	0.00564	0.0109	0.16	7.21	0.00431	0.0018	11.8	<0.00010	248	1.71	<0.00020	<0.00010	<0.00010	<0.00020	0.0100	0.00040	0.0237	0.00411	0.0110	0.00217
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	0.00334	0.0054	<0.10	7.01	0.00196	<0.0010	9.84	<0.00010	102	0.895	<0.00020	<0.00010	<0.00010	0.00026	0.00234	<0.00010	0.0172	0.00113	0.0035	0.00041
13-MW10	19-Aug-13	11:00am	5107190813311	L1349512-11	20-Aug-13	0.00360	0.0044	<0.10	3.84	0.00165	<0.0010	4.16	<0.00010	47.8	0.490	<0.00020	<0.00010	<0.00010	<0.00020	0.00388	0.00014	0.0229	0.00423	0.0677	0.00060
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	0.00499	0.0102	<0.10	8.77	0.00217	<0.0010	16.0	<0.00010	108	1.13	<0.00020	<0.00010	<0.00010	0.00024	0.00877	<0.00010	0.0312	0.00115	0.0145	0.00088
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	0.00583	0.0109	0.19	7.78	0.00442	0.0017	12.7	<0.00010	238	1.65	<0.00020	<0.00010	<0.00010	<0.00020	0.0115	0.00039	0.0237	0.00483	0.0432	0.00214
13-MW15	19-Aug-13	12:00pm	5107190813308	L1349512-8	20-Aug-13	0.00574	0.0120	0.22	7.60	0.00621	0.0020	13.5	<0.00010	239	1.58	<0.00020	<0.00010	0.00054	0.00034	0.0520	0.00038	0.0226	0.00679	0.0388	0.00243
MOE Table 9						**7.3**	**0.39**	**NS**	**NS**	**NS**	**0.05**	**NS**	**0.0012**	**1800**	**NS**	**NS**	**0.4**	**NS**	**NS**	**NS**	**NS**	**0.33**	**0.2**	**0.89**	**NS**

Notes:

NS - not specified

\- - not analyzed

Table 3 Federal Interim Groundwater Quality Guidelines

MOE Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act

TABLE 9- WATER QUALITY RESULTS - POLYCYCLIC AROMATIC HYDROCARBONS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Acenaphthene mg/L	Acenaphthylene mg/L	Acridine mg/L	Anthracene mg/L	Benzo(a)anthracene mg/L	Benzo(a)pyrene mg/L	Benzo(b&j)fluoranthene mg/L	Benzo(g,h,i)perylene mg/L	Benzo(k)fluoranthene mg/L	Chrysene mg/L	Dibenzo(a,h)anthracene mg/L
13-MW1	19-Aug-13	9:00am	5107190813307	L1349512-7	20-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
Duplicate (13-MW2)	19-Aug-13	9:00am	5107190813313	L1349512-13	22-Aug-13	<0.000020	<0.000020	0.000026	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	0.0000113	0.000023	<0.000020	<0.000010	<0.000020	0.0000053
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
13-MW8	19-Aug-13	10:30am	5107190813302	L1349512-2	23-Aug-13	<0.00020	<0.00020	<0.00020	<0.00010	<0.00010	<0.000050	<0.00010	<0.00020	<0.00010	<0.00020	<0.000050
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050
					MOE Table 9	**0.6**	**0.0014**	**NS**	**0.001**	**0.0018**	**0.00081**	**NS**	**0.0002**	**0.0004**	**0.0007**	**0.0004**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 9- WATER QUALITY RESULTS - POLYCYCLIC AROMATIC HYDROCARBONS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Fluoranthene mg/L	Fluorene mg/L	Indeno(1,2,3-cd)pyrene mg/L	1,2-Methylnaphthalene mg/L	Naphthalene mg/L	Phenanthrene mg/L	Pyrene mg/L	Quinoline mg/L
13-MW1	19-Aug-13	9:00am	5107190813307	L1349512-7	20-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
Duplicate (13-MW2)	19-Aug-13	9:00am	5107190813313	L1349512-13	22-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
13-MW4	19-Aug-13	9:30am	5107190813309	L1349512-9	20-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	0.000015	<0.000020
13-MW5	19-Aug-13	10:00am	5107190813310	L1349512-10	20-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
13-MW8	19-Aug-13	10:30am	5107190813302	L1349512-2	23-Aug-13	<0.00020	<0.00020	<0.00010	<0.00020	<0.00050	<0.00050	<0.00010	<0.00020
13-MW9	19-Aug-13	11:00am	5107190813301	L1349512-1	23-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
13-MW14	19-Aug-13	11:30am	5107190813304	L1349512-4	20-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.000020	<0.000020	<0.000010	<0.000020	<0.000020	<0.000050	<0.000050	<0.000010
					MOE Table 9	**0.07**	**0.29**	**0.0002**	**1.5**	**1.4**	**0.38**	**0.0057**	**NS**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 10- WATER QUALITY RESULTS - POLYCHLORINATED BIPHENYLS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Aroclor 1016 mg/L	Aroclor 1221 mg/L	Aroclor 1232 mg/L	Aroclor 1242 mg/L	Aroclor 1248 mg/L	Aroclor 1254 mg/L	Aroclor 1260 mg/L	Aroclor 1262 mg/L	Aroclor 1268 mg/L	Total PCBs mg/L
13-MW2	19-Aug-13	9:00am	5107190813306	L1349512-6	28-Aug-13	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00015
13-MW3	19-Aug-13	9:30am	5107190813305	L1349512-5	28-Aug-13	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00015
Trip Blank	19-Aug-13	n/a	5107190813314	L1349512-14	28-Aug-13	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00015
					MOE Table 9	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**NS**	**0.0002**

Notes:

NS - not specified

\- - not analyzed

MOE Table 9 Ontario Ministry of Environment: Soil, Ground Water and Sediment Satndards for Use Under Part XV.1 of the Evironmental Protection Act, Table 9 : Generic Site Condition Standards for Use within 30 m of a Water Body in Non-Potable Groundwater Condition

Italics - indicates values do not meet applicable guidelines

TABLE 11- SOIL QA/QC - PETROLEUM HYDROCARBONS

The City of Winnipeg

1215 Archibald Street, Winnipeg, Manitoba, Ottawa, ON Phase II ESA

Sample Name	Sample Depth (m)	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Xylenes mg/kg	F1 C_6 - C_{10} mg/kg	F2 $C_{>10}$ - C_{16} mg/kg	F3 $C_{>16}$ - C_{34} mg/kg	F4 $C_{>34}$ - C_{50} mg/kg
13-BH16-2	1.2 - 1.8	08/15/2013	1:35pm	5107150813092	L1348902-28	17-Aug-13	0.454	18.6	14.60	74.1	550	551	109	<50
Duplicate (13-BH16-2)	1.2 - 1.8	08/15/2013	2:05pm	5107150813095	L1348902-32	17-Aug-13	0.622	27.4	20.4	173	680	430	124	<50
						Detection Limit	0.01	1.0	0.3	1.4	200	25	50	50
						Reliable Detection Limit (RDL)**	0.025	5	1.5	7	1000	125	250	250
						Absolute Difference*	0.17	9	6	99	130	121	15	-
						Absolute Relative Percent Difference (RPD)*	31.2	38.3	33.1	80.0	21.1	24.7	12.9	-
						Duplicate Sample Results Evaluation	Good	Good	Good	**Poor**	Good	Good	Good	Good

Notes:

- - not applicable
* - non-detectable concentrations are assessed at 95% of the detection limit
** - the reliable detection limit (RDL) or practical detection limit (PDL) is defined as 5 times the DL
Good - evaluation indicates acceptable reproducibility
Poor - evaluation indicates poor reproducibility

TABLE 12A- GROUNDWATER QA/QC - METALS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Aluminum mg/L	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Bismuth mg/L	Boron mg/L	Cadmium mg/L	Calcium mg/L	Cesium mg/L	Chromium mg/L	Cobalt mg/L	Copper mg/L	Iron mg/L	Lead mg/L	Lithium mg/L	Magnesium mg/L	Manganese mg/L	Mercury mg/L	Molybdenum mg/L
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	<0.0050	0.00039	0.0195	0.0838	<0.00020	<0.00020	0.120	0.000054	202	<0.00010	<0.0010	0.00269	0.00445	<0.10	<0.000090	0.277	109	0.786	<0.000020	0.00499
Duplicate (13-MW11)	19-Aug-13	11:30am	5107190813312	L1349512-12	20-Aug-13	0.0071	0.00033	0.0168	0.0870	<0.00020	<0.00020	0.152	0.000062	234	<0.00010	<0.0010	0.00302	0.00461	<0.10	<0.000090	0.352	118	0.952	<0.000020	0.00491
Detection Limit (DL)						0.005	0.00020	0.00020	0.00020	0.00020	0.00020	0.01000	0.000010	10	0.00010	0.00100	0.000200	0.00020	0.10	0.000090	0.0020	1.0	0.030	0.000020	0.00020
Reliable Detection Limit (RDL)**						0.025	0.001	0.001	0.001	0.001	0.001	0.05	0.00005	50	0.0005	0.005	0.001	0.001	0.5	0.00045	0.01	5	0.15	0.0001	0.001
Absolute Difference*						-	0.00	0.00	0.00	-	-	0.03	0.00	32.00	-	-	0.00	0.00	-	-	0.08	9.00	0.17	-	0.00
Absolute Relative Percent Difference (RPD)*						-	16.7	14.9	3.7	-	-	23.5	13.8	14.7	-	-	11.6	3.5	-	-	23.8	7.9	19.1	-	1.6
Duplicate Sample Results Evaluation						Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Nickel mg/L	Phosphorus mg/L	Potassium mg/L	Rubidium mg/L	Selenium mg/L	Silicon mg/L	Silver mg/L	Sodium mg/L	Strontium mg/L	Tellurium mg/L	Thallium mg/L	Thorium mg/L	Tin mg/L	Titanium mg/L	Tungsten mg/L	Uranium mg/L	Vanadium mg/L	Zinc mg/L	Zirconium mg/L
13-MW11	19-Aug-13	11:30am	5107190813303	L1349512-3	20-Aug-13	0.0102	<0.10	8.77	0.00217	<0.0010	16.0	<0.00010	108	1.13	<0.00020	<0.00010	<0.00010	0.00024	0.00877	<0.00010	0.0312	0.00115	0.0145	0.00088
Duplicate (13-MW11)	19-Aug-13	11:30am	5107190813312	L1349512-12	20-Aug-13	0.0120	<0.10	9.01	0.00230	<0.0010	15.8	<0.00010	127	1.32	<0.00020	<0.00010	<0.00010	0.00025	0.0123	<0.00010	0.0392	0.00133	0.0153	0.00094
Detection Limit (DL)						0.0020	0.10	0.020	0.00020	0.0010	0.050	0.00010	3.0	0.010	0.00020	0.00010	0.00010	0.00020	0.00050	0.00010	0.00010	0.00020	0.0020	0.00040
Reliable Detection Limit (RDL)**						0.01	0.5	0.1	0.001	0.005	0.25	0.0005	15	0.05	0.001	0.0005	0.0005	0.001	0.0025	0.0005	0.0005	0.001	0.01	0.002
Absolute Difference*						0.00	-	0.24	0.00	-	0.20	-	19.00	0.19	-	-	-	0.00	0.0035	-	0.01	0.00	0.00	0.00
Absolute Relative Percent Difference (RPD)*						16.2	-	2.7	5.8	-	1.3	-	16.2	15.5	-	-	-	4.1	33.5	-	22.7	14.5	5.4	6.6
Duplicate Sample Results Evaluation						Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	**Poor**	Good	Good	Good	Good	Good

Notes:

- - not applicable
- * - non-detectable concentrations are assessed at 95% of the detection limit
- ** - the reliable detection limit (RDL) or practical detection limit (PDL) is defined as 5 times the DL
- *Good* - evaluation indicates acceptable reproducibility
- **Poor** - evaluation indicates poor reproducibility

TABLE 12B- GROUNDWATER QA/QC - PETROLEUM HYDROCARBONS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Benzene mg/L	Toluene mg/L	thylbenzen mg/L	Xylenes mg/L	F1 C_6 - C_{10} mg/L	F2 $C_{>10}$ - C_{16} mg/L	F3 $C_{>16}$ - C_{3} mg/L	F4 $C_{>34}$ - C_{50} mg/L
13-MW11	19-Aug-13	11:30am	071908133	1349512-3	20-Aug-13	**0.284**	**0.0526**	**0.755**	**5.25**	***12.9***	***3.12***	<0.25	<0.25
Duplicate (13-MW11)	19-Aug-13	11:30am	071908133	1349512-1	20-Aug-13	**0.282**	**0.0654**	**0.775**	**5.88**	***14.6***	***3.24***	<0.25	<0.25
					Detection Limit (DL)	0.0025	0.001	0.0025	0.014	2	0.25	0.25	0.25
					Reliable Detection Limit (RDL)**	0.013	0.005	0.013	0.07	10	1.3	1	1.3
					Absolute Difference*	0.0020	0.0128	0.02	0.63	1.70	0.12	-	-
					Absolute Relative Percent Difference (RPD)*	0.7	21.7	2.6	11.3	12.4	3.8	-	-
					Duplicate Sample Results Evaluation	Good	Good	Good	Good	Good	Good	Good	Good

Notes:

- - not applicable

* - non-detectable concentrations are assessed at 95% of the detection limit

** - the reliable detection limit (RDL) or practical detection limit (PDL) is defined as 5 times the DL

Good - evaluation indicates acceptable reproducibility

Poor - evaluation indicates poor reproducibility

TABLE 12C - GROUNDWATER QA/QC- POLYCYCLIC AROMATIC HYDROCARBONS

Sample Name	Sample Date	Sample Time	Concentric Sample ID	Lab COA Reference	Analysis Date	Acenaphthene mg/L	Acenaphthylene mg/L	Acridine mg/L	Anthracene mg/L	Benzo(a)anthracene mg/L	Benzo(a)pyrene mg/L	Benzo(b&j)fluoranthene mg/L	Benzo(g,h,i)perylene mg/L	Benzo(k)fluoranthene mg/L	Chrysene mg/L	Dibenzo(a,h)anthracene mg/L	Fluoranthene mg/L	Fluorene mg/L	Indeno(1,2,3-cd)pyrene mg/L	1,2-Methylnaphthalene mg/L	Naphthalene mg/L	Phenanthrene mg/L	Pyrene mg/L	Quinoline mg/L
13-MW2	19-Aug-13	9:00am	071908133	1349512-6	28-Aug-13	<0.000020	<0.000020	<0.000020	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
Duplicate (13-MW2)	19-Aug-13	9:00am	071908133	1349512-1	22-Aug-13	<0.000020	<0.000020	0.000026	<0.000010	<0.000010	<0.0000050	<0.000010	<0.000020	<0.000010	<0.000020	<0.0000050	<0.000020	<0.000020	<0.000010	<0.000020	<0.000050	<0.000050	<0.000010	<0.000020
Detection Limit						0.00002	0.00002	0.00002	0.00001	0.00001	0.000005	0.00001	0.00002	0.00001	0.00002	0.000005	0.00002	0.00002	0.00001	0.00002	0.00005	0.00005	0.00001	0.00002
Reliable Detection Limit (RDL)**						0.0001	0.0001	0.0001	0.00005	0.00005	0.000025	0.00005	0.0001	0.00005	0.0001	0.000025	0.0001	0.0001	0.00005	0.0001	0.00025	0.00025	0.00005	0.0001
Absolute Difference*						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Absolute Relative Percent Difference (RPD)*						-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Duplicate Sample Results Evaluation						Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good	Good

Notes:

- - not applicable

* - non-detectable concentrations are assessed at 95% of the detection limit

** - the reliable detection limit (RDL) or practical detection limit (PDL) is defined as 5 times the DL

Good - evaluation indicates acceptable reproducibility

Poor - evaluation indicates poor reproducibility

APPENDIX A
Borehole and Test Pit Logs

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-BH12

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Some sand, grey, dry									
			Clay Silty, very stiff, high-plastic, dark brown, damp				50		3.2			
1	98.93						100		5.5			
			Clay and Silt Soft, non-plastic, dark brown, very moist	031			100	BTEX; PHCs	5.3			
2	97.93			032			100	BTEX; PHCs	12.1			
			Clay Trace silt, very stiff, high-plastic, dark brown, wet				100		2.2			
3	96.93		End of borehole at 3.05 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.93 nm
Top of Casing Elevation: nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-BH13

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Some sand, grey, dry									
			Clay Silty, very stiff, high-plastic, brown, damp				100		2.5			
1	98.82						100					
			Clay and Silt Soft, non-plastic, dark brown, very moist	036			100	BTEX, PHCs	16.1			
2	97.82						100		8.5			
			Clay Trace silt, very stiff, high-plastic, dark brown, wet				100		1.7			
3	96.82		End of borehole at 3.05 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.82 nm
Top of Casing Elevation: nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-BH16

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Some sand, grey, dry									
			Clay Silty, stiff, med-plastic, dark brown, damp				100		1.4			
1	98.93			091			100	BTEX; PHCs	642.0			
			Clay and Silt Soft, non-plastic, brown, very moist	092			100	BTEX; PHCs	409.0			
2	97.93			093			100	BTEX; PHCs	56.2			
			Clay Trace silt, very stiff, high-plastic, brown, wet				100		1.1			
3	96.93		End of borehole at 3.05 m									

ORGANIC VAPOUR LEVEL (ppmv) scale: 1 10 100 1000 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.93 nm
Top of Casing Elevation: nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-BH17

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Sandy, grey, dry									
1	98.94		**Clay** Silty, stiff, med-plastic, dark brown, damp				100		3.2			
2	97.94		**Clay and Silt** Soft, non-plastic, brown, very moist	098			100	BTEX; PHCs	1.1 1.0			
3	96.94		**Clay** Trace silt, very stiff, high-plastic, brown, wet				100		0.3			
			End of borehole at 3.05 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.94 nm
Top of Casing Elevation: nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW01

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Concrete									Flush-Mount J-Plug
			Sand Silty, loose, well-graded, yellow, dry	100			100	BTEX; PHCs	0.2			Bentonite Slurry
1	99.01		**Clay** Silty, firm, med-plastic, brown, moist				100		0.2			
							100		0.1			
2	98.01		**Clay and Silt** Loose, non-plastic, brown, moist	103			100	PAHs; Metals	0.3			
			Clay Trace silt, very firm, high-plastic, brown, moist				100		0.2			Silica Sand
3	97.01											10 slot PVC
							100		0.3			
			Becoming moist								▼	GW = 96.34 m (Measurement Date: August 19, 2013)
4	96.01						100		0.1			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 100.01 nm
Top of Casing Elevation: 99.92 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW02

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	ORGANIC VAPOUR LEVEL (ppmv)	CONSTRUCTION	WATER LEVEL	NOTES
			Concrete									Flush-Mount J-Plug
			Sand Silty, loose, well-graded, yellow, dry	107			100	BTEX, PHCs	0.1			Bentonite Slurry
1	98.94		**Clay** Silty, firm, med-plastic, brown, moist				100		0.2			
							100		0.1			GW = 98.23 m (Measurement Date: August 19, 2013)
2	97.94		**Clay and Silt** Loose, non-plastic, brown, moist				100		0.3			
							100		0.2			Silica Sand
3	96.94						100		0.1			10 slot PVC
4	95.94						100		0.2			
			End of borehole at 4.55 m									

ORGANIC VAPOUR LEVEL (ppmv) scale: 1 10 100 1000 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.94 nm
Top of Casing Elevation: 99.86 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW03

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Asphalt									Flush-Mount J-Plug Bentonite Slurry
			Gravel									
			Clay Silty, trace gravel, stiff, non-plastic, brown, damp				100		0.2			
1	98.91						100		0.1		▼	GW = 98.92 m (Measurement Date: August 19, 2013)
			Clay and Silt Soft, high-plastic, dark brown, moist				100		0.4			
2	97.91						100		0.2			Silica Sand
			Clay Trace silt, very stiff, high-plastic, dark brown, very moist				100		0.1			
3	96.91						100		0.2			10 slot PVC
				059			100	PCBs	0.1			
4	95.91		End of borehole at 4.55 m									

ORGANIC VAPOUR LEVEL (ppmv) scale: 1 10 100 1000 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.91 nm
Top of Casing Elevation: 99.81 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW04

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Asphalt									Flush-Mount J-Plug
			Gravel Gravel underlaying				100		0.2			
			Clay Silty, trace gravel, stiff, non-plastic, dark brown, damp									Bentonite Slurry
1	98.83		**Clay and Silt** Soft, high-plastic, dark brown, moist				100		0.2			
							100		0.1			
2	97.83		**Clay** Trace silt, very stiff, high-plastic, dark brown, very moist				100		0.3			
							100		0.1			Silica Sand 10 slot PVC
3	96.83						100		0.1			
4	95.83						100		0.2		▼	GW = 95.92 m (Measurement Date: August 19, 2013)
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.83 nm
Top of Casing Elevation: 99.72 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW05

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	ORGANIC VAPOUR LEVEL (ppmv) 1 10 100 1000 10000	CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Sandy, with silt, loose, well-graded, grey, dry				100		0.2			Flush-Mount J-Plug
			Clay Silty, firm, med-plastic, dark brown, moist				100		0.3			Bentonite Slurry
1	98.72											
			Clay and Silt Loose, non-plastic, brown, moist				100		0.1			
2	97.72										▼	GW = 97.55 m (Measurement Date: August 19, 2013)
			Clay Trace silt, very firm, high-plastic, brown, moist	078			100	PAHs; Metals	0.2			Silica Sand 10 slot PVC
3	96.72						100		0.3			
4	95.72						100		0.1			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.72 nm
Top of Casing Elevation: 99.61 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW06

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	SAMPLE RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Topsoil Organic materials				100		0.4			Flush-Mount J-Plug
			Sand Silty, loose, well-graded, brown, dry									Bentonite Slurry
1	98.41		**Clay** Silty, firm, med-plastic, brown, damp				100		0.1			
				083			100	BTEX, PHCs, PCBs	0.3			
2	97.41						100		0.2			
			Clay and Silt Loose, non-plastic, brown, moist				100		0.3			Silica Sand
3	96.41		**Clay** Trace silt, very firm, high-plastic, brown, very moist				100		0.1			10 slot PVC
4	95.41						100		0.1			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.41 nm
Top of Casing Elevation: 99.24 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW07

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Gravel Sandy, grey, dry						0.2			Flush-Mount J-Plug
			Clay Silty, very stiff, high-plastic, black, damp						0.1			Bentonite Slurry
1	98.83		**Clay and Silt** Soft, non-plastic, dark brown, very moist				100		3.5			
2	97.83			042			100	BTEX; PHCs	16.5			
			Clay Trace silt, very stiff, high-plastic, dark brown, very moist				100					Silica Sand 10 slot PVC
3	96.83		Becoming wet				100		1.7			
4	95.83						100		0.2			
			End of borehole at 4.55 m									

ORGANIC VAPOUR LEVEL (ppmv) scale: 1 10 100 1000 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.83 nm
Top of Casing Elevation: 99.75 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW08

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Asphalt									Flush-Mount J-Plug
			Gravel Gravel underlaying									
			Clay Silty, some gravel, very stiff, high-plastic, black, damp									Bentonite Slurry
1	99.08		**Clay** Silty, trace gravel, sitff, med-plastic, dark brown, moist				100		0.1			GW = 99.10 m (Measurement Date: August 19, 2013)
							100		0.2			
				010			15	BTEX, PHCs	0.2			
2	98.08						100		0.1			
			Clay Trace silt, very stiff, high-plastic, dark brown, moist				100		0.3			Silica Sand
3	97.08		Becoming wet				100		0.1			10 slot PVC
4	96.08						100		0.1			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 100.08 nm
Top of Casing Elevation: 99.99 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW09

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Asphalt									Flush-Mount J-Plug
			Gravel Gravel underlaying									
			Clay Silty, very stiff, high-plastic, black, damp									Bentonite Slurry
1	99.08		**Clay** Silty, sitff, med-plastic, dark brown, moist				100		0.3		GW = 99.09 m (Measurement Date: August 19, 2013)	
							100		0.4			
			Clay and Silt Soft, non-plastic, dark brown, very moist				100		0.3			
2	98.08						100		0.1			
			Clay Trace silt, very stiff, high-plastic, dark brown, very moist	005			100	BTEX; PHCs	0.2			Silica Sand
3	97.08						100		0.1			10 slot PVC
			Becoming wet				100		0.2			
4	96.08											
			End of borehole at 4.55 m									

ORGANIC VAPOUR LEVEL (ppmv) scale: 1 10 100 1000 10000

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 100.08 nm
Top of Casing Elevation: 99.98 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW10

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	SAMPLE RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
0			**Asphalt**									Flush-Mount J-Plug
			Gravel Gravel underlaying									
1	99.05		**Clay** Silty, stiff, med-plastic, dark brown, damp				100		0.2			Bentonite Slurry
							100		0.1			
							100		0.1			
2	98.05		**Clay** Trace silt, very stiff, high-plastic, dark brown, very moist				100		0.3			GW = 97.84 m (Measurement Date: August 19, 2013)
				019			100	BTEX; PHCs	0.2			Silica Sand
3	97.05						100		0.1			10 slot PVC
4	96.05						100		0.2			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 100.05 nm
Top of Casing Elevation: 99.93 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW11

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Asphalt									Flush-Mount J-Plug
			Gravel Gravel underlaying									
			Clay Silty, some gravel, stiff, med-plastic, black, damp									Bentonite Slurry
1	98.91		**Clay and Silt** Stiff, med-plastic, dark brown, moist				100		0.8, 62.1			GW = 98.77 m (Measurement Date: August 19, 2013)
				024			100	BTEX; PHCs	145.6			
2	97.91		**Clay** Trace silt, very stiff, med-plastic, dark brown, moist	025			100	BTEX; PHCs	333.0			
				026			100	BTEX; PHCs	43.3			Silica Sand
3	96.91		Becoming moist	027			100	BTEX; PHCs	38.6			10 slot PVC
4	95.91						100		1.8			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.91 nm
Top of Casing Elevation: 99.77 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW14

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Topsoil Sandy, trace gravel, dark brown, damp				100		1.4			Flush-Mount J-Plug
			Sand and Gravel Loose, grey, damp									Bentonite Slurry
1	99.01		**Clay** Silty, stiff, high-plastic, dark brown, moist				100		0.8			
			Clay and silt Soft, non-plastic, brown, very moist				100		3.4			
2	98.01						100		2.2		▼	GW = 97.85 m (Measurement Date: August 19, 2013)
			Clay Trace silt, very stiff, high-plastic, brown, very moist				100		6.1			Silica Sand
3	97.01						100		4.1			10 slot PVC
4	96.01						100		1.3			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 14 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 100.01 nm
Top of Casing Elevation: 99.89 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-MW15

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WELL COMPLETION: WATER LEVEL	NOTES
			Topsoil Sandy, dark brown, damp				100		0.1			Flush-Mount J-Plug
			Clay Silty, firm, med-plastic, brown, dry				100		0.3			
			Clay and Silt Loose, non-plastic, brown, moist				100		0.1			Bentonite Slurry
1	98.50						100		0.2			
2	97.50						100		0.1			
			Clay Trace silt, very firm, high-plastic, brown, very moist	071			100	BTEX; PHCs	0.1			Silica Sand 10 slot PVC
3	96.50						100		0.1		▼	GW = 96.18 m (Measurement Date: August 19, 2013)
4	95.50						100		0.1			
			End of borehole at 4.55 m									

DRILLER: Paddock
DRILLING METHOD: Solid Stem Auger
BOREHOLE DIAMETER (m): 0.15
WELL DIAMETER (m): 0.05
DRILL DATE: 15 August 2013
LOGGED BY: AJ

Groundsurface Elevation: 99.50 nm
Top of Casing Elevation: 99.41 nm

Notes:

SPLIT SPOON

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP1

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	CONSTRUCTION	WATER LEVEL	NOTES
0			**Sand** Silty, trace gravel, loose, well-graded, dark brown, damp						0.2			
			Clay Silty, very firm, high-plastic, dark brown, moist						0.5			
1			**Clay and Silt** Loose, non-plastic, brown, moist	202				PAHs, Metals	0.4			
			Clay Trace silt, very firm, high-plastic, brown, very moist									
2												
3			End of borehole at 3.00 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP2

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv) 1 10 100 1000 10000	WELL CONSTRUCTION	WATER LEVEL	NOTES
			Sand Silty, trace gravel, loose, well-graded, dark brown, damp						0.3			
			Clay Silty, high-plastic, light grey, moist									
1			**Clay** Silty, high-plastic, reddish brown, moist						0.3			
			Clay Trace silt, very firm, high-plastic, dark brown, very moist	206				PAHs, Metals	0.3			
			End of borehole at 1.70 m									

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP3

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
0			**Sand** Silty, some gravel, loose, non-plastic, well-graded, grey, damp						0.3			
			Clay and Silt Trace gravel, very firm, high-plastic, dark brown, moist						0.2			
1												
			Clay Trace silt, very firm, high-plastic, dark grey, very moist						0.2			
			End of borehole at 1.90 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP4

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv) 1 10 100 1000 10000	WELL COMPLETION: CONSTRUCTION	WATER LEVEL	NOTES
			Sand Silty, trace gravel, loose, well-graded, dark brown, damp						0.2			
			Clay Silty, very firm, med-plastic, well-graded, dark grey, moist						0.2			
1												
			Clay Trace silt, very firm, high-plastic, well-graded, grey, moist									
2				213				PAHs; Metals	0.2			
			End of borehole at 2.80 m									

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP5

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	CONSTRUCTION	WATER LEVEL	NOTES
			Sand Silty, loose, well-graded, dark brown, damp	214				PAHs; Metals	10.8			
1			**Clay and Silt** Very firm, high-plastic, dark grey, moist						0.4			
			Clay Trace silt, very firm, high-plastic, dark brown, moist						0.3			
2			End of borehole at 2.80 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP6

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv) 1 10 100 1000 10000	CONSTRUCTION	WATER LEVEL	NOTES
			Sand Silty, trace gravel, loose. well-graded, dark brown, damp						0.4			
			Clay Silty, very firm, non-plastic, dark grey, very moist	218				PAHs; Metals	0.3			
1			**Clay** Trace silt, very firm, high-plastic, grey, very moist									
2									0.4			
			End of borehole at 2.70 m									

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP7

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	CONSTRUCTION	WATER LEVEL	NOTES
			Sand Silty, trace gravel, loose, well-graded, grey, damp						0.3 0.2			
			Sand and Silt Loose, well-graded, reddish brown, damp									
			Clay Silty, firm, high-plastic, well-graded, dark grey, moist	222				PAHs, Metals	0.4			
1												
			Clay Trace silt, very firm, high-plastic, well-graded, grey, very moist									
2									0.3			
			End of borehole at 2.60 m									

ORGANIC VAPOUR LEVEL (ppmv): 1 | 10 | 100 | 1000 | 10000

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

CONCENTRIC

CLIENT: **City of Winnipeg**
PROJECT: **Phase II Environmental Site Assessment**
ADDRESS: **1201/ 1215 Archibald Street, Winnipeg, MB**

Project #: 13-5107-E

BOREHOLE LOG

BOREHOLE NO: 13-TP8

DEPTH (m)	ELEVATION (m)	SOIL TYPE	SOIL DESCRIPTION	SAMPLE ID	SAMPLE TYPE	SPT COUNT	RECOVERY (%)	LAB ANALYSIS	FIELD TEST DATA: ORGANIC VAPOUR LEVEL (ppmv)	WELL CONSTRUCTION	WATER LEVEL	NOTES
0			**Sand** Silty. trace gravel, well-graded, dark brown, damp						0.4			
			Sand Silty, some gravel, compact, well-graded, light grey, damp						0.3			
			Clay Silty, firm, low-plastic, dark grey, moist									
1			**Clay** Trace silt, very firm, high-plastic, greyey brown, very moist									
				227				PAHs; Metals	0.3			
2			End of borehole at 2.90 m									

ORGANIC VAPOUR LEVEL (ppmv): 0 | 1 | 10 | 100 | 1000 | 10000

DRILLER:
DRILLING METHOD:
BOREHOLE DIAMETER (m):
WELL DIAMETER (m):
DRILL DATE:
LOGGED BY: AJ

Groundsurface Elevation: nm
Top of Casing Elevation: nm

Notes:

GRAB SAMPLE

APPENDIX B
Soil Laboratory Analytical Reports

CONCENTRIC ASSOCIATES
INTERNATIONAL INCORPORATED
ATTN: GRANT BARKER
5310 Canotek
Unit 30
Ottawa ON K1J 9N5

Date Received: 14-AUG-13
Report Date: 22-AUG-13 15:50 (MT)
Version: FINAL

Client Phone: 519-452-7700

Certificate of Analysis

Lab Work Order #: L1347940

Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Craig Riddell
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1347940-2 5107140813005 Sampled By: CLIENT on 14-AUG-13 @ 10:00 Matrix: Soil							
Physical Tests							
% Moisture	32		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	104.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1347940-4 5107140813010 Sampled By: CLIENT on 14-AUG-13 @ 11:00 Matrix: Soil							
Physical Tests							
% Moisture	22		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	1710		76	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	827		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	885		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4G-SG	4150		500	mg/kg		21-AUG-13	R2677251
Chrom. to baseline at nC50	NO				19-AUG-13	19-AUG-13	R2676278
L1347940-8 5107140813019 Sampled By: CLIENT on 14-AUG-13 @ 13:00 Matrix: Soil							
Physical Tests							

* 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
L1347940-8 5107140813019 Sampled By: CLIENT on 14-AUG-13 @ 13:00 Matrix: Soil							
Physical Tests							
% Moisture	34		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	97.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA SW846 8260B REV 2

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	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.

F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC Dec-2000 - Pub# 1310

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.

F4G-TMB-WP	Soil	CCME Gravimetric Heavy Hydrocarbons	CCME CWS-PHC Dec-2000 - Pub# 1310-S

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using gravimetric method

** 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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

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: L1347940 Report Date: 22-AUG-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: GRANT BARKER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R2675608								
WG1730024-4 DUP		**L1348143-7**						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Ethyl benzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	20-AUG-13
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
m+p-Xylenes		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
F1 (C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	50	20-AUG-13
WG1730024-2 LCS								
Benzene			95.6		%		70-130	19-AUG-13
Toluene			95.7		%		70-130	19-AUG-13
Ethyl benzene			94.0		%		70-130	19-AUG-13
o-Xylene			102.5		%		70-130	19-AUG-13
m+p-Xylenes			92.5		%		70-130	19-AUG-13
WG1730024-3 LCS								
F1 (C6-C10)			85.3		%		80-120	19-AUG-13
WG1730024-1 MB								
Benzene			<0.0050		mg/kg		0.005	19-AUG-13
Toluene			<0.050		mg/kg		0.05	19-AUG-13
Ethyl benzene			<0.015		mg/kg		0.015	19-AUG-13
o-Xylene			<0.050		mg/kg		0.05	19-AUG-13
m+p-Xylenes			<0.050		mg/kg		0.05	19-AUG-13
F1 (C6-C10)			<10		mg/kg		10	19-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			98.0		%		70-130	19-AUG-13
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676278								
WG1729483-3 DUP		**L1348902-14**						
F2 (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	19-AUG-13
F3 (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
F4 (C34-C50)		64	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
WG1729483-4 IRM		**ALS PHC2 IRM**						
F2 (C10-C16)			97.7		%		70-130	19-AUG-13
F3 (C16-C34)			92.5		%		70-130	19-AUG-13
F4 (C34-C50)			77.0		%		70-130	19-AUG-13
WG1729483-2 LCS								
F2 (C10-C16)			99.6		%		80-120	19-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: GRANT BARKER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676278								
WG1729483-2 LCS								
F3 (C16-C34)			102.8		%		80-120	19-AUG-13
F4 (C34-C50)			87.3		%		80-120	19-AUG-13
WG1729483-1 MB								
F2 (C10-C16)			<25		mg/kg		25	19-AUG-13
F3 (C16-C34)			<50		mg/kg		50	19-AUG-13
F4 (C34-C50)			<50		mg/kg		50	19-AUG-13
F4G-TMB-WP	**Soil**							
Batch R2677251								
WG1731698-2 IRM		**ALS PHC2 IRM**						
F4G-SG			85.6		%		70-130	21-AUG-13
WG1731698-1 MB								
F4G-SG			<500		mg/kg		500	21-AUG-13
MOISTURE-WP	**Soil**							
Batch R2674797								
WG1729267-1 DUP		**L1348143-7**						
% Moisture		18	18		%	0.1	50	19-AUG-13
WG1729267-2 DUP		**L1349147-2**						
% Moisture		6.0	6.7		%	11	50	19-AUG-13

Quality Control Report

Workorder: L1347940 Report Date: 22-AUG-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: GRANT BARKER

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.

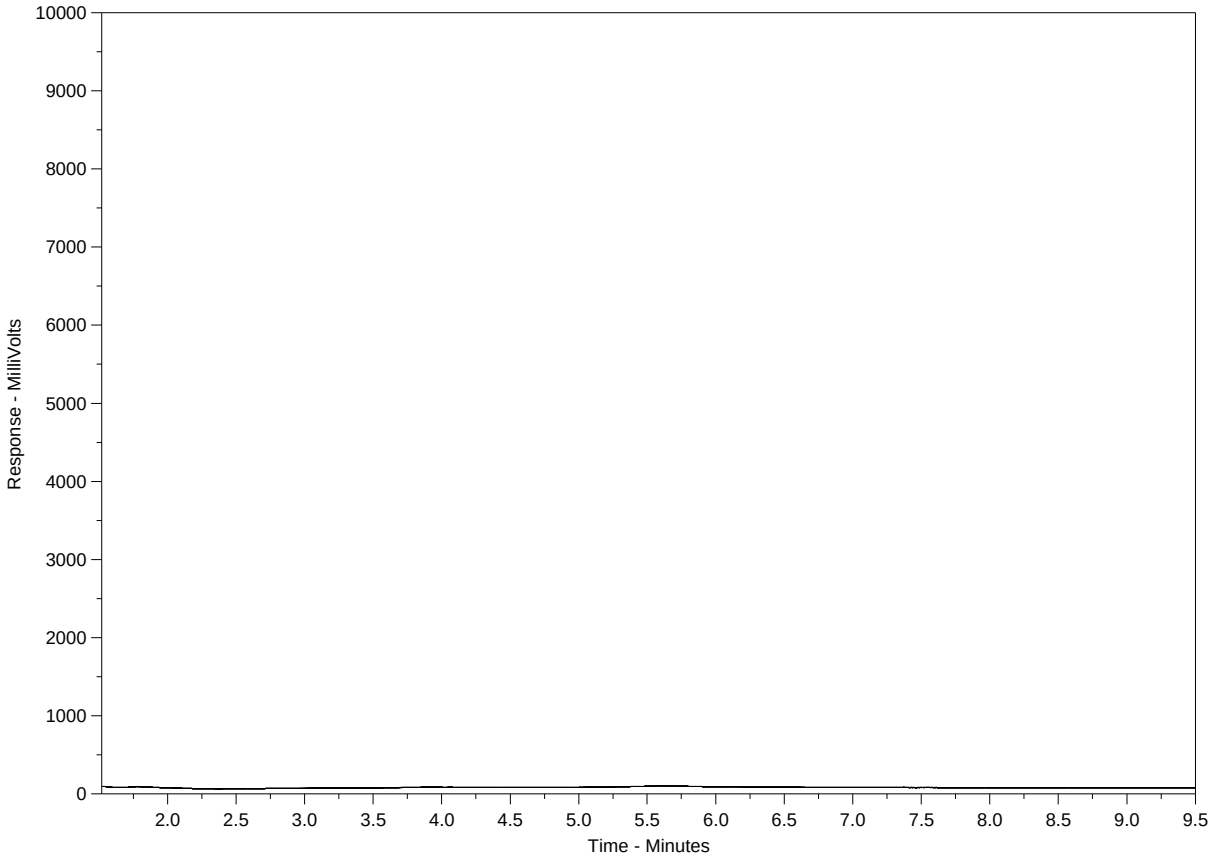
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

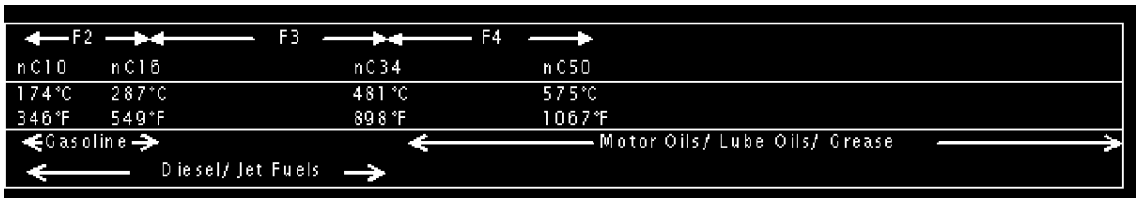
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1347940-2
Client Sample ID: 5107140813005





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

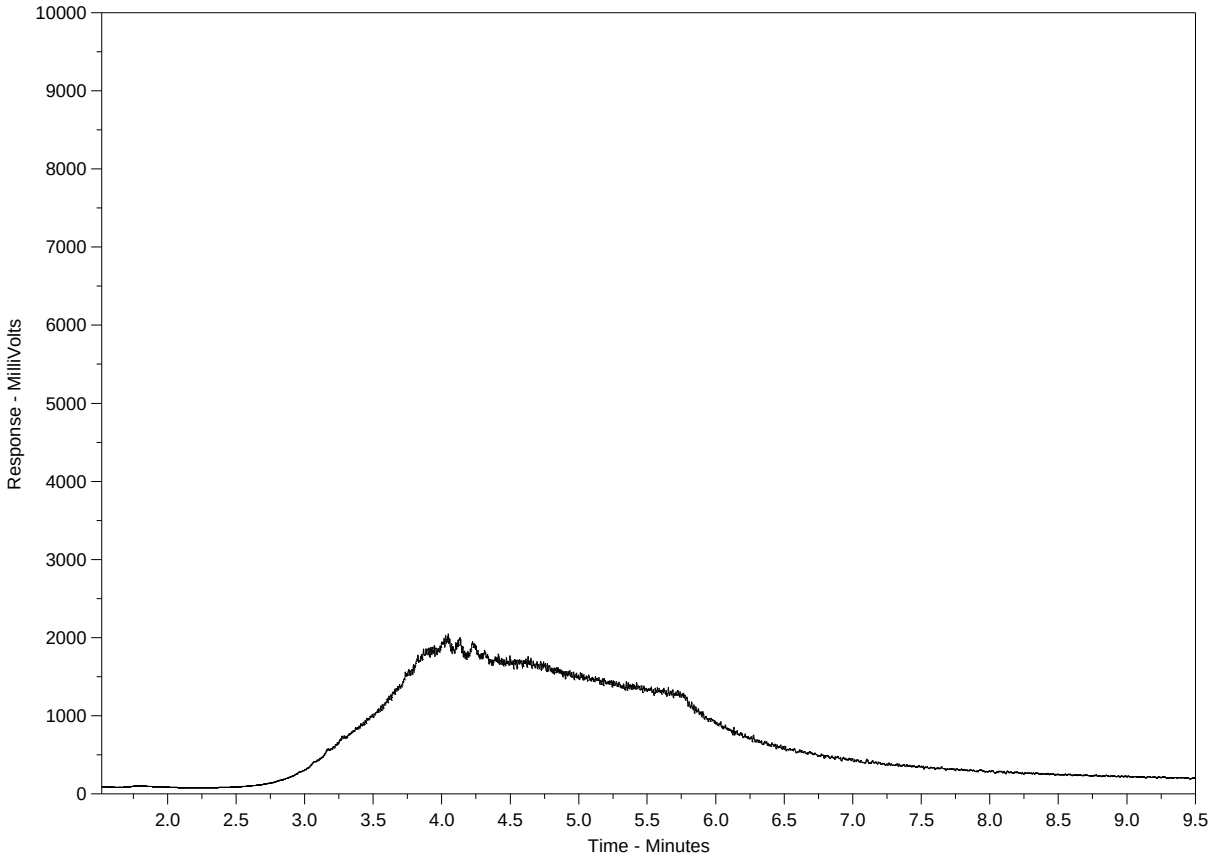
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

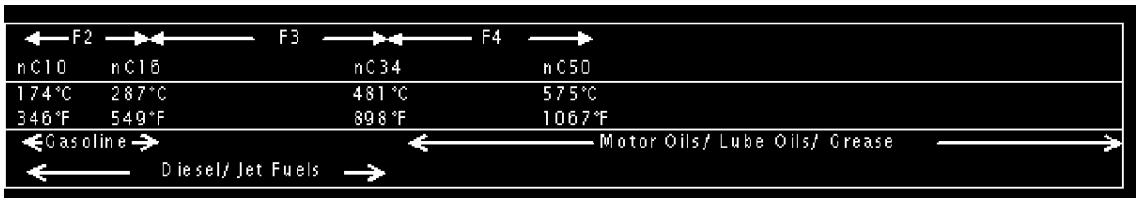
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1347940-4
Client Sample ID: 5107140813010





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

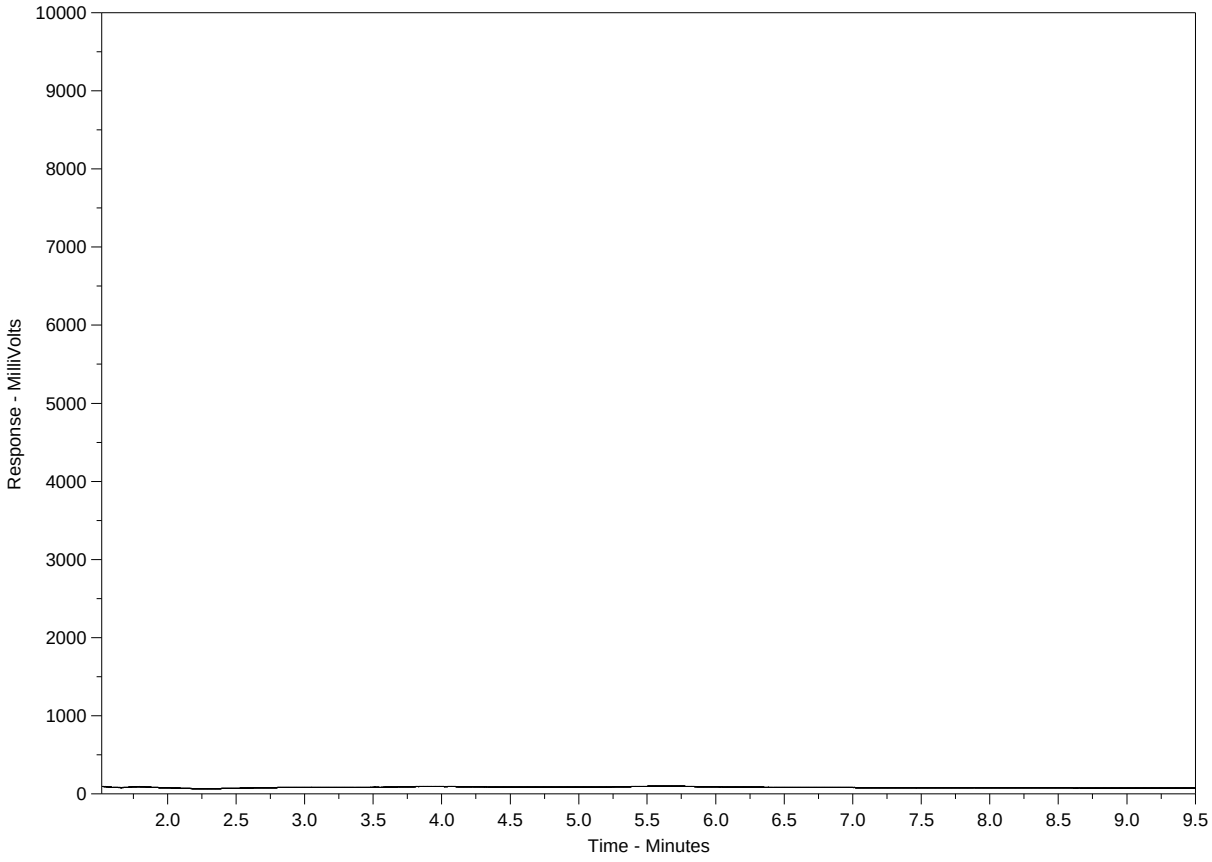
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

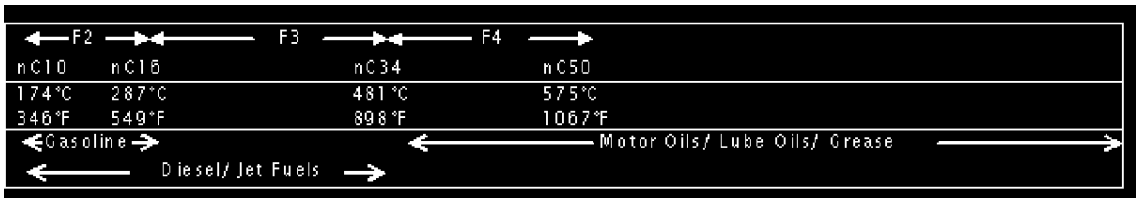
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1347940-8
Client Sample ID: 5107140813019





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

L1347940-COFC

L1347940

C of C # 00000

190 Colonnade Road, Unit 7
Nepean, ON K2E 7J5
Phone: (613) 225-8279
Fax: (613) 225-2801
Toll Free: 1-800-668-9878

IALYTICAL 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)	X	Next day TAT (100%)	
3-4 day (regular)		Same day TAT (200%)	

COMPANY NAME	Concentric Associates
OFFICE	Ottawa / Winnipeg
PROJECT MANAGER	Andrea Johnson
PROJECT #	
PHONE	519-452-7700 ext 2005
FAX	
ACCOUNT #	22595
QUOTATION #	Q40527
PO #	

CRITERIA — Criteria on report YES___ NO___

Reg 153/11
Table 1 2 3 4 5 6 7 8

TCLP _____ MISA _____ PWQO _____
ODWS _____ OTHER _____

REPORT FORMAT/DISTRIBUTION

EMAIL ___X___ FAX _____ BOTH _____
SELECT: PDF _____ DIGITAL _____ BOTH _____
EMAIL 1 andrea@concentric.com
EMAIL 2 _____

ANALYSIS REQUEST

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

SUBMISSION #

ENTERED BY:

DATE/TIME ENTERED:

BIN #:

SAMPLING INFORMATION

	Sample Date/Time		TYPE		MATRIX														
	Date (dd-mm-yy)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	AIR	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	CCME metals	PAH	PCB	BTEX, F1-F4	VOC	4/0/a				COMMENTS	LAB ID
1	14-08-13	9:30				X		5107140813003	4						X					
2		10:00				X		005							X					
3		10:30				X		007							X					
4		11:00				X		010							X					
5		11:30				X		012							X					
6		12:00				X		014							X					
7		12:30				X		017							X					
8		13:00				X		019							X					
9		13:30				X		021							X					

SPECIAL INSTRUCTIONS/COMMENTS

THE QUESTIONS BELOW MUST BE ANSWERED FORWATER SAMPLES (CHECK Yes OR No)

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 ___

SAMPLE CONDITION

___ FROZEN
___ COLD
___ COOLING INITIATED
___ AMBIENT

MEAN TEMP

OBSERVATIONS Yes___ No___ If yes add SIF

INIT

SAMPLED BY: Andrea Johnson	DATE & TIME	RECEIVED BY: GH	DATE & TIME	Aug. 14/13	
RELINQUISHED BY:	DATE & TIME	RECEIVED AT LAB BY:	DATE & TIME	16:15	

CONCENTRIC ASSOCIATES
INTERNATIONAL INCORPORATED
ATTN: ANDREA JOHNSON
5310 Canotek
Unit 30
Ottawa ON K1J 9N5

Date Received: 15-AUG-13
Report Date: 05-SEP-13 13:43 (MT)
Version: FINAL REV. 2

Client Phone: 519-452-7700

Certificate of Analysis

Lab Work Order #: L1348143

Project P.O. #: NOT SUBMITTED
Job Reference: 13-S107-E
C of C Numbers:
Legal Site Desc:

Comments: ADDITIONAL 26-AUG-13 08:17

05-SEP-13: PCB analysis added to sample -7 and -19, metals and PAH added to sample 5 in this version of the report.

Bryan Mark
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1348143-2 5107150813071 Sampled By: CLIENT on 15-AUG-13 @ 09:00 Matrix: Soil							
Physical Tests							
% Moisture	33		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348143-5 5107150813078 Sampled By: CLIENT on 15-AUG-13 @ 10:00 Matrix: Soil							
Physical Tests							
% Moisture	33		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.50		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	9.63		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	259		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.95		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.310		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	36.2		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	12.4		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	35.3		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	13.9		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	2.03		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	40.1		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.84		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.19		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.26		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	2.07		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	56.7		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	81		10	mg/kg	29-AUG-13	29-AUG-13	R2682868

* 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
L1348143-5 5107150813078 Sampled By: CLIENT on 15-AUG-13 @ 10:00 Matrix: Soil							
Metals							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	100.3		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	94.1		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	100.5		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	102.8		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348143-7 5107150813083 Sampled By: CLIENT on 15-AUG-13 @ 10:30 Matrix: Soil							
Physical Tests							
% Moisture	18		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608

* 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
L1348143-7 5107150813083 Sampled By: CLIENT on 15-AUG-13 @ 10:30 Matrix: Soil							
Volatile Organic Compounds							
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	102.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
Polychlorinated Biphenyls							
Aroclor 1016	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1221	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1232	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1242	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1248	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1254	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1260	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1262	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1268	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Surrogate: Decachlorobiphenyl	117.0		50-150	%	27-AUG-13	30-AUG-13	R2683309
Total Polychlorinated Biphenyls	<0.30		0.30	mg/kg		30-AUG-13	
L1348143-12 5107140813042 Sampled By: CLIENT on 14-AUG-13 @ 12:00 Matrix: Soil							
Physical Tests							
% Moisture	33		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	101.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348143-19 5107140813059							

* 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
L1348143-19 5107140813059 Sampled By: CLIENT on 14-AUG-13 @ 12:00 Matrix: Soil							
Physical Tests							
% Moisture	35		0.10	%	29-AUG-13	29-AUG-13	R2682012
Polychlorinated Biphenyls							
Aroclor 1016	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1221	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1232	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1242	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1248	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1254	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1260	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1262	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Aroclor 1268	<0.10		0.10	mg/kg	27-AUG-13	30-AUG-13	R2683309
Surrogate: Decachlorobiphenyl	138.0		50-150	%	27-AUG-13	30-AUG-13	R2683309
Total Polychlorinated Biphenyls	<0.30		0.30	mg/kg		30-AUG-13	

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA SW846 8260B REV 2

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	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.

F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC Dec-2000 - Pub# 1310

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.

HG-200.2-CVAF-WP	Soil	Mercury Total	EPA 7470A Rev 1,1994

A hydrochloric acid/nitric acid and potassium persulphate block digestion is employed to oxidize the organomercury to inorganic mercury. After digestion, samples are analyzed using cold vapour techniques.

MET-200.2-MS-WP	Soil	Metals	EPA 200.8/200.2 /BCMOE-S

This analysis is carried out using procedures adapted from US EPA method 200.2. Sample preparation procedure for spectrochemical determination of total recoverable elements . Soil samples are dried (<60 C) and homogenized and a representative subsample of the dry material is digested. The digested samples are analyzed by ICPMS.

The results are reported as mg/Kg dry weight or mg/Kg wet weight this is equivalent to ug/g dry weight or ug/g wet weight.

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that maybe environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not mobile in the environment. This method has known stability issues for determining Silicon.

PAH,PANH-WP	Soil	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Samples are mix with sodium sulfate and extracted with acetone/dichloromethane using a combination of high frequency sonication and shake using a platform shaker. After extract concentration, samples are analyzed by GC/MS.

PCB-SUM-CALC-WP	Soil	Total Polychlorinated Biphenyls (PCBs)	Calculation

Total Polychlorinated Biphenyls (PCBs) represents the sum of all PCB analytes analyzed for in a given sample. For the purpose of calculation, results less than the detection limit (DL) are treated as zero.

PCB-WP	Soil	PCB	EPA 8082A (modified)

A 10 gram aliquot of soil sample is extracted with 25 mLs of 50% acetone/hexane using a shaker followed by sonication. An aliquot of the extract is solvent exchanged into hexane, cleaned with sulphuric acid and analyzed by gas chromatography/electron capture detection. The sample is quantitated against commercial Arochlor standards.

** 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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

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 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: L1348143 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R2675608								
WG1730024-4 DUP		**L1348143-7**						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Ethyl benzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	20-AUG-13
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
m+p-Xylenes		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
F1 (C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	50	20-AUG-13
WG1730024-2 LCS								
Benzene			95.6		%		70-130	19-AUG-13
Toluene			95.7		%		70-130	19-AUG-13
Ethyl benzene			94.0		%		70-130	19-AUG-13
o-Xylene			102.5		%		70-130	19-AUG-13
m+p-Xylenes			92.5		%		70-130	19-AUG-13
WG1730024-3 LCS								
F1 (C6-C10)			85.3		%		80-120	19-AUG-13
WG1730024-1 MB								
Benzene			<0.0050		mg/kg		0.005	19-AUG-13
Toluene			<0.050		mg/kg		0.05	19-AUG-13
Ethyl benzene			<0.015		mg/kg		0.015	19-AUG-13
o-Xylene			<0.050		mg/kg		0.05	19-AUG-13
m+p-Xylenes			<0.050		mg/kg		0.05	19-AUG-13
F1 (C6-C10)			<10		mg/kg		10	19-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			98.0		%		70-130	19-AUG-13
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676278								
WG1729483-3 DUP		**L1348902-14**						
F2 (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	19-AUG-13
F3 (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
F4 (C34-C50)		64	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
WG1729483-4 IRM		**ALS PHC2 IRM**						
F2 (C10-C16)			97.7		%		70-130	19-AUG-13
F3 (C16-C34)			92.5		%		70-130	19-AUG-13
F4 (C34-C50)			77.0		%		70-130	19-AUG-13
WG1729483-2 LCS								
F2 (C10-C16)			99.6		%		80-120	19-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676278								
WG1729483-2 LCS								
F3 (C16-C34)			102.8		%		80-120	19-AUG-13
F4 (C34-C50)			87.3		%		80-120	19-AUG-13
WG1729483-1 MB								
F2 (C10-C16)			<25		mg/kg		25	19-AUG-13
F3 (C16-C34)			<50		mg/kg		50	19-AUG-13
F4 (C34-C50)			<50		mg/kg		50	19-AUG-13
HG-200.2-CVAF-WP	**Soil**							
Batch R2683362								
WG1737861-2 CRM		**NRC PACS-2**						
Mercury (Hg)-Total			108.1		%		70-130	30-AUG-13
WG1737861-3 CRM		**CANMET TILL-1**						
Mercury (Hg)-Total			0.093		mg/kg		0.042-0.142	30-AUG-13
WG1737861-4 DUP		**L1348902-21**						
Mercury (Hg)-Total		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	30-AUG-13
WG1737861-1 MB								
Mercury (Hg)-Total			<0.050		mg/kg		0.05	30-AUG-13
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-2 CRM		**NRC PACS-2**						
Antimony (Sb)			126.9		%		70-130	29-AUG-13
Arsenic (As)			100.4		%		70-130	29-AUG-13
Barium (Ba)			80.8		%		70-130	29-AUG-13
Beryllium (Be)			84.0		%		70-130	29-AUG-13
Cadmium (Cd)			122.8		%		70-130	29-AUG-13
Chromium (Cr)			102.2		%		70-130	29-AUG-13
Cobalt (Co)			98.2		%		70-130	29-AUG-13
Copper (Cu)			103.9		%		70-130	29-AUG-13
Lead (Pb)			104.8		%		70-130	29-AUG-13
Molybdenum (Mo)			114.1		%		70-130	29-AUG-13
Nickel (Ni)			100.5		%		70-130	29-AUG-13
Selenium (Se)			101.7		%		70-130	29-AUG-13
Silver (Ag)			108.6		%		70-130	29-AUG-13
Thallium (Tl)			99.8		%		70-130	29-AUG-13
Tin (Sn)			106.5		%		70-130	29-AUG-13
Uranium (U)			94.3		%		70-130	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-2 CRM		**NRC PACS-2**						
Vanadium (V)			104.9		%		70-130	29-AUG-13
Zinc (Zn)			95.5		%		70-130	29-AUG-13
WG1737358-3 CRM		**NRC MESS-3**						
Antimony (Sb)			106.3		%		70-130	29-AUG-13
Arsenic (As)			91.7		%		70-130	29-AUG-13
Barium (Ba)			103.4		%		70-130	29-AUG-13
Cadmium (Cd)			93.5		%		70-130	29-AUG-13
Chromium (Cr)			81.0		%		70-130	29-AUG-13
Cobalt (Co)			102.2		%		70-130	29-AUG-13
Copper (Cu)			107.2		%		70-130	29-AUG-13
Lead (Pb)			101.9		%		70-130	29-AUG-13
Molybdenum (Mo)			99.5		%		70-130	29-AUG-13
Nickel (Ni)			102.6		%		70-130	29-AUG-13
Selenium (Se)			116.5		%		70-130	29-AUG-13
Silver (Ag)			101.6		%		70-130	29-AUG-13
Tin (Sn)			84.6		%		70-130	29-AUG-13
Uranium (U)			99.4		%		70-130	29-AUG-13
Vanadium (V)			73.4		%		70-130	29-AUG-13
Zinc (Zn)			102.6		%		70-130	29-AUG-13
WG1737358-4 CRM		**OGGEO08**						
Antimony (Sb)			97.8		%		70-130	29-AUG-13
Arsenic (As)			99.9		%		70-130	29-AUG-13
Barium (Ba)			111.9		%		70-130	29-AUG-13
Beryllium (Be)			103.8		%		70-130	29-AUG-13
Cadmium (Cd)			88.5		%		70-130	29-AUG-13
Chromium (Cr)			97.7		%		70-130	29-AUG-13
Cobalt (Co)			93.2		%		70-130	29-AUG-13
Copper (Cu)			101.1		%		70-130	29-AUG-13
Lead (Pb)			98.3		%		70-130	29-AUG-13
Molybdenum (Mo)			114.4		%		70-130	29-AUG-13
Nickel (Ni)			101.8		%		70-130	29-AUG-13
Selenium (Se)			86.1		%		70-130	29-AUG-13
Silver (Ag)			94.4		%		70-130	29-AUG-13
Thallium (Tl)			100.9		%		70-130	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-4 CRM		**OGGEO08**						
Tin (Sn)			98.9		%		70-130	29-AUG-13
Uranium (U)			99.2		%		70-130	29-AUG-13
Vanadium (V)			100.1		%		70-130	29-AUG-13
Zinc (Zn)			100.6		%		70-130	29-AUG-13
WG1737358-6 DUP		**WG1737358-5**						
Antimony (Sb)		0.42	0.48		mg/kg	12	30	29-AUG-13
Arsenic (As)		8.31	8.45		mg/kg	1.6	30	29-AUG-13
Barium (Ba)		189	196		mg/kg	3.4	40	29-AUG-13
Beryllium (Be)		1.04	1.07		mg/kg	2.5	30	29-AUG-13
Cadmium (Cd)		0.282	0.287		mg/kg	1.7	30	29-AUG-13
Chromium (Cr)		44.5	44.8		mg/kg	0.8	30	29-AUG-13
Cobalt (Co)		15.0	15.3		mg/kg	1.8	30	29-AUG-13
Copper (Cu)		36.1	37.1		mg/kg	2.9	30	29-AUG-13
Lead (Pb)		15.2	15.4		mg/kg	1.6	40	29-AUG-13
Molybdenum (Mo)		2.01	2.06		mg/kg	2.7	40	29-AUG-13
Nickel (Ni)		45.1	47.2		mg/kg	4.5	30	29-AUG-13
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	29-AUG-13
Silver (Ag)		0.22	0.22		mg/kg	1.4	40	29-AUG-13
Thallium (Tl)		0.31	0.32		mg/kg	3.7	30	29-AUG-13
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	40	29-AUG-13
Uranium (U)		1.54	1.56		mg/kg	1.6	30	29-AUG-13
Vanadium (V)		66.8	63.9		mg/kg	4.4	30	29-AUG-13
Zinc (Zn)		89	88		mg/kg	0.8	30	29-AUG-13
WG1737358-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	29-AUG-13
Arsenic (As)			<0.10		mg/kg		0.1	29-AUG-13
Barium (Ba)			<0.50		mg/kg		0.5	29-AUG-13
Beryllium (Be)			<0.10		mg/kg		0.1	29-AUG-13
Cadmium (Cd)			<0.020		mg/kg		0.02	29-AUG-13
Chromium (Cr)			<1.0		mg/kg		1	29-AUG-13
Cobalt (Co)			<0.020		mg/kg		0.02	29-AUG-13
Copper (Cu)			<1.0		mg/kg		1	29-AUG-13
Lead (Pb)			<0.20		mg/kg		0.2	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-1 MB								
Molybdenum (Mo)			<0.020		mg/kg		0.02	29-AUG-13
Nickel (Ni)			<0.50		mg/kg		0.5	29-AUG-13
Selenium (Se)			<0.50		mg/kg		0.5	29-AUG-13
Silver (Ag)			<0.10		mg/kg		0.1	29-AUG-13
Thallium (Tl)			<0.10		mg/kg		0.1	29-AUG-13
Tin (Sn)			<5.0		mg/kg		5	29-AUG-13
Uranium (U)			<0.020		mg/kg		0.02	29-AUG-13
Vanadium (V)			<0.50		mg/kg		0.5	29-AUG-13
Zinc (Zn)			<10		mg/kg		10	29-AUG-13
MOISTURE-WP	**Soil**							
Batch R2674797								
WG1729267-1 DUP		**L1348143-7**						
% Moisture		18	18		%	0.1	50	19-AUG-13
WG1729267-2 DUP		**L1349147-2**						
% Moisture		6.0	6.7		%	11	50	19-AUG-13
Batch R2682012								
WG1736591-1 DUP		**L1353973-1**						
% Moisture		0.60	0.55		%	9.9	50	29-AUG-13
WG1736591-2 DUP		**L1354733-4**						
% Moisture		35	34		%	1.2	50	29-AUG-13
Batch R2682946								
WG1737505-7 DUP		**L1348902-25**						
% Moisture		20	19		%	2.6	50	30-AUG-13
WG1737505-8 DUP		**L1354756-5**						
% Moisture		25	18		%	35	50	30-AUG-13
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-6 DUP		**L1348902-21**						
1-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
2-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthylene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acridine		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Anthracene		<0.0040	<0.0040	RPD-NA	mg/kg	N/A	50	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-6 DUP		**L1348902-21**						
Benzo(a)anthracene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(a)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b&j)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(g,h,i)perylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(k)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Chrysene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Dibenzo(a,h)anthracene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluorene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Indeno(1,2,3-cd)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Phenanthrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Quinoline		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
WG1739498-5 LCS								
1-Methyl Naphthalene			91.0		%		60-130	03-SEP-13
2-Methyl Naphthalene			86.6		%		60-130	03-SEP-13
Acenaphthene			95.1		%		60-130	03-SEP-13
Acenaphthylene			94.2		%		60-130	03-SEP-13
Acridine			91.0		%		60-130	03-SEP-13
Anthracene			96.7		%		60-130	03-SEP-13
Benzo(a)anthracene			91.5		%		60-130	03-SEP-13
Benzo(a)pyrene			90.4		%		60-130	03-SEP-13
Benzo(b)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(b&j)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(g,h,i)perylene			92.4		%		60-130	03-SEP-13
Benzo(k)fluoranthene			96.6		%		60-130	03-SEP-13
Chrysene			85.0		%		60-130	03-SEP-13
Dibenzo(a,h)anthracene			88.2		%		60-130	03-SEP-13
Fluoranthene			96.6		%		60-130	03-SEP-13
Fluorene			88.4		%		60-130	03-SEP-13
Indeno(1,2,3-cd)pyrene			87.1		%		60-130	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-5 LCS								
Naphthalene			86.4		%		50-130	03-SEP-13
Phenanthrene			97.8		%		60-130	03-SEP-13
Pyrene			97.4		%		60-130	03-SEP-13
Quinoline			86.4		%		60-130	03-SEP-13
WG1739498-4 MB								
1-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
2-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Acenaphthene			<0.0050		mg/kg		0.005	03-SEP-13
Acenaphthylene			<0.0050		mg/kg		0.005	03-SEP-13
Acridine			<0.010		mg/kg		0.01	03-SEP-13
Anthracene			<0.0040		mg/kg		0.004	03-SEP-13
Benzo(a)anthracene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(a)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b&j)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Chrysene			<0.010		mg/kg		0.01	03-SEP-13
Dibenzo(a,h)anthracene			<0.0050		mg/kg		0.005	03-SEP-13
Fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Fluorene			<0.010		mg/kg		0.01	03-SEP-13
Indeno(1,2,3-cd)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Phenanthrene			<0.010		mg/kg		0.01	03-SEP-13
Pyrene			<0.010		mg/kg		0.01	03-SEP-13
Quinoline			<0.010		mg/kg		0.01	03-SEP-13
Surrogate: Acenaphthene d10			102.5		%		50-130	03-SEP-13
Surrogate: Chrysene d12			97.6		%		50-130	03-SEP-13
Surrogate: Naphthalene d8			102.4		%		50-130	03-SEP-13
Surrogate: Phenanthrene d10			106.9		%		50-130	03-SEP-13
PCB-WP	**Soil**							

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-WP	**Soil**							
Batch R2683309								
WG1737551-3 DUP		**L1348143-19**						
Aroclor 1016		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1221		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1232		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1242		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1248		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1254		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1260		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1262		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
Aroclor 1268		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	30-AUG-13
WG1737551-2 LCS								
Aroclor 1260			81.7		%		65-130	30-AUG-13
WG1737551-1 MB								
Aroclor 1016			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1221			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1232			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1242			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1248			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1254			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1260			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1262			<0.10		mg/kg		0.1	30-AUG-13
Aroclor 1268			<0.10		mg/kg		0.1	30-AUG-13
Surrogate: Decachlorobiphenyl			114.0		%		50-150	30-AUG-13

Quality Control Report

Workorder: L1348143 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

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.

Quality Control Report

Workorder: L1348143 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
% Moisture							
	19	14-AUG-13 12:00	29-AUG-13 08:35	14	15	days	EHT

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1348143 were received on 15-AUG-13 11:10.

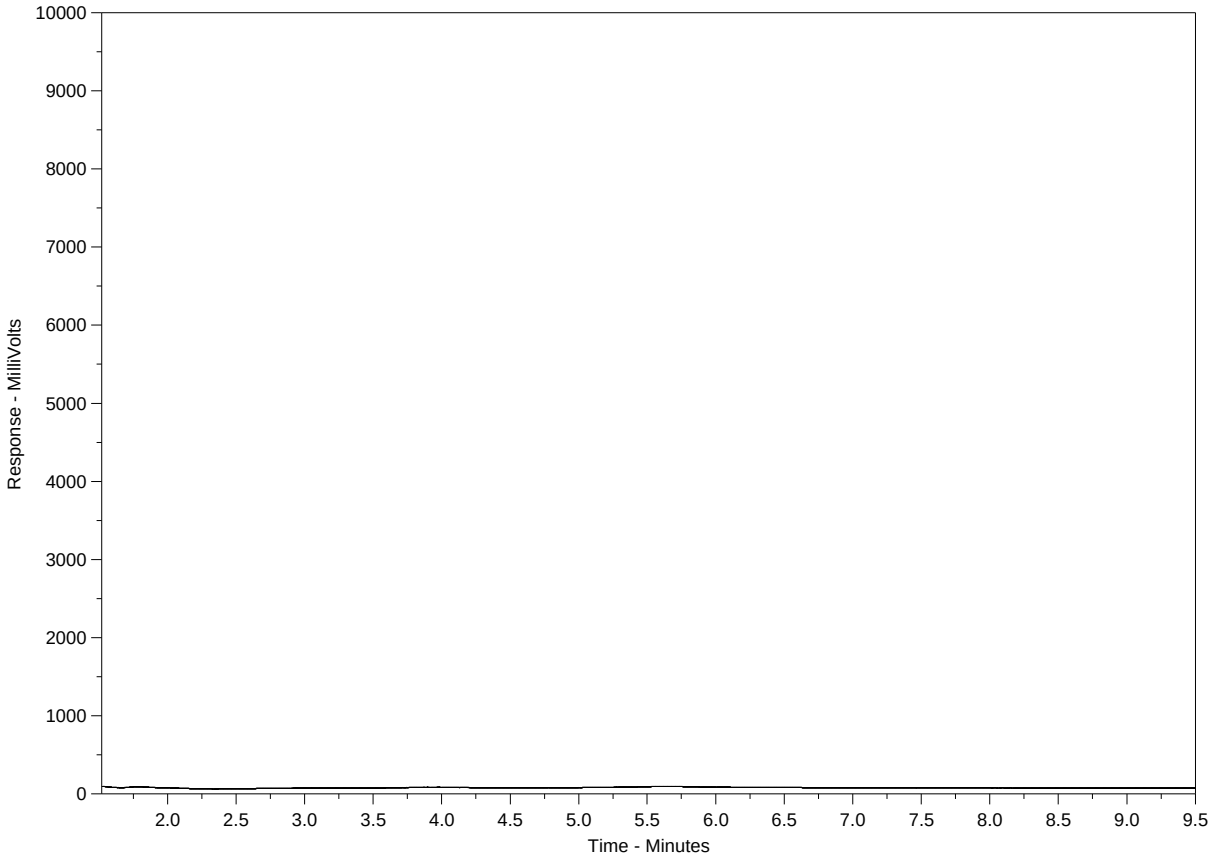
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

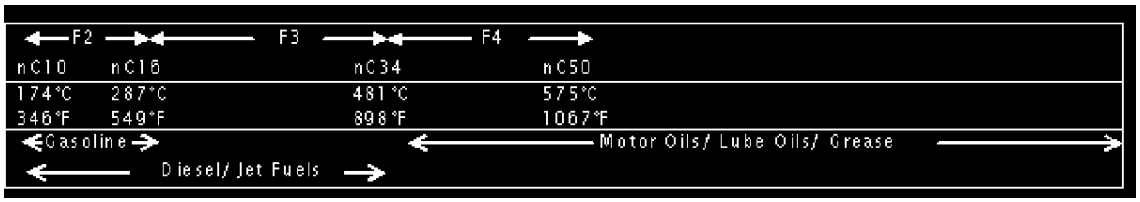
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348143-2
Client Sample ID: 5107150813071





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

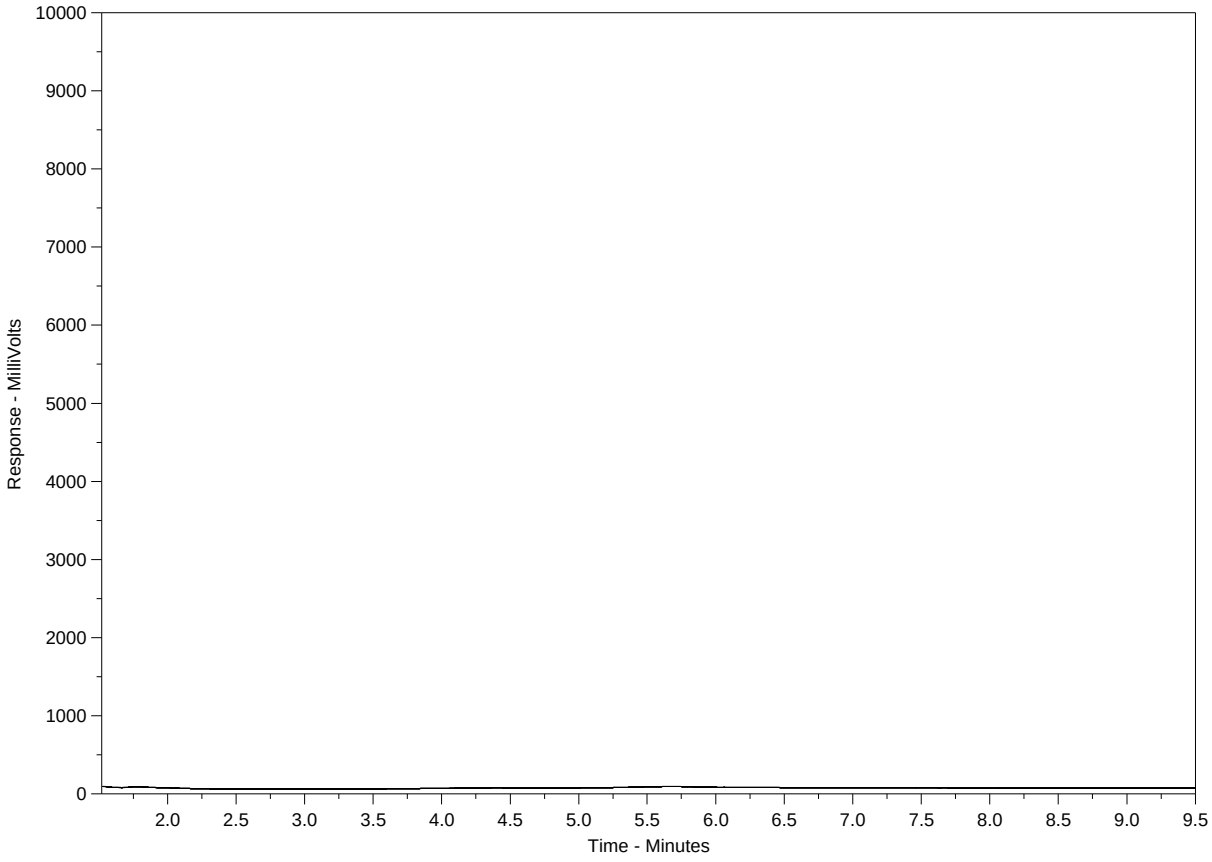
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

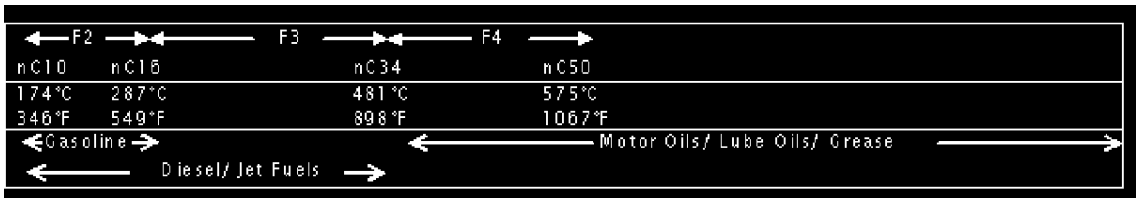
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348143-7
Client Sample ID: 5107150813083





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

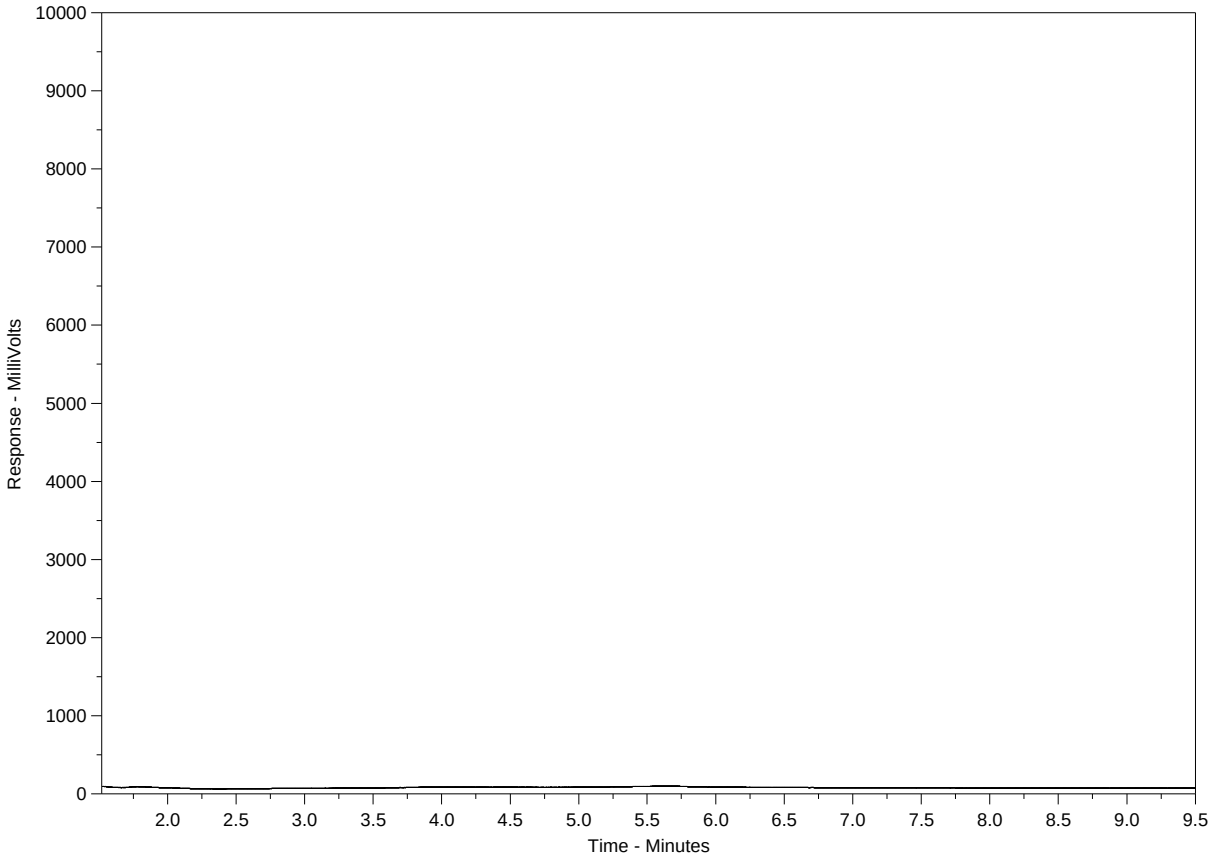
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

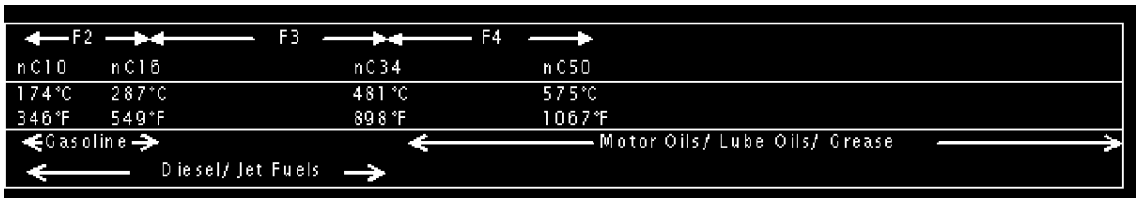
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348143-12
Client Sample ID: 5107140813042





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

190 Colonnade Road, Unit
Nepean, ON K2E 7J5
Phone: (613) 225-8279
Fax: (613) 225-2801
Toll Free: 1-800-668-9878

L1348143-COFC

L1348143

C of C # 00000

JSTODY / ANALYTICAL SERVICES REQUEST FORM

Page ___ of ___

; 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			
5 day (regular)	X	2 day TAT (50%)	
3-4 day (regular)		Next day TAT (100%)	
		Same day TAT (200%)	

COMPANY NAME	Concentric Associates
OFFICE	Ottawa / Winnipeg
PROJECT MANAGER	Andrea Johnson
PROJECT #	
PHONE	519-452-7700 ext 2005
FAX	
ACCOUNT #	22595
QUOTATION #	Q40527
PO #	

CRITERIA — Criteria on report YES___ NO___

Reg 153/11
Table 1 2 3 4 5 6 7 8

TCLP _____ MISA _____ PWQO _____
ODWS _____ OTHER _____

REPORT FORMAT/DISTRIBUTION

EMAIL ___X___ FAX _____ BOTH _____
SELECT: PDF _____ DIGITAL _____ BOTH _____
EMAIL 1 __andrea@concentric.com_____
EMAIL 2 _____

ANALYSIS REQUEST

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

SUBMISSION #

ENTERED BY:

DATE/TIME ENTERED:

BIN #:

SAMPLING INFORMATION

	Sample Date/Time		TYPE		MATRIX																
	Date (dd-mm-yy)	Time (24hr) (hh:mm)	COMP	GRAB	WATER	SOIL	AIR	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	CCME metals	PAH	PCB	BTEX, F1-F4	VOC	7410					COMMENTS	LAB ID
1	15-08-13	9:00				X		510715081306 9	4												
2								071													
3		9:30						073													
4								076													
5		10:00						078													
6								080													
7		10:30						083	3												
8								084	3												
9		11:00						086	3												
10								088	3												
11	Aug14/13	9:00						510714081304 1	4												
12		12:30						042	4												
13		1300						044	4												
14		1330						048	4												

SPECIAL INSTRUCTIONS/COMMENTS	THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)	SAMPLE CONDITION
	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

SAMPLED BY: Andrea Johnson	DATE & TIME	RECEIVED BY: TT	DATE & TIME 13/8/2013 11:10AM	OBSERVATIONS Yes___ No___ If yes add SIF	INIT
RELINQUISHED BY:	DATE & TIME	RECEIVED AT LAB BY:	DATE & TIME		

CONCENTRIC ASSOCIATES
INTERNATIONAL INCORPORATED
ATTN: ANDREA JOHNSON
5310 Canotek
Unit 30
Ottawa ON K1J 9N5

Date Received: 15-AUG-13
Report Date: 05-SEP-13 13:41 (MT)
Version: FINAL REV. 2

Client Phone: 613-824-8248

Certificate of Analysis

Lab Work Order #: L1348902

Project P.O. #: NOT SUBMITTED
Job Reference: 13-S107-E
C of C Numbers:
Legal Site Desc:

Comments: ADDITIONAL 26-AUG-13 08:26

05-SEP-13: Metals and PAH analysis added to samples -16, -19, -21, -22, -23, -24, -25 in this version of the report.

Bryan Mark
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1348902-1 5107140813 026 Sampled By: CLIENT on 14-AUG-13 @ 13:30 Matrix: Soil							
Physical Tests							
% Moisture	32		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-2 5107140813 025 Sampled By: CLIENT on 14-AUG-13 @ 13:45 Matrix: Soil							
Physical Tests							
% Moisture	20		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	0.0052		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	5.10		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	0.653		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	11.4	DLA	0.25	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	12.1		0.25	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	333	DLA	50	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	316		50	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	407		90	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	104.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	73		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-8 5107140813 024 Sampled By: CLIENT on 14-AUG-13 @ 15:15 Matrix: Soil							
Physical Tests							
% Moisture	19		0.10	%	19-AUG-13	19-AUG-13	R2674797

* 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
L1348902-8 5107140813 024 Sampled By: CLIENT on 14-AUG-13 @ 15:15 Matrix: Soil							
Physical Tests							
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	0.079		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	0.186		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	0.458		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	0.64		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	100.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-9 5107140813 027 Sampled By: CLIENT on 14-AUG-13 @ 15:30 Matrix: Soil							
Physical Tests							
% Moisture	33		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	105.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-11 5107140813 031 Sampled By: CLIENT on 14-AUG-13 @ 16:00 Matrix: Soil							
Physical Tests							
% Moisture	19		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							

* 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
L1348902-11 5107140813 031 Sampled By: CLIENT on 14-AUG-13 @ 16:00 Matrix: Soil							
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-12 5107140813 032 Sampled By: CLIENT on 14-AUG-13 @ 16:15 Matrix: Soil							
Physical Tests							
% Moisture	29		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.5		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-14 5107140813 036 Sampled By: CLIENT on 14-AUG-13 @ 16:45 Matrix: Soil							
Physical Tests							
% Moisture	21		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2675608

* 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
L1348902-14 5107140813 036 Sampled By: CLIENT on 14-AUG-13 @ 16:45 Matrix: Soil							
Volatile Organic Compounds							
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2675608
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2675608
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2675608
F1-BTEX	<10		10	mg/kg		21-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		21-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	90.0		70-130	%	17-AUG-13	20-AUG-13	R2675608
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	64		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-16 5107150813 202 Sampled By: CLIENT on 15-AUG-13 @ 08:15 Matrix: Soil							
Physical Tests							
% Moisture	33		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.42		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	7.29		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	182		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.89		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.421		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	35.8		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	15.0		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	31.4		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	11.9		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	2.52		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	60.7		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.61		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.19		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.29		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	1.55		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	56.7		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	72		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157

* 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
L1348902-16 5107150813 202 Sampled By: CLIENT on 15-AUG-13 @ 08:15 Matrix: Soil							
Polycyclic Aromatic Hydrocarbons							
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	102.4		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	91.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	105.0		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	102.8		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-19 5107150813 206 Sampled By: CLIENT on 15-AUG-13 @ 09:00 Matrix: Soil							
Physical Tests							
% Moisture	30		0.10	%	31-AUG-13	04-SEP-13	R2682946
Metals							
Antimony (Sb)	0.42		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	8.25		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	189		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	1.04		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.282		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	44.5		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	15.0		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	36.1		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	15.2		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362

* 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
L1348902-19 5107150813 206 Sampled By: CLIENT on 15-AUG-13 @ 09:00 Matrix: Soil							
Metals							
Molybdenum (Mo)	2.01		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	45.1		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.72		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.22		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.31		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	1.54		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	66.8		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	85		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	104.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	92.5		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	106.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	102.6		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-21 5107150813 213 Sampled By: CLIENT on 15-AUG-13 @ 09:30 Matrix: Soil							
Physical Tests							

* 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
L1348902-21 5107150813 213 Sampled By: CLIENT on 15-AUG-13 @ 09:30 Matrix: Soil							
Physical Tests							
% Moisture	18		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.16		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	3.08		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	74.9		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.41		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.136		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	22.2		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	5.84		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	14.4		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	6.05		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	0.359		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	17.2		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.58		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.12		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.15		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	0.801		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	31.7		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	31		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157

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

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1348902-21 5107150813 213 Sampled By: CLIENT on 15-AUG-13 @ 09:30 Matrix: Soil							
Polycyclic Aromatic Hydrocarbons							
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	103.6		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	92.0		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	104.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	103.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-22 5107150813 214 Sampled By: CLIENT on 15-AUG-13 @ 09:45 Matrix: Soil							
Physical Tests							
% Moisture	6.3		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.18		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	1.85		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	37.7		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.17		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.109		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	12.5		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	3.33		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	10.7		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	10.7		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	0.372		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	9.80		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.65		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	<0.10		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	<0.10		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	0.455		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	16.8		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	35		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	0.0129		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.010	DLM	0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.020	DLM	0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0060	DLM	0.0060	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	0.012		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	0.018		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157

* 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
L1348902-22 5107150813 214 Sampled By: CLIENT on 15-AUG-13 @ 09:45 Matrix: Soil							
Polycyclic Aromatic Hydrocarbons							
Benzo(b)fluoranthene	0.018		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	0.018		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	0.034		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	0.016		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	0.011		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	0.040	EMPC	0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.015	DLM	0.015	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	0.084		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.025	DLM	0.025	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	99.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	98.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	101.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	102.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	0.21		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-23 5107150813 218 Sampled By: CLIENT on 15-AUG-13 @ 10:00 Matrix: Soil							
Physical Tests							
% Moisture	11		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.20		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	2.53		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	71.2		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.36		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.232		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	18.1		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	5.02		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	15.0		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	55.9		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	0.379		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	14.6		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.67		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	<0.10		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.12		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868

* 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
L1348902-23 5107150813 218 Sampled By: CLIENT on 15-AUG-13 @ 10:00 Matrix: Soil							
Metals							
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	0.530		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	27.0		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	59		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	0.0053		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	0.017		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	0.016		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	0.023		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	0.023		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	0.034		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	0.017		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	0.023		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	0.039		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	0.018		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	0.025		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	0.033		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	100.8		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	94.2		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	101.1		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	104.1		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	0.026		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	0.34		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-24 5107150813 222 Sampled By: CLIENT on 15-AUG-13 @ 10:15 Matrix: Soil							
Physical Tests							
% Moisture	23		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.34		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	7.76		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	181		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868

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

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Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1348902-24 5107150813 222 Sampled By: CLIENT on 15-AUG-13 @ 10:15 Matrix: Soil							
Metals							
Beryllium (Be)	0.87		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.257		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	40.6		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	12.5		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	27.1		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	12.8		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	0.224		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	36.2		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	0.62		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.14		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.27		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	0.821		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	73.0		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	73		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	103.1		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	94.9		50-130	%	26-AUG-13	03-SEP-13	R2687157

* 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
L1348902-24 5107150813 222 Sampled By: CLIENT on 15-AUG-13 @ 10:15 Matrix: Soil							
Polycyclic Aromatic Hydrocarbons							
Surrogate: Naphthalene d8	102.7		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	105.5		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-25 5107150813 227 Sampled By: CLIENT on 15-AUG-13 @ 10:30 Matrix: Soil							
Physical Tests							
% Moisture	20		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.22		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Arsenic (As)	5.94		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Barium (Ba)	67.5		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Beryllium (Be)	0.34		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cadmium (Cd)	0.158		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Chromium (Cr)	17.5		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Cobalt (Co)	4.90		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Copper (Cu)	13.5		1.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Lead (Pb)	5.64		0.20	mg/kg	29-AUG-13	29-AUG-13	R2682868
Mercury (Hg)-Total	<0.050		0.050	mg/kg	29-AUG-13	30-AUG-13	R2683362
Molybdenum (Mo)	0.430		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Nickel (Ni)	14.6		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Selenium (Se)	<0.50		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Silver (Ag)	0.10		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Thallium (Tl)	0.15		0.10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Tin (Sn)	<5.0		5.0	mg/kg	29-AUG-13	29-AUG-13	R2682868
Uranium (U)	0.892		0.020	mg/kg	29-AUG-13	29-AUG-13	R2682868
Vanadium (V)	32.9		0.50	mg/kg	29-AUG-13	29-AUG-13	R2682868
Zinc (Zn)	30		10	mg/kg	29-AUG-13	29-AUG-13	R2682868
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157

* 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
L1348902-25 5107150813 227 Sampled By: CLIENT on 15-AUG-13 @ 10:30 Matrix: Soil							
Polycyclic Aromatic Hydrocarbons							
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	87.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	90.0		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	84.8		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	94.8		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348902-27 5107150813 091 Sampled By: CLIENT on 15-AUG-13 @ 13:25 Matrix: Soil							
Physical Tests							
% Moisture	17		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	0.526		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	4.64		0.015	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	7.86	DLA	0.50	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	11.9	DLA	0.50	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	23.5	DLA	0.50	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	35.4		0.71	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	190	DLA	100	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	140		100	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	670		130	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	127.7		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	323		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	157		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-28 5107150813 092 Sampled By: CLIENT on 15-AUG-13 @ 13:35 Matrix: Soil							
Physical Tests							
% Moisture	18		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							

* 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
L1348902-28 5107150813 092 Sampled By: CLIENT on 15-AUG-13 @ 13:35 Matrix: Soil							
Volatile Organic Compounds							
Benzene	0.454		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	14.6	DLA	0.30	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	18.6	DLA	1.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	35.4	DLA	1.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	74.1	DLA	1.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	110		1.4	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	550	DLA	200	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	410		200	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	1210		210	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	125.1		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	551		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	109		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-29 5107150813 093 Sampled By: CLIENT on 15-AUG-13 @ 13:45 Matrix: Soil							
Physical Tests							
% Moisture	31		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	0.215		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	2.38		0.015	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	0.581		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	1.84		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	5.58		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	7.42		0.10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	49		10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	39		10	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	124		76	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	126.8		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	74		25	mg/kg	19-AUG-13	19-AUG-13	R2676278
F3 (C16-C34)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
F4 (C34-C50)	<50		50	mg/kg	19-AUG-13	19-AUG-13	R2676278
Chrom. to baseline at nC50	YES				19-AUG-13	19-AUG-13	R2676278
L1348902-31 5107150813 095 Sampled By: CLIENT on 15-AUG-13 @ 14:05 Matrix: Soil							
Physical Tests							
% Moisture	18		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	0.622		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265

* 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
L1348902-31 5107150813 095 Sampled By: CLIENT on 15-AUG-13 @ 14:05 Matrix: Soil							
Volatile Organic Compounds							
Ethyl benzene	20.4	DLA	1.5	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	27.4	DLA	5.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	49.7	DLA	5.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	124	DLA	5.0	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	173		7.1	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	680	DLA	100	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	460		100	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	1240		130	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	124.1		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	430		25	mg/kg	20-AUG-13	20-AUG-13	R2676672
F3 (C16-C34)	124		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
F4 (C34-C50)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
Chrom. to baseline at nC50	YES				20-AUG-13	20-AUG-13	R2676672
L1348902-34 5107150813 098 Sampled By: CLIENT Matrix: Soil							
Physical Tests							
% Moisture	20		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	<10		10	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	121.6		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	20-AUG-13	20-AUG-13	R2676672
F3 (C16-C34)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
F4 (C34-C50)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
Chrom. to baseline at nC50	YES				20-AUG-13	20-AUG-13	R2676672

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

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjusted For Sample Matrix Effects
EMPC	Estimated Maximum Possible Concentration. Parameter detected but didn't meet all criteria for positive identification.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA SW846 8260B REV 2

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	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.

F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC Dec-2000 - Pub# 1310

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.

HG-200.2-CVAF-WP	Soil	Mercury Total	EPA 7470A Rev 1,1994

A hydrochloric acid/nitric acid and potassium persulphate block digestion is employed to oxidize the organomercury to inorganic mercury. After digestion, samples are analyzed using cold vapour techniques.

MET-200.2-MS-WP	Soil	Metals	EPA 200.8/200.2 /BCMOE-S

This analysis is carried out using procedures adapted from US EPA method 200.2. Sample preparation procedure for spectrochemical determination of total recoverable elements . Soil samples are dried (<60 C) and homogenized and a representative subsample of the dry material is digested. The digested samples are analyzed by ICPMS.

The results are reported as mg/Kg dry weight or mg/Kg wet weight this is equivalent to ug/g dry weight or ug/g wet weight.

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that maybe environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not mobile in the environment. This method has known stability issues for determining Silicon.

PAH,PANH-WP	Soil	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Samples are mix with sodium sulfate and extracted with acetone/dichloromethane using a combination of high frequency sonication and shake using a platform shaker. After extract concentration, samples are analyzed by GC/MS.

** 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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

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 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: L1348902 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R2675608								
WG1730024-4 DUP		**L1348143-7**						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Ethyl benzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	20-AUG-13
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
m+p-Xylenes		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
F1 (C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	50	20-AUG-13
WG1730024-2 LCS								
Benzene			95.6		%		70-130	19-AUG-13
Toluene			95.7		%		70-130	19-AUG-13
Ethyl benzene			94.0		%		70-130	19-AUG-13
o-Xylene			102.5		%		70-130	19-AUG-13
m+p-Xylenes			92.5		%		70-130	19-AUG-13
WG1730024-3 LCS								
F1 (C6-C10)			85.3		%		80-120	19-AUG-13
WG1730024-1 MB								
Benzene			<0.0050		mg/kg		0.005	19-AUG-13
Toluene			<0.050		mg/kg		0.05	19-AUG-13
Ethyl benzene			<0.015		mg/kg		0.015	19-AUG-13
o-Xylene			<0.050		mg/kg		0.05	19-AUG-13
m+p-Xylenes			<0.050		mg/kg		0.05	19-AUG-13
F1 (C6-C10)			<10		mg/kg		10	19-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			98.0		%		70-130	19-AUG-13
Batch R2677265								
WG1730024-8 DUP		**L1349147-2**						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Ethyl benzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	20-AUG-13
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
m+p-Xylenes		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
F1 (C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	50	20-AUG-13
WG1730024-6 LCS								
Benzene			105.1		%		70-130	20-AUG-13
Toluene			100.6		%		70-130	20-AUG-13
Ethyl benzene			108.7		%		70-130	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R2677265								
WG1730024-6 LCS								
o-Xylene			112.7		%		70-130	20-AUG-13
m+p-Xylenes			96.0		%		70-130	20-AUG-13
WG1730024-7 LCS								
F1 (C6-C10)			87.6		%		80-120	20-AUG-13
WG1730024-5 MB								
Benzene			<0.0050		mg/kg		0.005	20-AUG-13
Toluene			<0.050		mg/kg		0.05	20-AUG-13
Ethyl benzene			<0.015		mg/kg		0.015	20-AUG-13
o-Xylene			<0.050		mg/kg		0.05	20-AUG-13
m+p-Xylenes			<0.050		mg/kg		0.05	20-AUG-13
F1 (C6-C10)			<10		mg/kg		10	20-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			103.0		%		70-130	20-AUG-13
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676278								
WG1729483-3 DUP		**L1348902-14**						
F2 (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	19-AUG-13
F3 (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
F4 (C34-C50)		64	<50	RPD-NA	mg/kg	N/A	40	19-AUG-13
WG1729483-4 IRM		**ALS PHC2 IRM**						
F2 (C10-C16)			97.7		%		70-130	19-AUG-13
F3 (C16-C34)			92.5		%		70-130	19-AUG-13
F4 (C34-C50)			77.0		%		70-130	19-AUG-13
WG1729483-2 LCS								
F2 (C10-C16)			99.6		%		80-120	19-AUG-13
F3 (C16-C34)			102.8		%		80-120	19-AUG-13
F4 (C34-C50)			87.3		%		80-120	19-AUG-13
WG1729483-1 MB								
F2 (C10-C16)			<25		mg/kg		25	19-AUG-13
F3 (C16-C34)			<50		mg/kg		50	19-AUG-13
F4 (C34-C50)			<50		mg/kg		50	19-AUG-13
Batch R2676672								
WG1730364-3 DUP		**L1348902-34**						
F2 (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	20-AUG-13
F3 (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	20-AUG-13
F4 (C34-C50)		<50	<50	RPD-NA	mg/kg	N/A	40	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676672								
WG1730364-4 IRM		**ALS PHC2 IRM**						
F2 (C10-C16)			79.1		%		70-130	20-AUG-13
F3 (C16-C34)			79.9		%		70-130	20-AUG-13
F4 (C34-C50)			76.9		%		70-130	20-AUG-13
WG1730364-2 LCS								
F2 (C10-C16)			86.0		%		80-120	20-AUG-13
F3 (C16-C34)			95.9		%		80-120	20-AUG-13
F4 (C34-C50)			85.0		%		80-120	20-AUG-13
WG1730364-1 MB								
F2 (C10-C16)			<25		mg/kg		25	20-AUG-13
F3 (C16-C34)			<50		mg/kg		50	20-AUG-13
F4 (C34-C50)			<50		mg/kg		50	20-AUG-13
HG-200.2-CVAF-WP	**Soil**							
Batch R2683362								
WG1737861-2 CRM		**NRC PACS-2**						
Mercury (Hg)-Total			108.1		%		70-130	30-AUG-13
WG1737861-3 CRM		**CANMET TILL-1**						
Mercury (Hg)-Total			0.093		mg/kg		0.042-0.142	30-AUG-13
WG1737861-4 DUP		**L1348902-21**						
Mercury (Hg)-Total		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	30-AUG-13
WG1737861-1 MB								
Mercury (Hg)-Total			<0.050		mg/kg		0.05	30-AUG-13
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-2 CRM		**NRC PACS-2**						
Antimony (Sb)			126.9		%		70-130	29-AUG-13
Arsenic (As)			100.4		%		70-130	29-AUG-13
Barium (Ba)			80.8		%		70-130	29-AUG-13
Beryllium (Be)			84.0		%		70-130	29-AUG-13
Cadmium (Cd)			122.8		%		70-130	29-AUG-13
Chromium (Cr)			102.2		%		70-130	29-AUG-13
Cobalt (Co)			98.2		%		70-130	29-AUG-13
Copper (Cu)			103.9		%		70-130	29-AUG-13
Lead (Pb)			104.8		%		70-130	29-AUG-13
Molybdenum (Mo)			114.1		%		70-130	29-AUG-13
Nickel (Ni)			100.5		%		70-130	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-2 CRM		**NRC PACS-2**						
Selenium (Se)			101.7		%		70-130	29-AUG-13
Silver (Ag)			108.6		%		70-130	29-AUG-13
Thallium (Tl)			99.8		%		70-130	29-AUG-13
Tin (Sn)			106.5		%		70-130	29-AUG-13
Uranium (U)			94.3		%		70-130	29-AUG-13
Vanadium (V)			104.9		%		70-130	29-AUG-13
Zinc (Zn)			95.5		%		70-130	29-AUG-13
WG1737358-3 CRM		**NRC MESS-3**						
Antimony (Sb)			106.3		%		70-130	29-AUG-13
Arsenic (As)			91.7		%		70-130	29-AUG-13
Barium (Ba)			103.4		%		70-130	29-AUG-13
Cadmium (Cd)			93.5		%		70-130	29-AUG-13
Chromium (Cr)			81.0		%		70-130	29-AUG-13
Cobalt (Co)			102.2		%		70-130	29-AUG-13
Copper (Cu)			107.2		%		70-130	29-AUG-13
Lead (Pb)			101.9		%		70-130	29-AUG-13
Molybdenum (Mo)			99.5		%		70-130	29-AUG-13
Nickel (Ni)			102.6		%		70-130	29-AUG-13
Selenium (Se)			116.5		%		70-130	29-AUG-13
Silver (Ag)			101.6		%		70-130	29-AUG-13
Tin (Sn)			84.6		%		70-130	29-AUG-13
Uranium (U)			99.4		%		70-130	29-AUG-13
Vanadium (V)			73.4		%		70-130	29-AUG-13
Zinc (Zn)			102.6		%		70-130	29-AUG-13
WG1737358-4 CRM		**OGGEO08**						
Antimony (Sb)			97.8		%		70-130	29-AUG-13
Arsenic (As)			99.9		%		70-130	29-AUG-13
Barium (Ba)			111.9		%		70-130	29-AUG-13
Beryllium (Be)			103.8		%		70-130	29-AUG-13
Cadmium (Cd)			88.5		%		70-130	29-AUG-13
Chromium (Cr)			97.7		%		70-130	29-AUG-13
Cobalt (Co)			93.2		%		70-130	29-AUG-13
Copper (Cu)			101.1		%		70-130	29-AUG-13
Lead (Pb)			98.3		%		70-130	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-4 CRM		**OGGEO08**						
Molybdenum (Mo)			114.4		%		70-130	29-AUG-13
Nickel (Ni)			101.8		%		70-130	29-AUG-13
Selenium (Se)			86.1		%		70-130	29-AUG-13
Silver (Ag)			94.4		%		70-130	29-AUG-13
Thallium (Tl)			100.9		%		70-130	29-AUG-13
Tin (Sn)			98.9		%		70-130	29-AUG-13
Uranium (U)			99.2		%		70-130	29-AUG-13
Vanadium (V)			100.1		%		70-130	29-AUG-13
Zinc (Zn)			100.6		%		70-130	29-AUG-13
WG1737358-6 DUP		**WG1737358-5**						
Antimony (Sb)		0.42	0.48		mg/kg	12	30	29-AUG-13
Arsenic (As)		8.31	8.45		mg/kg	1.6	30	29-AUG-13
Barium (Ba)		189	196		mg/kg	3.4	40	29-AUG-13
Beryllium (Be)		1.04	1.07		mg/kg	2.5	30	29-AUG-13
Cadmium (Cd)		0.282	0.287		mg/kg	1.7	30	29-AUG-13
Chromium (Cr)		44.5	44.8		mg/kg	0.8	30	29-AUG-13
Cobalt (Co)		15.0	15.3		mg/kg	1.8	30	29-AUG-13
Copper (Cu)		36.1	37.1		mg/kg	2.9	30	29-AUG-13
Lead (Pb)		15.2	15.4		mg/kg	1.6	40	29-AUG-13
Molybdenum (Mo)		2.01	2.06		mg/kg	2.7	40	29-AUG-13
Nickel (Ni)		45.1	47.2		mg/kg	4.5	30	29-AUG-13
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	29-AUG-13
Silver (Ag)		0.22	0.22		mg/kg	1.4	40	29-AUG-13
Thallium (Tl)		0.31	0.32		mg/kg	3.7	30	29-AUG-13
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	40	29-AUG-13
Uranium (U)		1.54	1.56		mg/kg	1.6	30	29-AUG-13
Vanadium (V)		66.8	63.9		mg/kg	4.4	30	29-AUG-13
Zinc (Zn)		89	88		mg/kg	0.8	30	29-AUG-13
WG1737358-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	29-AUG-13
Arsenic (As)			<0.10		mg/kg		0.1	29-AUG-13
Barium (Ba)			<0.50		mg/kg		0.5	29-AUG-13
Beryllium (Be)			<0.10		mg/kg		0.1	29-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2682868								
WG1737358-1 MB								
Cadmium (Cd)			<0.020		mg/kg		0.02	29-AUG-13
Chromium (Cr)			<1.0		mg/kg		1	29-AUG-13
Cobalt (Co)			<0.020		mg/kg		0.02	29-AUG-13
Copper (Cu)			<1.0		mg/kg		1	29-AUG-13
Lead (Pb)			<0.20		mg/kg		0.2	29-AUG-13
Molybdenum (Mo)			<0.020		mg/kg		0.02	29-AUG-13
Nickel (Ni)			<0.50		mg/kg		0.5	29-AUG-13
Selenium (Se)			<0.50		mg/kg		0.5	29-AUG-13
Silver (Ag)			<0.10		mg/kg		0.1	29-AUG-13
Thallium (Tl)			<0.10		mg/kg		0.1	29-AUG-13
Tin (Sn)			<5.0		mg/kg		5	29-AUG-13
Uranium (U)			<0.020		mg/kg		0.02	29-AUG-13
Vanadium (V)			<0.50		mg/kg		0.5	29-AUG-13
Zinc (Zn)			<10		mg/kg		10	29-AUG-13
MOISTURE-WP	**Soil**							
Batch R2674797								
WG1729267-1 DUP		**L1348143-7**						
% Moisture		18	18		%	0.1	50	19-AUG-13
WG1729267-2 DUP		**L1349147-2**						
% Moisture		6.0	6.7		%	11	50	19-AUG-13
Batch R2682946								
WG1737505-7 DUP		**L1348902-25**						
% Moisture		20	19		%	2.6	50	30-AUG-13
WG1737505-8 DUP		**L1354756-5**						
% Moisture		25	18		%	35	50	30-AUG-13
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-6 DUP		**L1348902-21**						
1-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
2-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthylene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acridine		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Anthracene		<0.0040	<0.0040	RPD-NA	mg/kg	N/A	50	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-6 DUP		**L1348902-21**						
Benzo(a)anthracene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(a)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b&j)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(g,h,i)perylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(k)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Chrysene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Dibenzo(a,h)anthracene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluorene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Indeno(1,2,3-cd)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Phenanthrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Quinoline		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
WG1739498-5 LCS								
1-Methyl Naphthalene			91.0		%		60-130	03-SEP-13
2-Methyl Naphthalene			86.6		%		60-130	03-SEP-13
Acenaphthene			95.1		%		60-130	03-SEP-13
Acenaphthylene			94.2		%		60-130	03-SEP-13
Acridine			91.0		%		60-130	03-SEP-13
Anthracene			96.7		%		60-130	03-SEP-13
Benzo(a)anthracene			91.5		%		60-130	03-SEP-13
Benzo(a)pyrene			90.4		%		60-130	03-SEP-13
Benzo(b)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(b&j)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(g,h,i)perylene			92.4		%		60-130	03-SEP-13
Benzo(k)fluoranthene			96.6		%		60-130	03-SEP-13
Chrysene			85.0		%		60-130	03-SEP-13
Dibenzo(a,h)anthracene			88.2		%		60-130	03-SEP-13
Fluoranthene			96.6		%		60-130	03-SEP-13
Fluorene			88.4		%		60-130	03-SEP-13
Indeno(1,2,3-cd)pyrene			87.1		%		60-130	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-5 LCS								
Naphthalene			86.4		%		50-130	03-SEP-13
Phenanthrene			97.8		%		60-130	03-SEP-13
Pyrene			97.4		%		60-130	03-SEP-13
Quinoline			86.4		%		60-130	03-SEP-13
WG1739498-4 MB								
1-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
2-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Acenaphthene			<0.0050		mg/kg		0.005	03-SEP-13
Acenaphthylene			<0.0050		mg/kg		0.005	03-SEP-13
Acridine			<0.010		mg/kg		0.01	03-SEP-13
Anthracene			<0.0040		mg/kg		0.004	03-SEP-13
Benzo(a)anthracene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(a)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b&j)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Chrysene			<0.010		mg/kg		0.01	03-SEP-13
Dibenzo(a,h)anthracene			<0.0050		mg/kg		0.005	03-SEP-13
Fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Fluorene			<0.010		mg/kg		0.01	03-SEP-13
Indeno(1,2,3-cd)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Phenanthrene			<0.010		mg/kg		0.01	03-SEP-13
Pyrene			<0.010		mg/kg		0.01	03-SEP-13
Quinoline			<0.010		mg/kg		0.01	03-SEP-13
Surrogate: Acenaphthene d10			102.5		%		50-130	03-SEP-13
Surrogate: Chrysene d12			97.6		%		50-130	03-SEP-13
Surrogate: Naphthalene d8			102.4		%		50-130	03-SEP-13
Surrogate: Phenanthrene d10			106.9		%		50-130	03-SEP-13

Quality Control Report

Workorder: L1348902 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

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.

Quality Control Report

Workorder: L1348902 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
% Moisture							
	19	15-AUG-13 09:00	04-SEP-13 10:33	14	20	days	EHT

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L1348902 were received on 15-AUG-13 14:20.

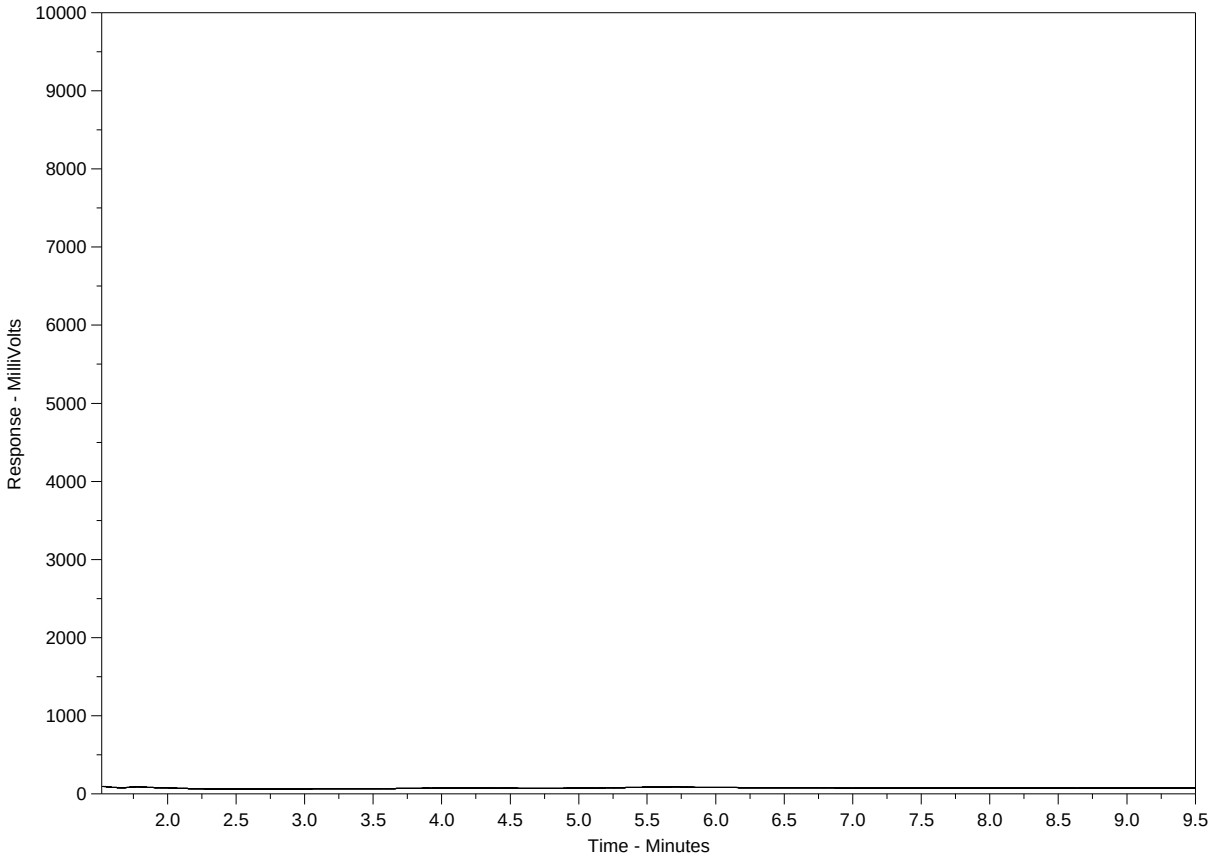
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

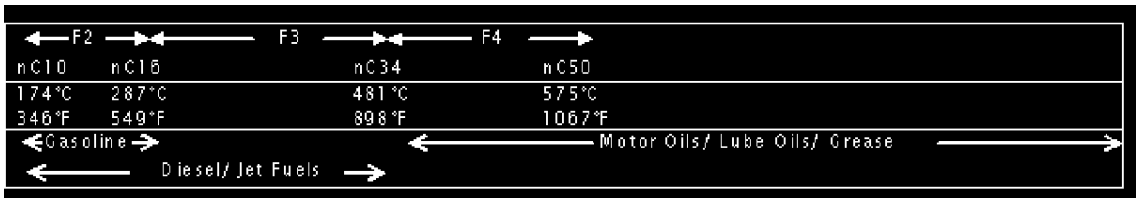
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-1
Client Sample ID: 5107140813 026





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

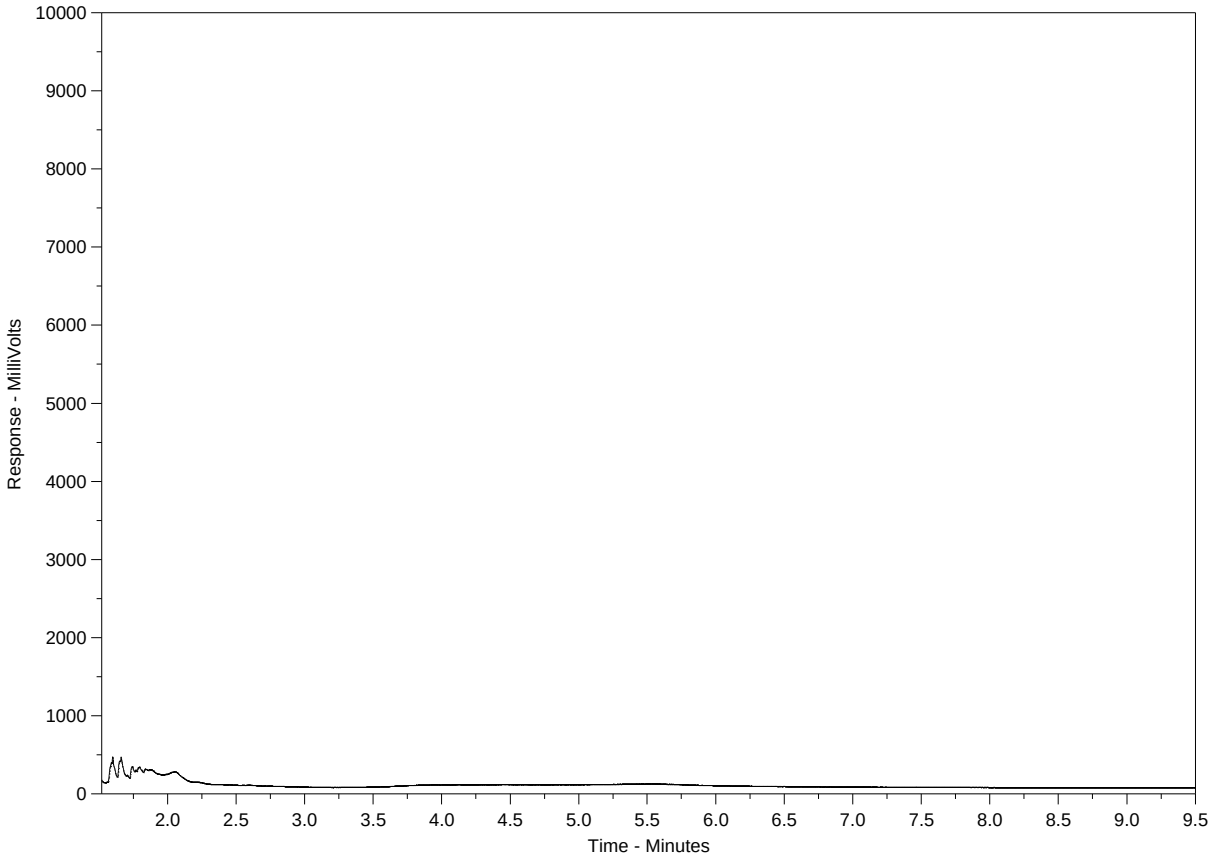
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

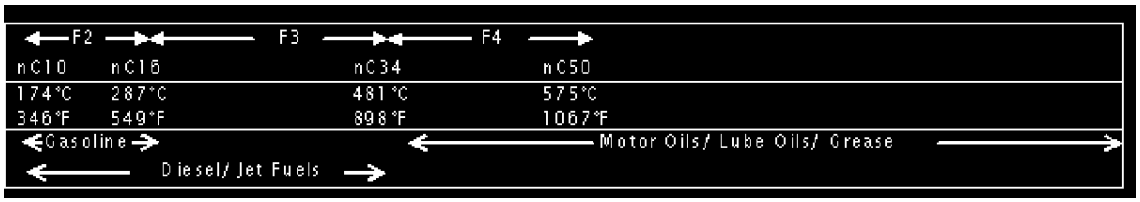
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-2
Client Sample ID: 5107140813 025





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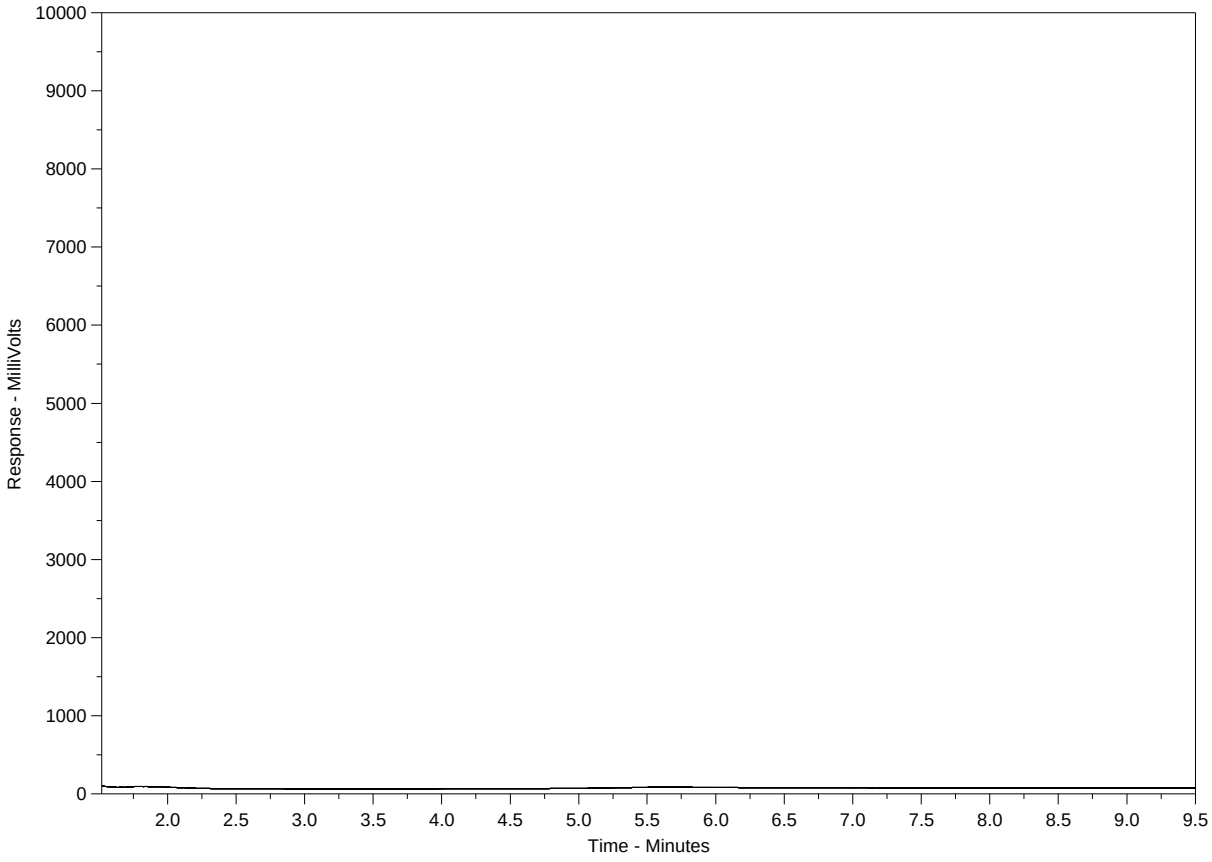
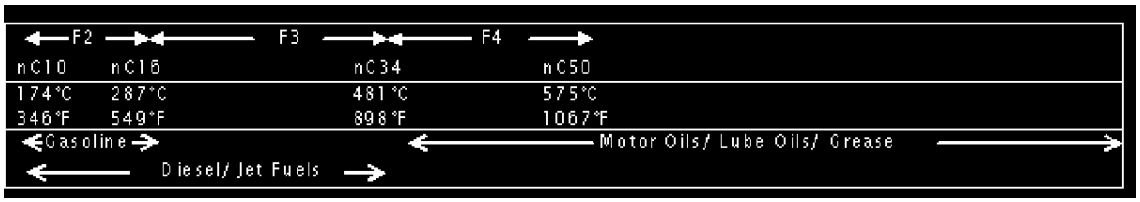
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-8
Client Sample ID: 5107140813 024





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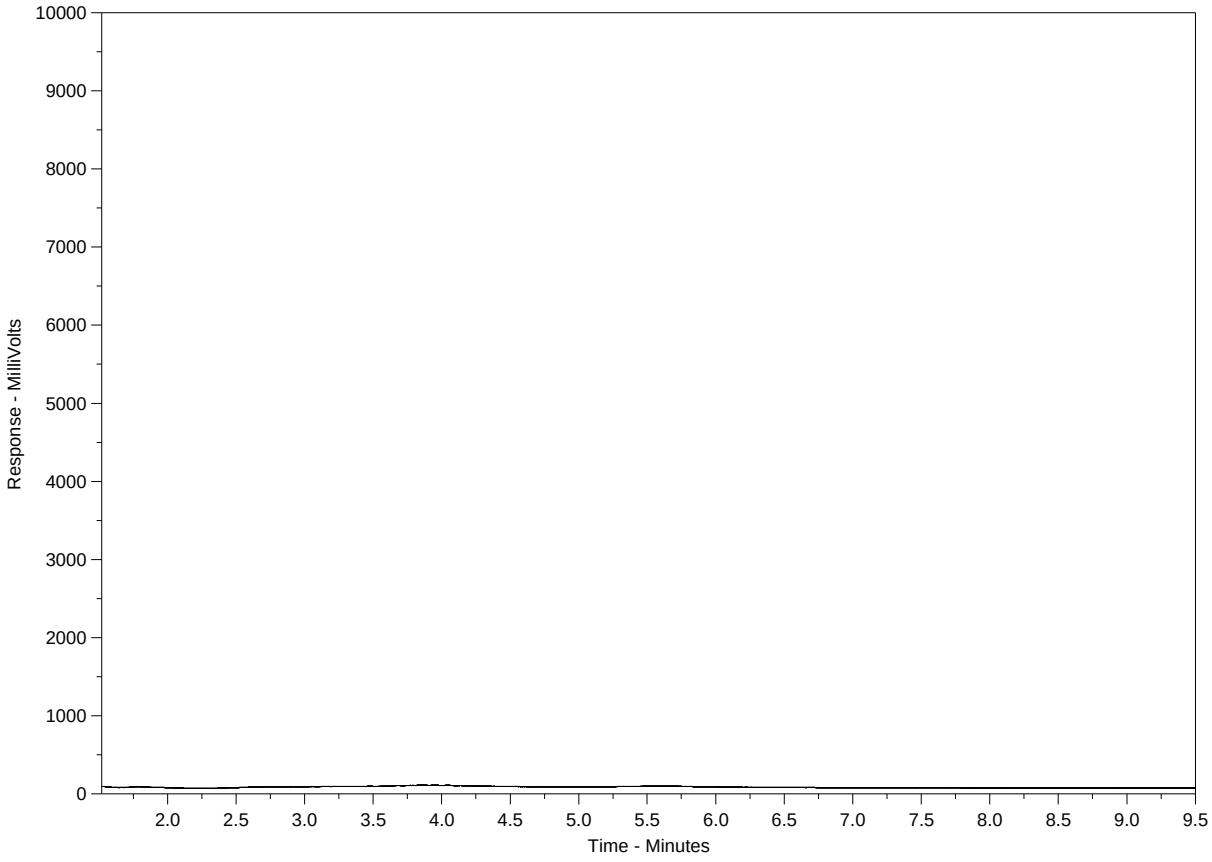
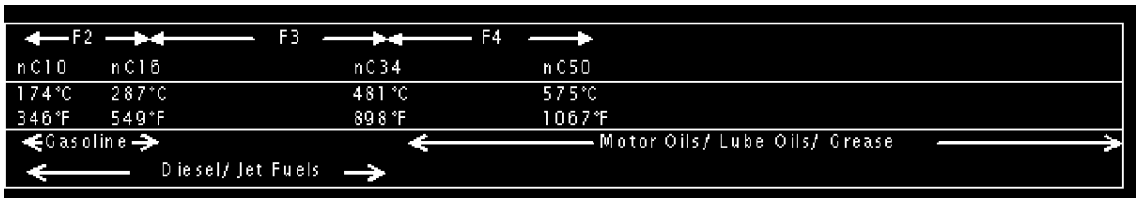
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-9
Client Sample ID: 5107140813 027





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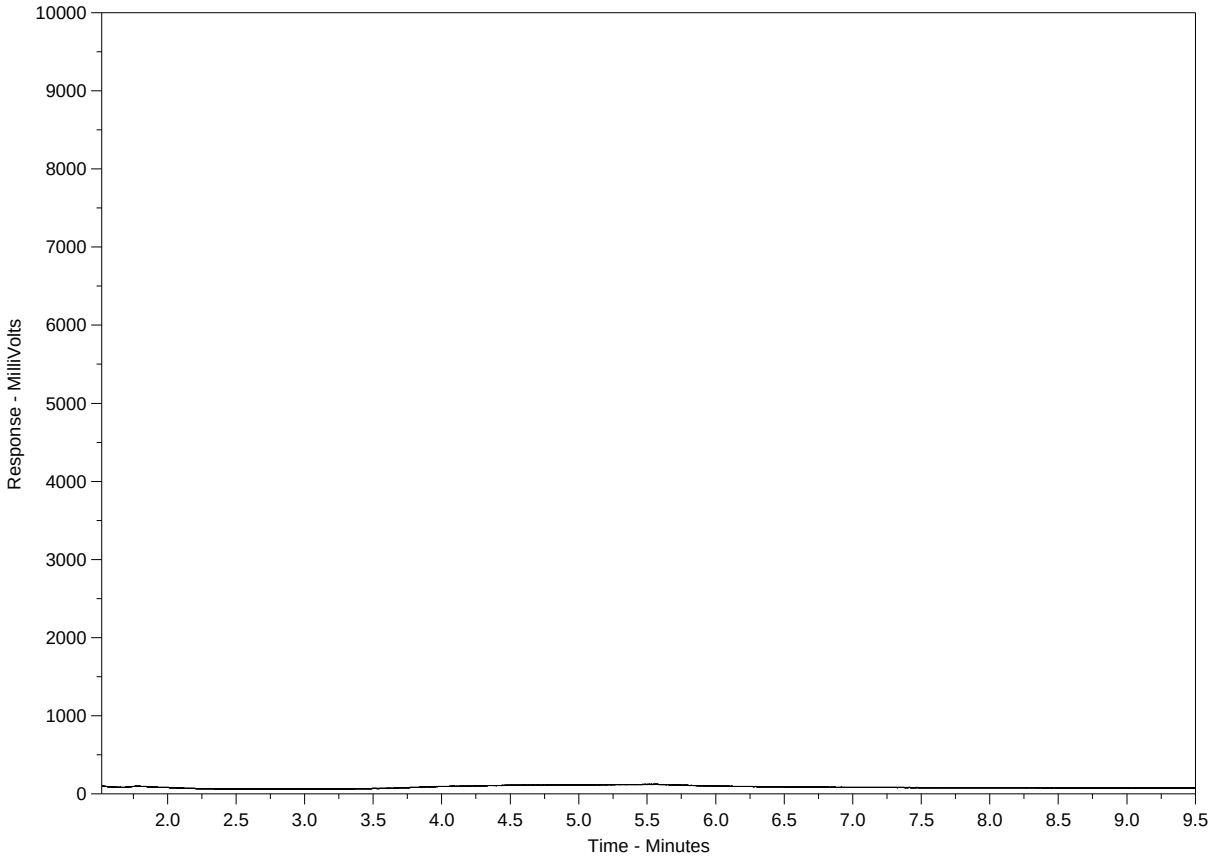
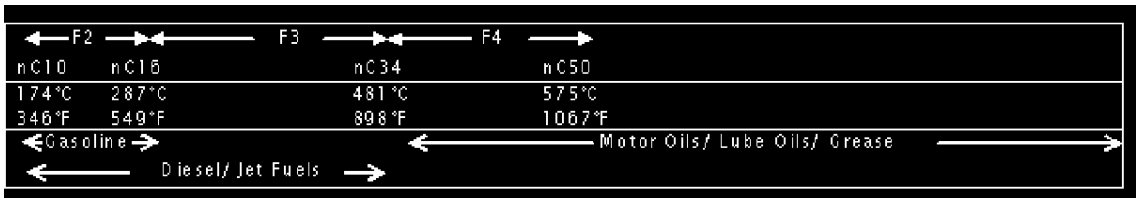
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-11
Client Sample ID: 5107140813 031





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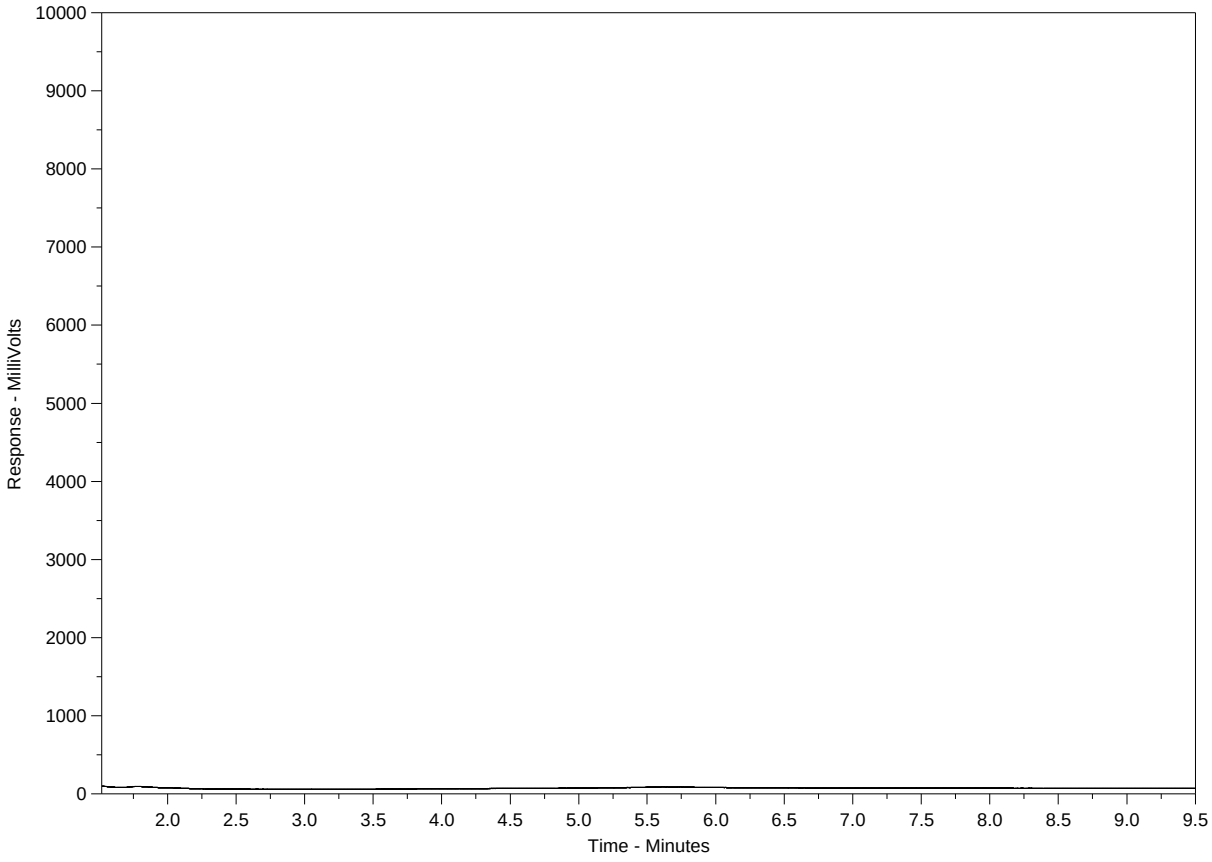
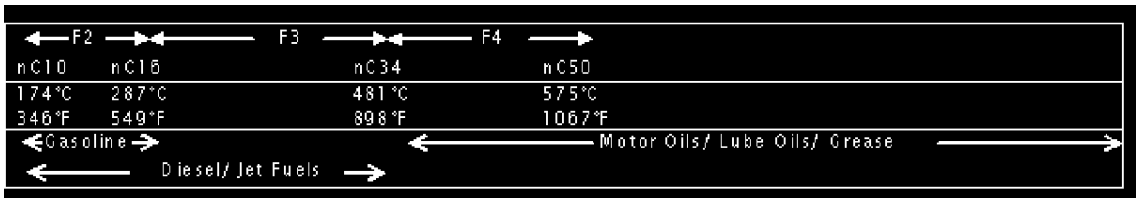
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-12
Client Sample ID: 5107140813 032





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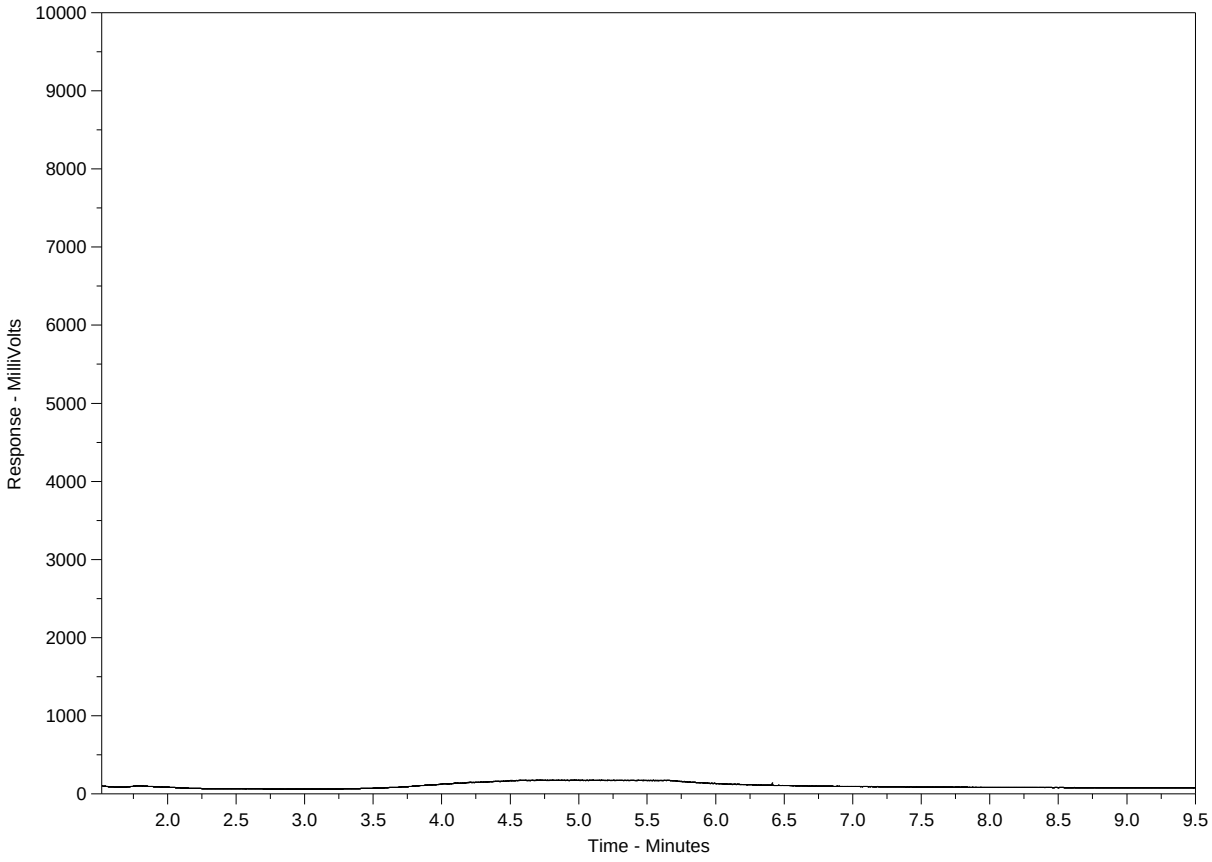
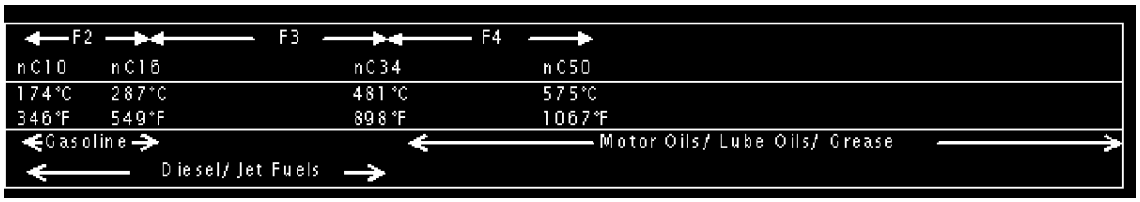
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-14
Client Sample ID: 5107140813 036





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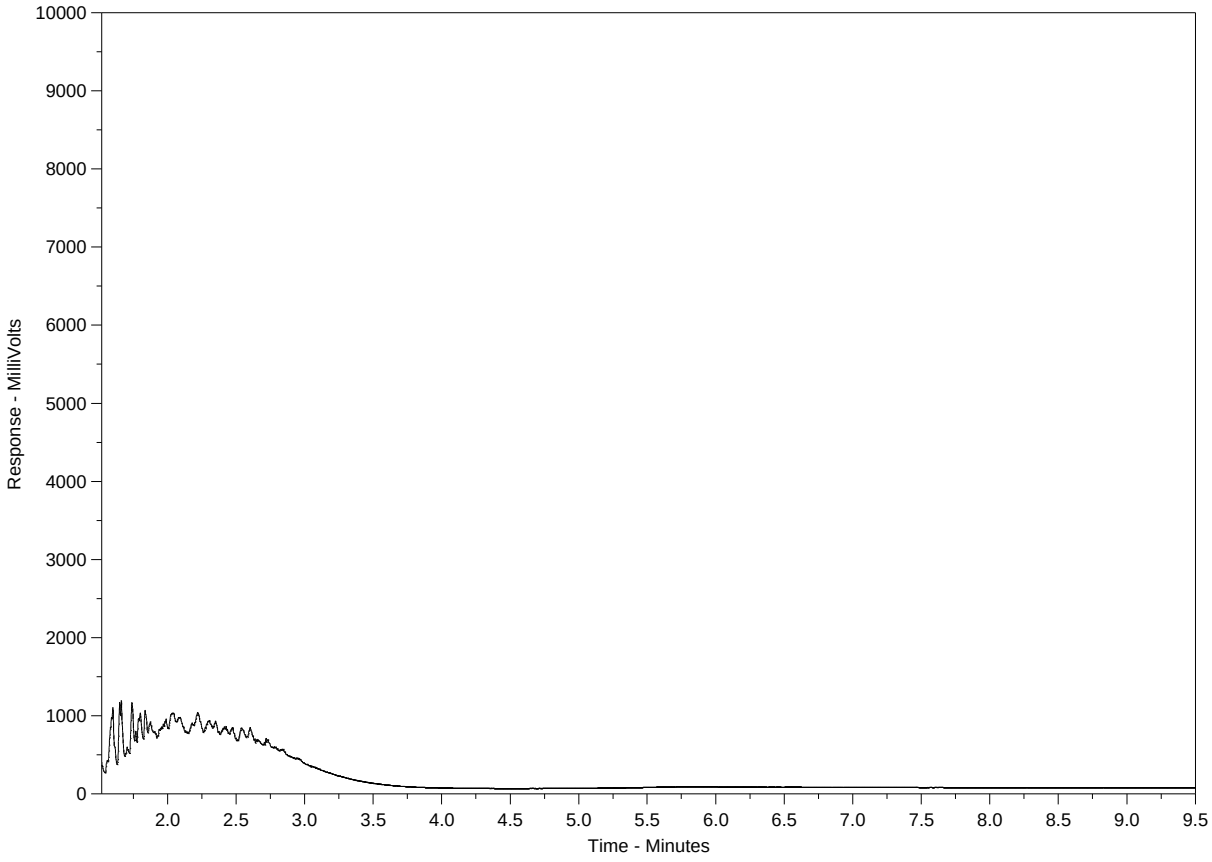
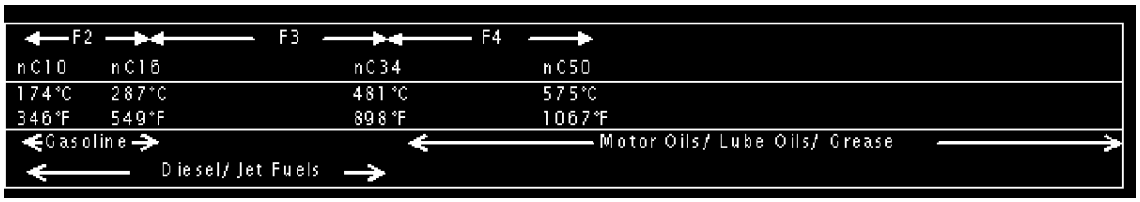
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-27
Client Sample ID: 5107150813 091





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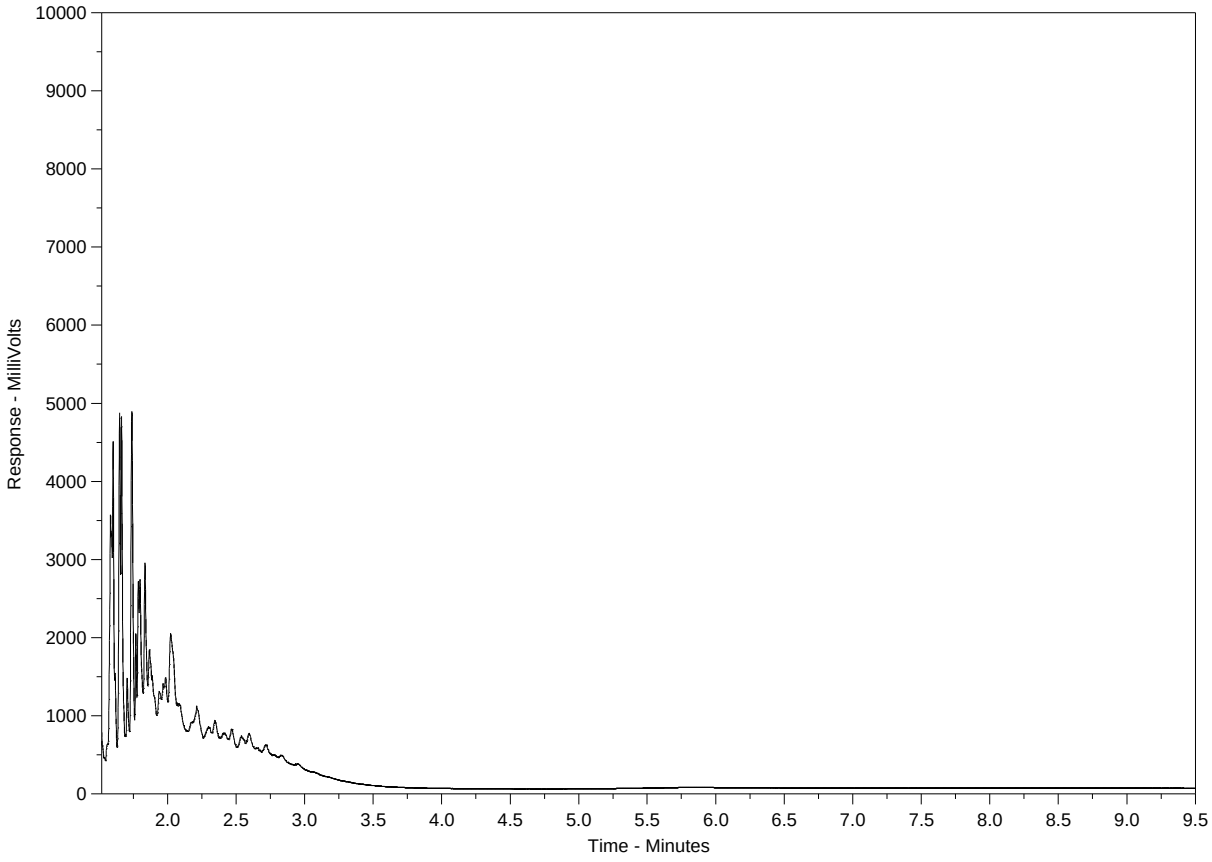
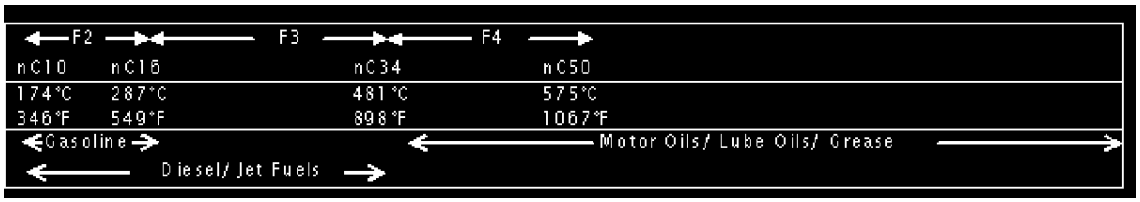
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-28
Client Sample ID: 5107150813 092





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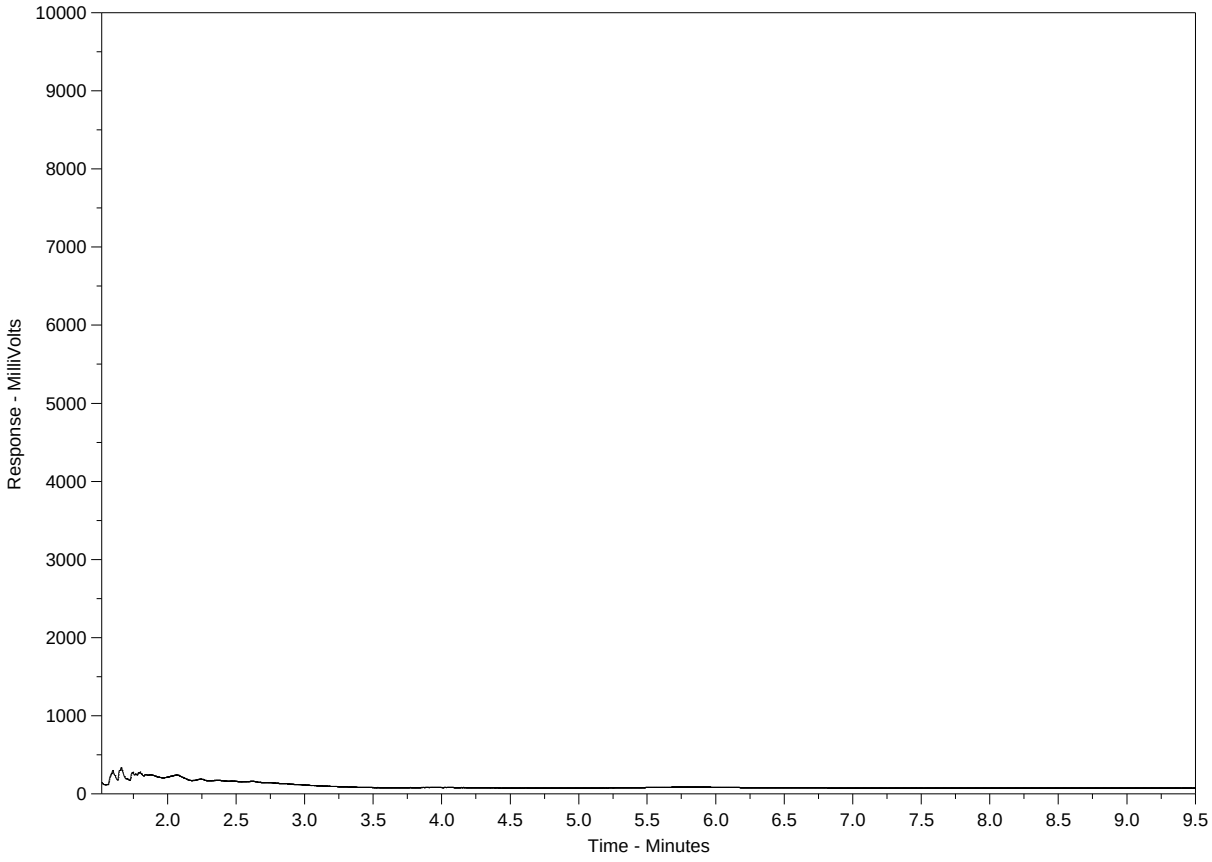
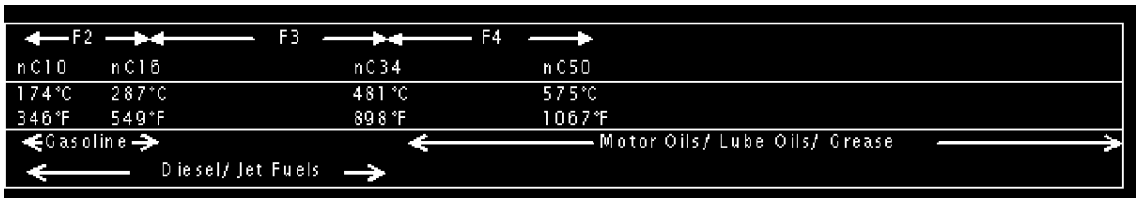
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-29
Client Sample ID: 5107150813 093





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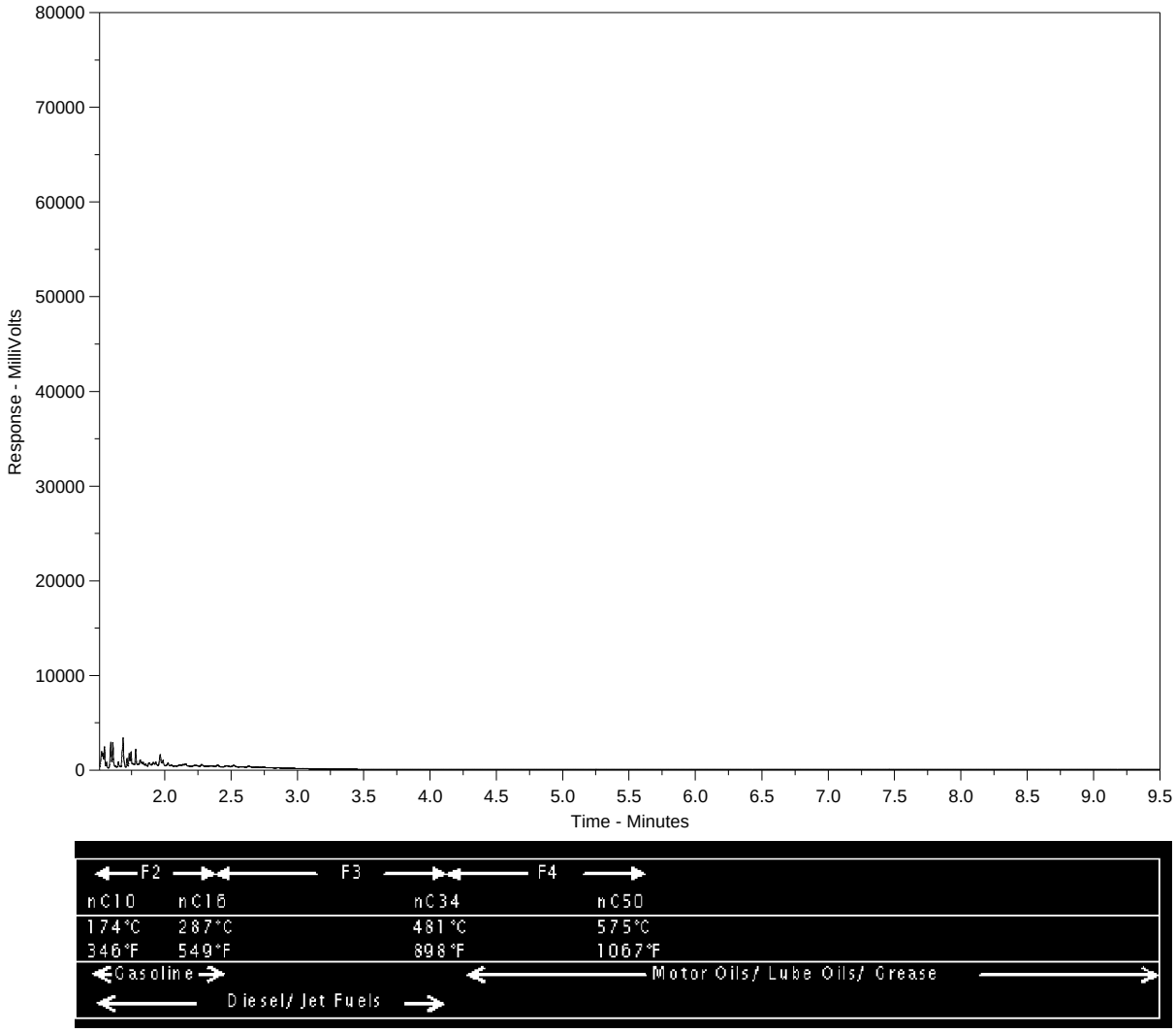
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-31
Client Sample ID: 5107150813 095



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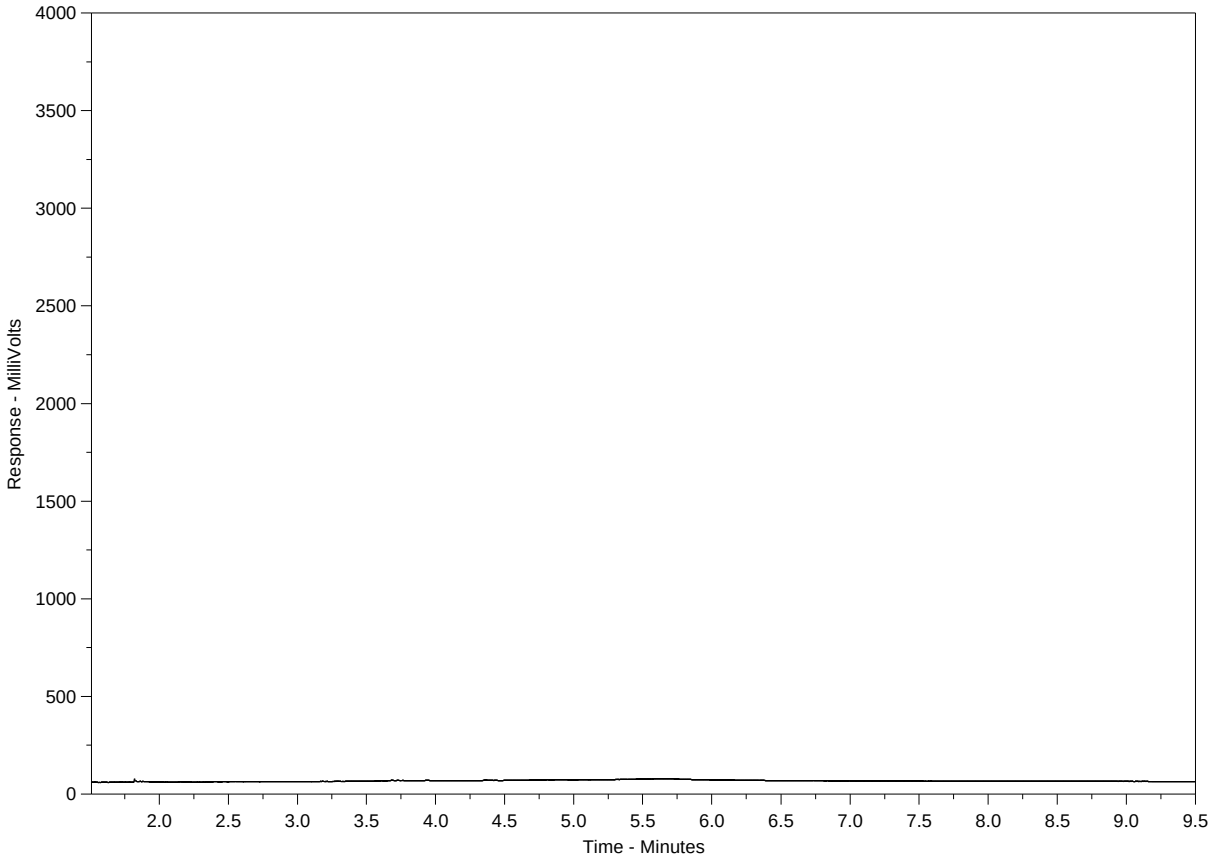
CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348902-34
Client Sample ID: 5107150813 098



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10-311039

ALS Environmental

Chain of Custody / Analytica
Canada Toll Free: 1 80
www.alsglobal.c

L1348902-COFC

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Report To		Report Format / Distribution	
Company:	Concentric	Standard:	Other (specify):
Contact:	Andrea Johnson	Select: PDF ✓	Excel ✓ Digital Fax
Address:	Unit 30 5310 Canotek Rd Ottawa ON K1J 9N5	Email 1:	andrea@concentriceng.com
Phone:	613-824-8901 Fax: 613-824-8901	Email 2:	

Invoice To	Same as Report ? (circle) Yes or No (If No, provide details)
	Copy of Invoice with Report? (circle) Yes or No
Company:	
Contact:	
Address:	
Phone:	Fax:

Client / Project Information	
Job #:	13-S107-E
PO / AFE:	
LSD:	
Quote #:	
ALS Contact:	Sampler:

Lab Work Order # (lab use only)

ability - Contact ALS to confirm TAT)
...jes - Business Days)
Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
Same Day or Weekend Emergency - Contact ALS to confirm TAT

Analysis Request

(Indicate Filtered or Preserved, F/P)

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Hold	Number of Containers
1	S107140813 026	14-08-13	1:30pm	Soil	X	4
2	025	14-08-13	1:45pm		X	4
3	062	14-08-13	2pm		X	4
4	064	14-08-13	2:15		X	4
5	066	14-08-13	2:30pm		X	4
6	022	14-08-13	2:45		X	4
7	023	14-08-13	3pm		X	4
8	024	14-08-13	3:15		X	4
9	027	14-08-13	330pm		X	4
10	028	14-08-13	3:45		X	3
11	031	14-08-13	4pm		X	3

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
			TI	15/8/2013	2:20pm	9 °C				

ALS Environmental

Chain of Custody / Analytical Re
Canada Toll Free: 1 800 66
www.alsglobal.com

L1348902-COFC

10- 311040

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Report To		Report Format / Distribution		Service Request: (Rush subject to availability - Contact ALS to confirm TAT)
Company:		Standard: Other (specify):		Regular (Standard Turnaround Times - Business Days)
Contact:	See page 1	Select: PDF Excel Digital Fax		Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:		Email 1:		Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
		Email 2:		Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone:	Fax:			Analysis Request
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	**Client / Project Information**		(Indicate Filtered or Preserved, F/P)
	Copy of Invoice with Report? (circle) Yes or No	Job #:		
Company:		PO / AFE:		
Contact:		LSD:		
Address:				
Phone:	Fax:	Quote #:		
Lab Work Order # (lab use only)		**ALS Contact:**	**Sampler:**	

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Hold	Number of Containers
12	5107140813 032	14-08-13	4:15 pm	Soil	X	3
13	033	14-08-13	4:30		X	3
14	036	14-08-13	4:45		X	4
15	037	14-08-13	5:00		X	4
16	5107150813 202	15-08-13	8:15 am		X	3
17	203	15-08-13	8:30		X	3
18	204	15-08-13	8:45		X	3
19	206	15-08-13	9:00		X	3
20	209	15-08-13	9:15		X	3
21	213	15-08-13	9:30		X	3
22	214	15-08-13	9:45		X	4
23	218	15-08-13	10:00		X	4

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by: TI	Date: 15/8/2013	Time: 8:20am	Temperature: 9 °C	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF

ALS Environmental

Chain of Cus
Canada

L1348902-COFC

10- 311041

Page 3 of 3

Report To	Report Format / Distribution	Service Request:(Rush subject to availability - Contact ALS to confirm TAT)
Company:	Standard: Other (specify):	Regular (Standard Turnaround Times - Business Days)
Contact: see page 1	Select: PDF Excel Digital Fax	Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:	Email 1:	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	Email 2:	Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone: Fax:		
Invoice To Same as Report ? (circle) Yes or No (if No, provide details)	**Client / Project Information**	**Analysis Request**
Copy of Invoice with Report? (circle) Yes or No	Job #:	(Indicate Filtered or Preserved, F/P)
Company:	PO / AFE:	
Contact:	LSD:	
Address:		
Phone: Fax:	Quote #:	
Lab Work Order # (lab use only)	**ALS Contact:** / **Sampler:**	

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Hold	Number of Containers
24	5107150813222	15-08-13	10:15am	Soil	X	4
25	5107150813227	15-08-13	10:30am		X	4
26	090		1:20pm		X	4
27	091		1:25pm		X	4
28	092		1:35pm		X	4
29	093		1:45pm		X	4
30	094		1:55pm		X	4
31	095		2:05pm		X	4
32	096		2:15pm		X	4
33	097		2:20pm		X	
34	098		2:30pm		X	
35	099		2:40pm		X	

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes ar
			TI	15/8/2013	2:20pm	9 °C				

CONCENTRIC ASSOCIATES
INTERNATIONAL INCORPORATED
ATTN: ANDREA JOHNSON
5310 Canotek
Unit 30
Ottawa ON K1J 9N5

Date Received: 16-AUG-13
Report Date: 05-SEP-13 13:37 (MT)
Version: FINAL REV. 2

Client Phone: 613-824-8900

Certificate of Analysis

Lab Work Order #: L1348992

Project P.O. #: NOT SUBMITTED
Job Reference: 13-S107-E
C of C Numbers:
Legal Site Desc:

Comments: ADDITIONAL 28-AUG-13 09:26

05-SEP-13: Metals and PAH added to sample 2 in this version of the report.

Bryan Mark
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1348992-1 5107150813 100 Sampled By: CLIENT on 15-AUG-13 @ 15:30 Matrix: Soil							
Physical Tests							
% Moisture	17		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1-BTEX	<10		10	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	114.9		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	20-AUG-13	20-AUG-13	R2676672
F3 (C16-C34)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
F4 (C34-C50)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
Chrom. to baseline at nC50	YES				20-AUG-13	20-AUG-13	R2676672
L1348992-2 5107150813 103 Sampled By: CLIENT on 15-AUG-13 @ 15:30 Matrix: Soil							
Physical Tests							
% Moisture	20		0.10	%	29-AUG-13	30-AUG-13	R2682946
Metals							
Antimony (Sb)	0.26		0.10	mg/kg	30-AUG-13	30-AUG-13	R2684332
Arsenic (As)	4.30		0.10	mg/kg	30-AUG-13	30-AUG-13	R2684332
Barium (Ba)	95.0		0.50	mg/kg	30-AUG-13	30-AUG-13	R2684332
Beryllium (Be)	0.51		0.10	mg/kg	30-AUG-13	30-AUG-13	R2684332
Cadmium (Cd)	0.239		0.020	mg/kg	30-AUG-13	30-AUG-13	R2684332
Chromium (Cr)	25.5		1.0	mg/kg	30-AUG-13	30-AUG-13	R2684332
Cobalt (Co)	8.34		0.020	mg/kg	30-AUG-13	30-AUG-13	R2684332
Copper (Cu)	19.8		1.0	mg/kg	30-AUG-13	30-AUG-13	R2684332
Lead (Pb)	8.26		0.20	mg/kg	30-AUG-13	30-AUG-13	R2684332
Mercury (Hg)-Total	<0.050		0.050	mg/kg	30-AUG-13	03-SEP-13	R2685047
Molybdenum (Mo)	1.09		0.020	mg/kg	30-AUG-13	30-AUG-13	R2684332
Nickel (Ni)	26.0		0.50	mg/kg	30-AUG-13	30-AUG-13	R2684332
Selenium (Se)	0.82		0.50	mg/kg	30-AUG-13	30-AUG-13	R2684332
Silver (Ag)	0.14		0.10	mg/kg	30-AUG-13	30-AUG-13	R2684332
Thallium (Tl)	0.21		0.10	mg/kg	30-AUG-13	30-AUG-13	R2684332
Tin (Sn)	<5.0		5.0	mg/kg	30-AUG-13	30-AUG-13	R2684332
Uranium (U)	0.880		0.020	mg/kg	30-AUG-13	30-AUG-13	R2684332
Vanadium (V)	43.0		0.50	mg/kg	30-AUG-13	30-AUG-13	R2684332
Zinc (Zn)	43		10	mg/kg	30-AUG-13	30-AUG-13	R2684332

* 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
L1348992-2 5107150813 103 Sampled By: CLIENT on 15-AUG-13 @ 15:30 Matrix: Soil							
Metals							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acenaphthylene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Acridine	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Anthracene	<0.0040		0.0040	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)anthracene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(a)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Chrysene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluoranthene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Fluorene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
1-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
2-Methyl Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Naphthalene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Phenanthrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Pyrene	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Quinoline	<0.010		0.010	mg/kg	26-AUG-13	03-SEP-13	R2687157
Surrogate: Acenaphthene d10	104.4		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Chrysene d12	93.9		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Naphthalene d8	105.1		50-130	%	26-AUG-13	03-SEP-13	R2687157
Surrogate: Phenanthrene d10	105.4		50-130	%	26-AUG-13	03-SEP-13	R2687157
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	26-AUG-13	03-SEP-13	R2687157
IACR (CCME)	<0.15		0.15	mg/kg	26-AUG-13	03-SEP-13	R2687157
L1348992-4 5107150813 107 Sampled By: CLIENT on 15-AUG-13 @ 16:30 Matrix: Soil							
Physical Tests							
% Moisture	5.3		0.10	%	19-AUG-13	19-AUG-13	R2674797
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Ethyl benzene	<0.015		0.015	mg/kg	17-AUG-13	20-AUG-13	R2677265
Toluene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
o-Xylene	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
m+p-Xylenes	<0.050		0.050	mg/kg	17-AUG-13	20-AUG-13	R2677265
Xylenes	<0.10		0.10	mg/kg	17-AUG-13	20-AUG-13	R2677265
F1 (C6-C10)	<10		10	mg/kg	17-AUG-13	20-AUG-13	R2677265

* 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
L1348992-4 5107150813 107 Sampled By: CLIENT on 15-AUG-13 @ 16:30 Matrix: Soil							
Volatile Organic Compounds							
F1-BTEX	<10		10	mg/kg		22-AUG-13	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		22-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	112.3		70-130	%	17-AUG-13	20-AUG-13	R2677265
Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	20-AUG-13	20-AUG-13	R2676672
F3 (C16-C34)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
F4 (C34-C50)	<50		50	mg/kg	20-AUG-13	20-AUG-13	R2676672
Chrom. to baseline at nC50	YES				20-AUG-13	20-AUG-13	R2676672

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

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA SW846 8260B REV 2

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	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.

F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC Dec-2000 - Pub# 1310

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.

HG-200.2-CVAF-WP	Soil	Mercury Total	EPA 7470A Rev 1,1994

A hydrochloric acid/nitric acid and potassium persulphate block digestion is employed to oxidize the organomercury to inorganic mercury. After digestion, samples are analyzed using cold vapour techniques.

MET-200.2-MS-WP	Soil	Metals	EPA 200.8/200.2 /BCMOE-S

This analysis is carried out using procedures adapted from US EPA method 200.2. Sample preparation procedure for spectrochemical determination of total recoverable elements . Soil samples are dried (<60 C) and homogenized and a representative subsample of the dry material is digested. The digested samples are analyzed by ICPMS.

The results are reported as mg/Kg dry weight or mg/Kg wet weight this is equivalent to ug/g dry weight or ug/g wet weight.

Method Limitation: This method is not a total digestion technique. It is a very strong acid digestion that is intended to dissolve those metals that maybe environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not mobile in the environment. This method has known stability issues for determining Silicon.

PAH,PANH-WP	Soil	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS

Samples are mix with sodium sulfate and extracted with acetone/dichloromethane using a combination of high frequency sonication and shake using a platform shaker. After extract concentration, samples are analyzed by GC/MS.

** 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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

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 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: L1348992 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R2677265								
WG1730024-8 DUP		**L1349147-2**						
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
Ethyl benzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	20-AUG-13
o-Xylene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
m+p-Xylenes		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	20-AUG-13
F1 (C6-C10)		<10	<10	RPD-NA	mg/kg	N/A	50	20-AUG-13
WG1730024-6 LCS								
Benzene			105.1		%		70-130	20-AUG-13
Toluene			100.6		%		70-130	20-AUG-13
Ethyl benzene			108.7		%		70-130	20-AUG-13
o-Xylene			112.7		%		70-130	20-AUG-13
m+p-Xylenes			96.0		%		70-130	20-AUG-13
WG1730024-7 LCS								
F1 (C6-C10)			87.6		%		80-120	20-AUG-13
WG1730024-5 MB								
Benzene			<0.0050		mg/kg		0.005	20-AUG-13
Toluene			<0.050		mg/kg		0.05	20-AUG-13
Ethyl benzene			<0.015		mg/kg		0.015	20-AUG-13
o-Xylene			<0.050		mg/kg		0.05	20-AUG-13
m+p-Xylenes			<0.050		mg/kg		0.05	20-AUG-13
F1 (C6-C10)			<10		mg/kg		10	20-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			103.0		%		70-130	20-AUG-13
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676672								
WG1730364-3 DUP		**L1348902-34**						
F2 (C10-C16)		<25	<25	RPD-NA	mg/kg	N/A	40	20-AUG-13
F3 (C16-C34)		<50	<50	RPD-NA	mg/kg	N/A	40	20-AUG-13
F4 (C34-C50)		<50	<50	RPD-NA	mg/kg	N/A	40	20-AUG-13
WG1730364-4 IRM		**ALS PHC2 IRM**						
F2 (C10-C16)			79.1		%		70-130	20-AUG-13
F3 (C16-C34)			79.9		%		70-130	20-AUG-13
F4 (C34-C50)			76.9		%		70-130	20-AUG-13
WG1730364-2 LCS								
F2 (C10-C16)			86.0		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R2676672								
WG1730364-2 LCS								
F3 (C16-C34)			95.9		%		80-120	20-AUG-13
F4 (C34-C50)			85.0		%		80-120	20-AUG-13
WG1730364-1 MB								
F2 (C10-C16)			<25		mg/kg		25	20-AUG-13
F3 (C16-C34)			<50		mg/kg		50	20-AUG-13
F4 (C34-C50)			<50		mg/kg		50	20-AUG-13
HG-200.2-CVAF-WP	**Soil**							
Batch R2685047								
WG1739242-2 CRM		**NRC PACS-2**						
Mercury (Hg)-Total			100.7		%		70-130	03-SEP-13
WG1739242-3 CRM		**CANMET TILL-1**						
Mercury (Hg)-Total			0.095		mg/kg		0.042-0.142	03-SEP-13
WG1739242-4 DUP		**L1352743-22**						
Mercury (Hg)-Total		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	03-SEP-13
WG1739242-5 DUP		**L1352788-16**						
Mercury (Hg)-Total		<0.050	<0.050	RPD-NA	mg/kg	N/A	40	03-SEP-13
WG1739242-1 MB								
Mercury (Hg)-Total			<0.050		mg/kg		0.05	03-SEP-13
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-10 CRM		**OGGEO08**						
Antimony (Sb)			99.6		%		70-130	30-AUG-13
Arsenic (As)			99.3		%		70-130	30-AUG-13
Barium (Ba)			102.9		%		70-130	30-AUG-13
Beryllium (Be)			125.0		%		70-130	30-AUG-13
Cadmium (Cd)			86.4		%		70-130	30-AUG-13
Chromium (Cr)			98.9		%		70-130	30-AUG-13
Cobalt (Co)			95.1		%		70-130	30-AUG-13
Copper (Cu)			99.2		%		70-130	30-AUG-13
Lead (Pb)			94.7		%		70-130	30-AUG-13
Molybdenum (Mo)			116.7		%		70-130	30-AUG-13
Nickel (Ni)			100.6		%		70-130	30-AUG-13
Selenium (Se)			89.0		%		70-130	30-AUG-13
Silver (Ag)			94.7		%		70-130	30-AUG-13
Thallium (Tl)			100.4		%		70-130	30-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-10 CRM		**OGGEO08**						
Tin (Sn)			98.5		%		70-130	30-AUG-13
Uranium (U)			93.8		%		70-130	30-AUG-13
Vanadium (V)			100.1		%		70-130	30-AUG-13
Zinc (Zn)			101.6		%		70-130	30-AUG-13
WG1737972-2 CRM		**NRC PACS-2**						
Arsenic (As)			102.2		%		70-130	30-AUG-13
Beryllium (Be)			100.7		%		70-130	30-AUG-13
Cadmium (Cd)			104.7		%		70-130	30-AUG-13
Chromium (Cr)			106.5		%		70-130	30-AUG-13
Cobalt (Co)			100.8		%		70-130	30-AUG-13
Copper (Cu)			104.0		%		70-130	30-AUG-13
Lead (Pb)			105.6		%		70-130	30-AUG-13
Molybdenum (Mo)			116.3		%		70-130	30-AUG-13
Nickel (Ni)			99.9		%		70-130	30-AUG-13
Silver (Ag)			106.6		%		70-130	30-AUG-13
Thallium (Tl)			98.8		%		70-130	30-AUG-13
Tin (Sn)			108.4		%		70-130	30-AUG-13
Uranium (U)			92.4		%		70-130	30-AUG-13
Vanadium (V)			108.7		%		70-130	30-AUG-13
Zinc (Zn)			97.2		%		70-130	30-AUG-13
WG1737972-3 CRM		**NRC MESS-3**						
Antimony (Sb)			108.0		%		70-130	30-AUG-13
Arsenic (As)			91.6		%		70-130	30-AUG-13
Barium (Ba)			110.0		%		70-130	30-AUG-13
Beryllium (Be)			76.5		%		70-130	30-AUG-13
Cadmium (Cd)			90.9		%		70-130	30-AUG-13
Chromium (Cr)			84.3		%		70-130	30-AUG-13
Cobalt (Co)			105.2		%		70-130	30-AUG-13
Copper (Cu)			108.2		%		70-130	30-AUG-13
Lead (Pb)			96.8		%		70-130	30-AUG-13
Molybdenum (Mo)			101.7		%		70-130	30-AUG-13
Nickel (Ni)			101.4		%		70-130	30-AUG-13
Selenium (Se)			114.6		%		70-130	30-AUG-13
Silver (Ag)			102.6		%		70-130	30-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-3 CRM		**NRC MESS-3**						
Tin (Sn)			78.8		%		70-130	30-AUG-13
Uranium (U)			93.2		%		70-130	30-AUG-13
Vanadium (V)			76.0		%		70-130	30-AUG-13
Zinc (Zn)			98.6		%		70-130	30-AUG-13
WG1737972-4 CRM		**OGGEO08**						
Antimony (Sb)			95.2		%		70-130	30-AUG-13
Arsenic (As)			97.3		%		70-130	30-AUG-13
Barium (Ba)			109.5		%		70-130	30-AUG-13
Beryllium (Be)			124.0		%		70-130	30-AUG-13
Cadmium (Cd)			83.3		%		70-130	30-AUG-13
Chromium (Cr)			96.3		%		70-130	30-AUG-13
Cobalt (Co)			94.0		%		70-130	30-AUG-13
Copper (Cu)			97.0		%		70-130	30-AUG-13
Lead (Pb)			92.3		%		70-130	30-AUG-13
Molybdenum (Mo)			114.1		%		70-130	30-AUG-13
Nickel (Ni)			99.7		%		70-130	30-AUG-13
Selenium (Se)			87.2		%		70-130	30-AUG-13
Silver (Ag)			91.4		%		70-130	30-AUG-13
Thallium (Tl)			96.5		%		70-130	30-AUG-13
Tin (Sn)			95.4		%		70-130	30-AUG-13
Uranium (U)			91.2		%		70-130	30-AUG-13
Vanadium (V)			96.9		%		70-130	30-AUG-13
Zinc (Zn)			99.2		%		70-130	30-AUG-13
WG1737972-8 CRM		**NRC PACS-2**						
Arsenic (As)			102.3		%		70-130	30-AUG-13
Barium (Ba)			88.6		%		70-130	30-AUG-13
Beryllium (Be)			101.8		%		70-130	30-AUG-13
Cadmium (Cd)			104.8		%		70-130	30-AUG-13
Chromium (Cr)			106.4		%		70-130	30-AUG-13
Cobalt (Co)			101.1		%		70-130	30-AUG-13
Copper (Cu)			104.3		%		70-130	30-AUG-13
Lead (Pb)			108.0		%		70-130	30-AUG-13
Molybdenum (Mo)			121.7		%		70-130	30-AUG-13
Nickel (Ni)			99.0		%		70-130	30-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-8 CRM		**NRC PACS-2**						
Silver (Ag)			103.1		%		70-130	30-AUG-13
Thallium (Tl)			97.9		%		70-130	30-AUG-13
Tin (Sn)			110.6		%		70-130	30-AUG-13
Uranium (U)			92.9		%		70-130	30-AUG-13
Vanadium (V)			107.4		%		70-130	30-AUG-13
Zinc (Zn)			97.5		%		70-130	30-AUG-13
WG1737972-9 CRM		**NRC MESS-3**						
Antimony (Sb)			107.7		%		70-130	30-AUG-13
Arsenic (As)			91.8		%		70-130	30-AUG-13
Barium (Ba)			109.4		%		70-130	30-AUG-13
Beryllium (Be)			88.4		%		70-130	30-AUG-13
Cadmium (Cd)			88.1		%		70-130	30-AUG-13
Chromium (Cr)			85.9		%		70-130	30-AUG-13
Cobalt (Co)			106.1		%		70-130	30-AUG-13
Copper (Cu)			107.6		%		70-130	30-AUG-13
Lead (Pb)			97.2		%		70-130	30-AUG-13
Molybdenum (Mo)			104.9		%		70-130	30-AUG-13
Nickel (Ni)			102.6		%		70-130	30-AUG-13
Selenium (Se)			112.4		%		70-130	30-AUG-13
Silver (Ag)			100.3		%		70-130	30-AUG-13
Tin (Sn)			74.3		%		70-130	30-AUG-13
Uranium (U)			89.8		%		70-130	30-AUG-13
Vanadium (V)			77.7		%		70-130	30-AUG-13
Zinc (Zn)			101.9		%		70-130	30-AUG-13
WG1737972-12 DUP		**WG1737972-11**						
Antimony (Sb)		0.17	0.18		mg/kg	6.4	30	30-AUG-13
Arsenic (As)		4.58	4.65		mg/kg	1.6	30	30-AUG-13
Barium (Ba)		87.6	88.0		mg/kg	0.5	40	30-AUG-13
Beryllium (Be)		0.26	0.27		mg/kg	5.9	30	30-AUG-13
Cadmium (Cd)		0.075	0.075		mg/kg	0.3	30	30-AUG-13
Chromium (Cr)		13.5	13.7		mg/kg	1.3	30	30-AUG-13
Cobalt (Co)		3.94	3.85		mg/kg	2.3	30	30-AUG-13
Copper (Cu)		5.5	5.5		mg/kg	0.1	30	30-AUG-13
Lead (Pb)		7.34	7.54		mg/kg	2.7	40	30-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-12 DUP		**WG1737972-11**						
Molybdenum (Mo)		0.938	0.986		mg/kg	5.0	40	30-AUG-13
Nickel (Ni)		10.4	9.30		mg/kg	11	30	30-AUG-13
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	30-AUG-13
Silver (Ag)		<0.10	<0.10	RPD-NA	mg/kg	N/A	40	30-AUG-13
Thallium (Tl)		0.10	<0.10	RPD-NA	mg/kg	N/A	30	30-AUG-13
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	40	30-AUG-13
Uranium (U)		0.620	0.621		mg/kg	0.3	30	30-AUG-13
Vanadium (V)		32.5	32.9		mg/kg	1.0	30	30-AUG-13
Zinc (Zn)		37	35		mg/kg	5.9	30	30-AUG-13
WG1737972-6 DUP		**WG1737972-5**						
Antimony (Sb)		<0.10	<0.10	RPD-NA	mg/kg	N/A	30	30-AUG-13
Arsenic (As)		3.03	3.02		mg/kg	0.3	30	30-AUG-13
Barium (Ba)		76.6	71.8		mg/kg	6.5	40	30-AUG-13
Beryllium (Be)		0.20	0.23		mg/kg	14	30	30-AUG-13
Cadmium (Cd)		0.034	0.035		mg/kg	0.7	30	30-AUG-13
Chromium (Cr)		9.9	9.7		mg/kg	2.1	30	30-AUG-13
Cobalt (Co)		6.51	6.49		mg/kg	0.4	30	30-AUG-13
Copper (Cu)		2.7	2.6		mg/kg	0.4	30	30-AUG-13
Lead (Pb)		5.58	5.60		mg/kg	0.4	40	30-AUG-13
Molybdenum (Mo)		0.624	0.635		mg/kg	1.9	40	30-AUG-13
Nickel (Ni)		6.63	6.58		mg/kg	0.8	30	30-AUG-13
Selenium (Se)		<0.50	<0.50	RPD-NA	mg/kg	N/A	30	30-AUG-13
Silver (Ag)		<0.10	<0.10	RPD-NA	mg/kg	N/A	40	30-AUG-13
Thallium (Tl)		<0.10	<0.10	RPD-NA	mg/kg	N/A	30	30-AUG-13
Tin (Sn)		<5.0	<5.0	RPD-NA	mg/kg	N/A	40	30-AUG-13
Uranium (U)		0.270	0.270		mg/kg	0.3	30	30-AUG-13
Vanadium (V)		20.0	19.9		mg/kg	0.6	30	30-AUG-13
Zinc (Zn)		24	26		mg/kg	5.7	30	30-AUG-13
WG1737972-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	30-AUG-13
Arsenic (As)			<0.10		mg/kg		0.1	30-AUG-13
Barium (Ba)			<0.50		mg/kg		0.5	30-AUG-13
Beryllium (Be)			<0.10		mg/kg		0.1	30-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-MS-WP	**Soil**							
Batch R2684332								
WG1737972-1 MB								
Cadmium (Cd)			<0.020		mg/kg		0.02	30-AUG-13
Chromium (Cr)			<1.0		mg/kg		1	30-AUG-13
Cobalt (Co)			<0.020		mg/kg		0.02	30-AUG-13
Copper (Cu)			<1.0		mg/kg		1	30-AUG-13
Lead (Pb)			<0.20		mg/kg		0.2	30-AUG-13
Molybdenum (Mo)			<0.020		mg/kg		0.02	30-AUG-13
Nickel (Ni)			<0.50		mg/kg		0.5	30-AUG-13
Selenium (Se)			<0.50		mg/kg		0.5	30-AUG-13
Silver (Ag)			<0.10		mg/kg		0.1	30-AUG-13
Thallium (Tl)			<0.10		mg/kg		0.1	30-AUG-13
Tin (Sn)			<5.0		mg/kg		5	30-AUG-13
Uranium (U)			<0.020		mg/kg		0.02	30-AUG-13
Vanadium (V)			<0.50		mg/kg		0.5	30-AUG-13
Zinc (Zn)			<10		mg/kg		10	30-AUG-13
WG1737972-7 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	30-AUG-13
Arsenic (As)			<0.10		mg/kg		0.1	30-AUG-13
Barium (Ba)			<0.50		mg/kg		0.5	30-AUG-13
Beryllium (Be)			<0.10		mg/kg		0.1	30-AUG-13
Cadmium (Cd)			<0.020		mg/kg		0.02	30-AUG-13
Chromium (Cr)			<1.0		mg/kg		1	30-AUG-13
Cobalt (Co)			<0.020		mg/kg		0.02	30-AUG-13
Copper (Cu)			<1.0		mg/kg		1	30-AUG-13
Lead (Pb)			<0.20		mg/kg		0.2	30-AUG-13
Molybdenum (Mo)			<0.020		mg/kg		0.02	30-AUG-13
Nickel (Ni)			<0.50		mg/kg		0.5	30-AUG-13
Selenium (Se)			<0.50		mg/kg		0.5	30-AUG-13
Silver (Ag)			<0.10		mg/kg		0.1	30-AUG-13
Thallium (Tl)			<0.10		mg/kg		0.1	30-AUG-13
Tin (Sn)			<5.0		mg/kg		5	30-AUG-13
Uranium (U)			<0.020		mg/kg		0.02	30-AUG-13
Vanadium (V)			<0.50		mg/kg		0.5	30-AUG-13
Zinc (Zn)			<10		mg/kg		10	30-AUG-13
MOISTURE-WP	**Soil**							

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WP	**Soil**							
Batch R2674797								
WG1729267-1 DUP		**L1348143-7**						
% Moisture		18	18		%	0.1	50	19-AUG-13
WG1729267-2 DUP		**L1349147-2**						
% Moisture		6.0	6.7		%	11	50	19-AUG-13
Batch R2682946								
WG1737505-7 DUP		**L1348902-25**						
% Moisture		20	19		%	2.6	50	30-AUG-13
WG1737505-8 DUP		**L1354756-5**						
% Moisture		25	18		%	35	50	30-AUG-13
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-6 DUP		**L1348902-21**						
1-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
2-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acenaphthylene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Acridine		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Anthracene		<0.0040	<0.0040	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(a)anthracene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(a)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(b&j)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(g,h,i)perylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Benzo(k)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Chrysene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Dibenzo(a,h)anthracene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Fluorene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Indeno(1,2,3-cd)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Phenanthrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
Quinoline		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	03-SEP-13
WG1739498-5 LCS								
1-Methyl Naphthalene			91.0		%		60-130	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-5 LCS								
2-Methyl Naphthalene			86.6		%		60-130	03-SEP-13
Acenaphthene			95.1		%		60-130	03-SEP-13
Acenaphthylene			94.2		%		60-130	03-SEP-13
Acridine			91.0		%		60-130	03-SEP-13
Anthracene			96.7		%		60-130	03-SEP-13
Benzo(a)anthracene			91.5		%		60-130	03-SEP-13
Benzo(a)pyrene			90.4		%		60-130	03-SEP-13
Benzo(b)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(b&j)fluoranthene			87.8		%		60-130	03-SEP-13
Benzo(g,h,i)perylene			92.4		%		60-130	03-SEP-13
Benzo(k)fluoranthene			96.6		%		60-130	03-SEP-13
Chrysene			85.0		%		60-130	03-SEP-13
Dibenzo(a,h)anthracene			88.2		%		60-130	03-SEP-13
Fluoranthene			96.6		%		60-130	03-SEP-13
Fluorene			88.4		%		60-130	03-SEP-13
Indeno(1,2,3-cd)pyrene			87.1		%		60-130	03-SEP-13
Naphthalene			86.4		%		50-130	03-SEP-13
Phenanthrene			97.8		%		60-130	03-SEP-13
Pyrene			97.4		%		60-130	03-SEP-13
Quinoline			86.4		%		60-130	03-SEP-13
WG1739498-4 MB								
1-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
2-Methyl Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Acenaphthene			<0.0050		mg/kg		0.005	03-SEP-13
Acenaphthylene			<0.0050		mg/kg		0.005	03-SEP-13
Acridine			<0.010		mg/kg		0.01	03-SEP-13
Anthracene			<0.0040		mg/kg		0.004	03-SEP-13
Benzo(a)anthracene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(a)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(b&j)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	03-SEP-13
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Chrysene			<0.010		mg/kg		0.01	03-SEP-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R2687157								
WG1739498-4 MB								
Dibenzo(a,h)anthracene			<0.0050		mg/kg		0.005	03-SEP-13
Fluoranthene			<0.010		mg/kg		0.01	03-SEP-13
Fluorene			<0.010		mg/kg		0.01	03-SEP-13
Indeno(1,2,3-cd)pyrene			<0.010		mg/kg		0.01	03-SEP-13
Naphthalene			<0.010		mg/kg		0.01	03-SEP-13
Phenanthrene			<0.010		mg/kg		0.01	03-SEP-13
Pyrene			<0.010		mg/kg		0.01	03-SEP-13
Quinoline			<0.010		mg/kg		0.01	03-SEP-13
Surrogate: Acenaphthene d10			102.5		%		50-130	03-SEP-13
Surrogate: Chrysene d12			97.6		%		50-130	03-SEP-13
Surrogate: Naphthalene d8			102.4		%		50-130	03-SEP-13
Surrogate: Phenanthrene d10			106.9		%		50-130	03-SEP-13

Quality Control Report

Workorder: L1348992 Report Date: 05-SEP-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

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.

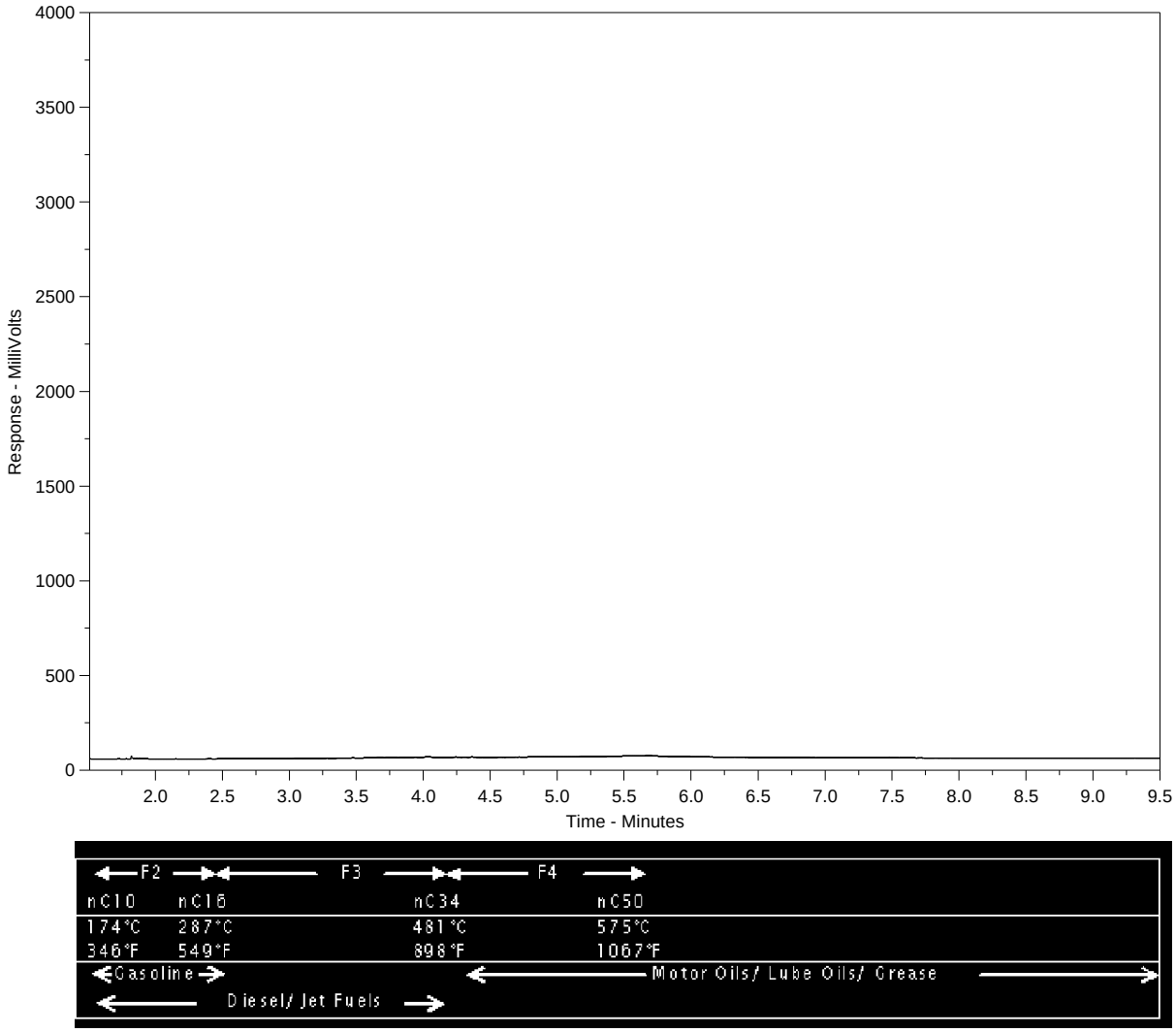
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348992-1
Client Sample ID: 5107150813 100



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

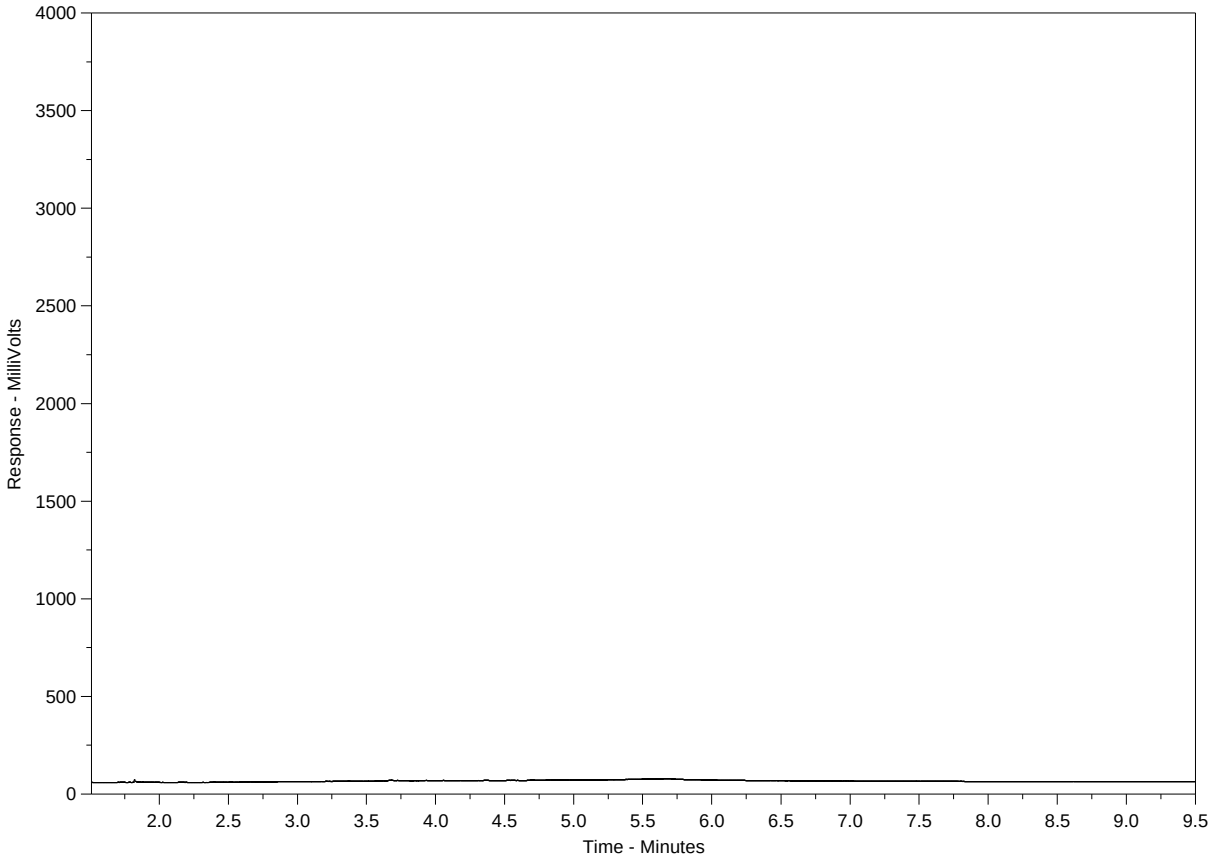
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

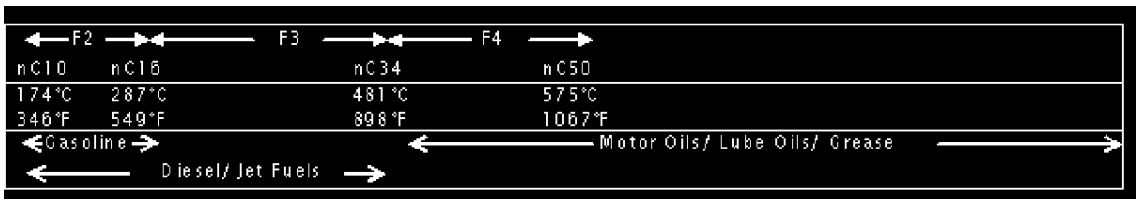
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1348992-4
Client Sample ID: 5107150813 107





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

10 - 311046

L1348992-COFC

ALS Environmental

dy / Analytical Request Form
ll Free: 1 800 668 9878
ww.alsglobal.com

L1348992

Page 1 of 1

Report To		Report Format / Distribution		Service Request: (Rush subject to availability - Contact ALS to confirm TAT)	
Company:	Concentric	Standard:	X Other (specify):	X	Regular (Standard Turnaround Times - Business Days)
Contact:	Andrea Johnson	Select: PDF	X Excel X Digital Fax		Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:	Unit 30 5310 Canotek Rd	Email 1:	andrea@concentriceng.com		Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	Ottawa ON K1J 9N5	Email 2:			Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone:	613-824-8900 Fax: 613-824-8901				
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	Client / Project Information		Analysis Request	
	Copy of Invoice with Report? (circle) Yes or No	Job #:	13-5107-E	(Indicate Filtered or Preserved, F/P)	
Company:		PO / AFE:			
Contact:		LSD:			
Address:					
Phone:	Fax:	Quote #:	Q40527		
Lab Work Order # (lab use only)		ALS Contact:	Sampler:		

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	HOLD	Number of Containers
1	5107150813100	15-08-15	3:30pm	soil	X	4
	103		↓		X	4
	104		4:00pm		X	4
	107		4:30pm		X	4
	109		↓		X	4
	111		5:00pm		X	4

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
Andrea Johnson	AUG 16 13	9am	JJ	16-8-13	9:25	°C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

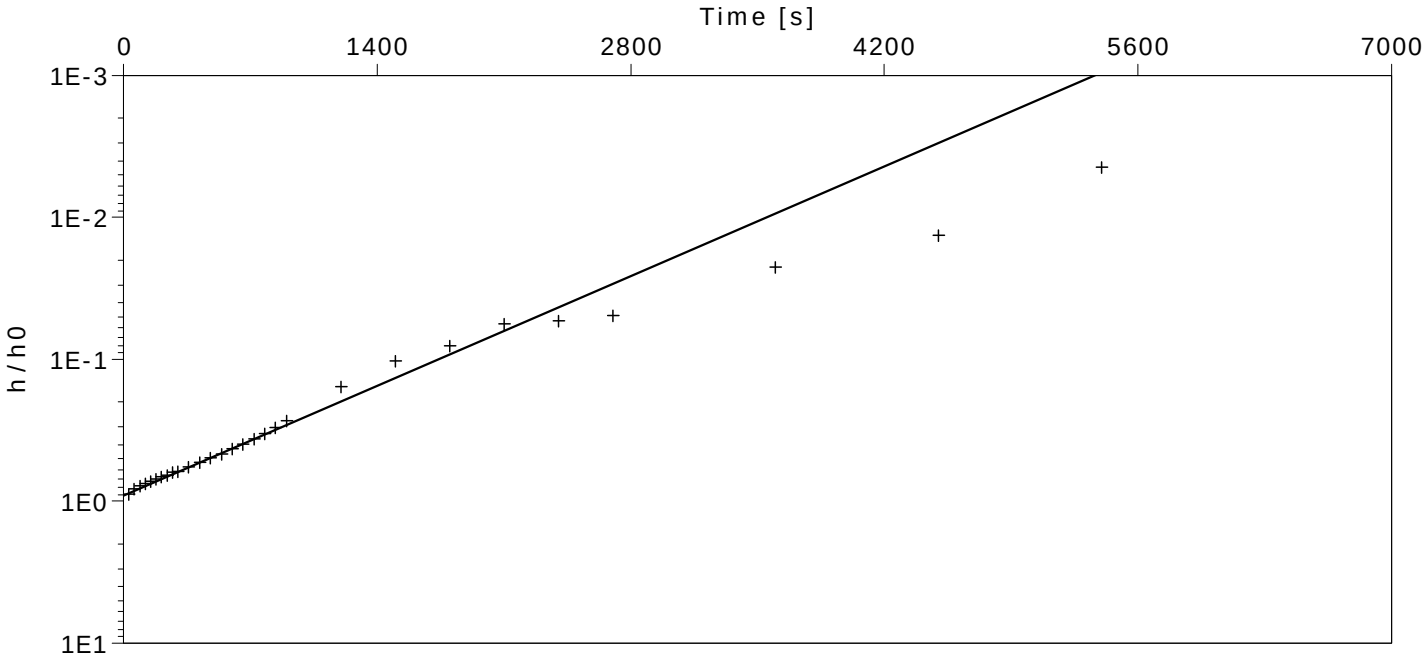
WHITE - LABORATORY COPY • YELLOW - CLIENT COPY

GENF 18.01 Front

APPENDIX C
Hydraulic Conductivity Analysis Results

Concentric Associates International Inc. **5310 Canotek Road, Unit 30** **Ottawa, ON K1J 9N5**	**Slug Test Analysis Report**	
	Project: Phase II ESA	
	Number: 13-5107-E	
	Client: City of Winnipeg	

Location: 1201/1215 Archibald Street	Slug Test: 13MW2	Test Well: 13MW2
Test Conducted by: AJ		Test Date: 17/08/2013
Analysis Performed by: JK	13MW02	Analysis Date: 10/09/2013
Aquifer Thickness: 5.00 m		

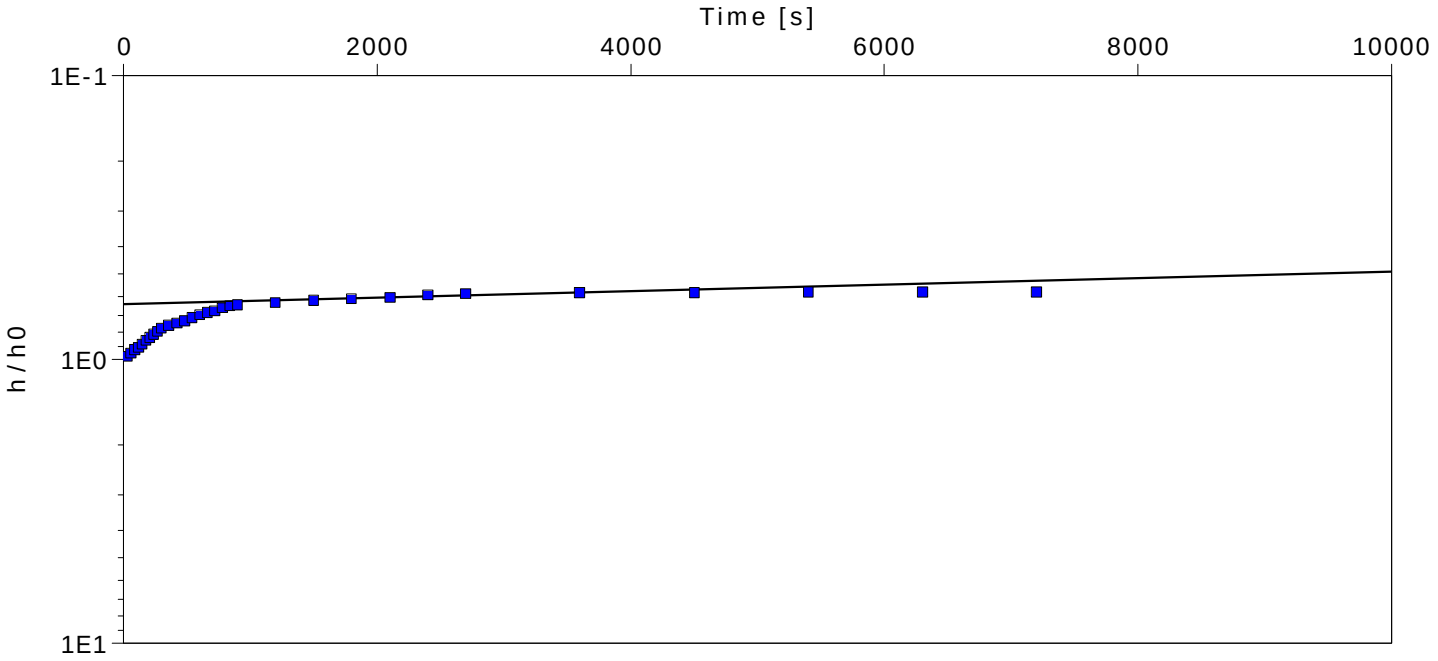


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
13MW2	1.06×10^{-6}	

Concentric Associates International Inc. **5310 Canotek Road, Unit 30** **Ottawa, ON K1J 9N5**	**Slug Test Analysis Report**
	Project: Phase II ESA
	Number: 13-5107-E
	Client: City of Winnipeg

Location: 1201/1215 Archibald Street	Slug Test: 13MW5	Test Well: 13MW5
Test Conducted by: AJ		Test Date: 18/08/2013
Analysis Performed by: JK	13MW5	Analysis Date: 10/09/2013
Aquifer Thickness: 5.00 m		

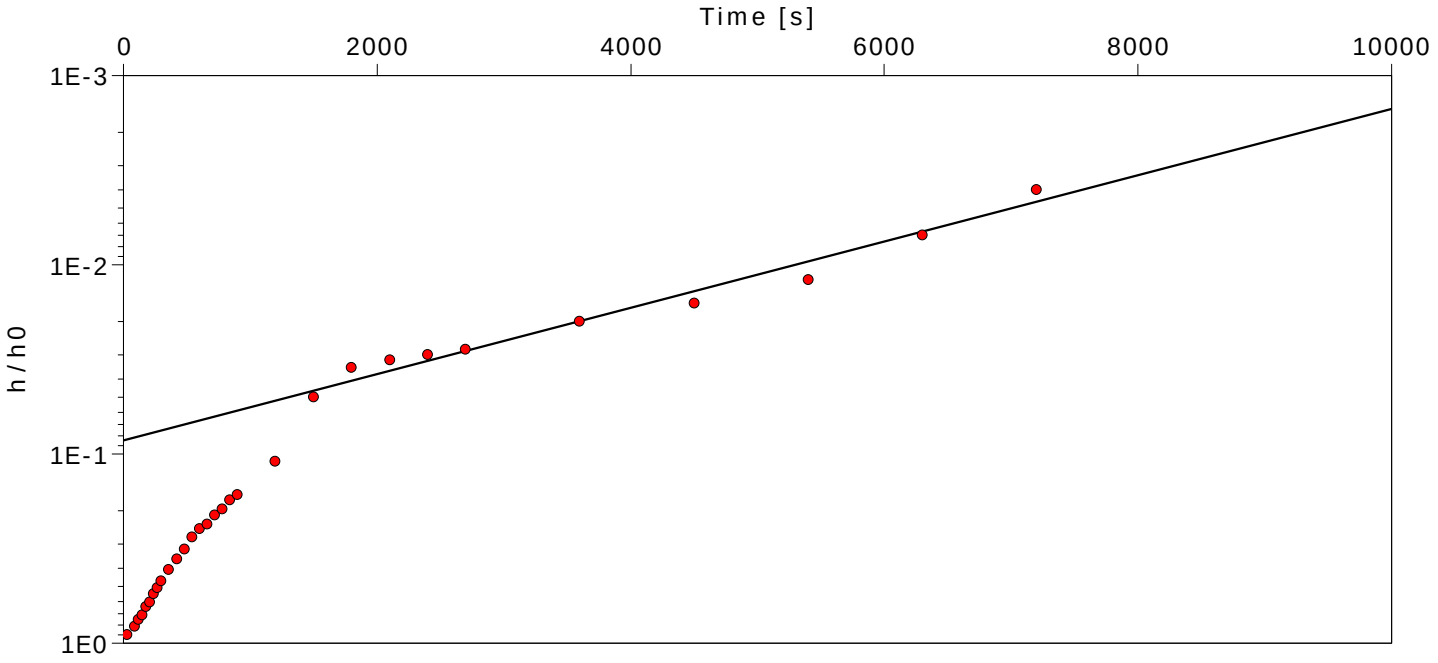


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
13MW5	2.42×10^{-8}	

Concentric Associates International Inc. 5310 Canotek Road, Unit 30 Ottawa, ON K1J 9N5	**Slug Test Analysis Report**
	Project: Phase II ESA
	Number: 13-5107-E
	Client: City of Winnipeg

Location: 1201/1215 Archibald Street	Slug Test: 13MW9	Test Well: 13MW9
Test Conducted by: AJ		Test Date: 18/08/2013
Analysis Performed by: JK	13MW9	Analysis Date: 10/09/2013
Aquifer Thickness: 5.00 m		

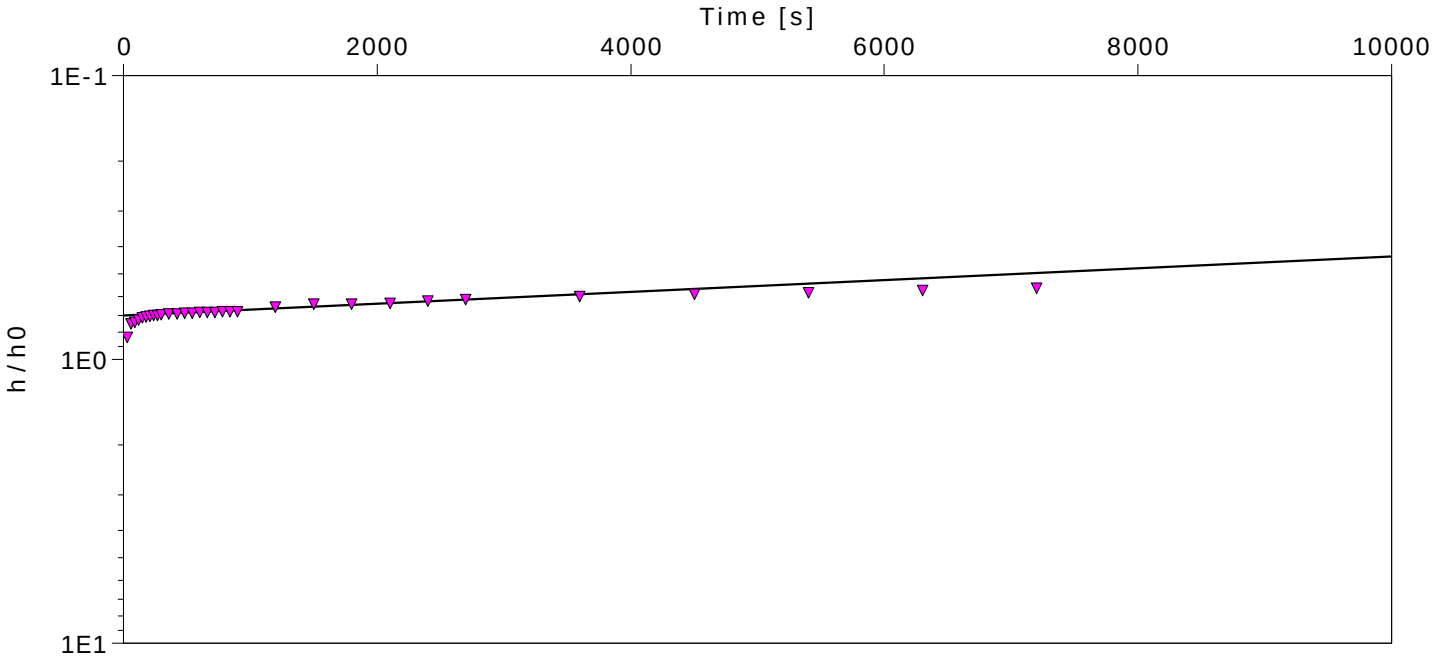


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
13MW9	3.44×10^{-7}	

Concentric Associates International Inc. 5310 Canotek Road, Unit 30 Ottawa, ON K1J 9N5	**Slug Test Analysis Report**
	Project: Phase II ESA
	Number: 13-5107-E
	Client: City of Winnipeg

Location: 1201/1215 Archibald Street	Slug Test: 13MW10	Test Well: 13MW10
Test Conducted by: AJ		Test Date: 17/08/2013
Analysis Performed by: JK	13MW10	Analysis Date: 10/09/2013
Aquifer Thickness: 5.00 m		

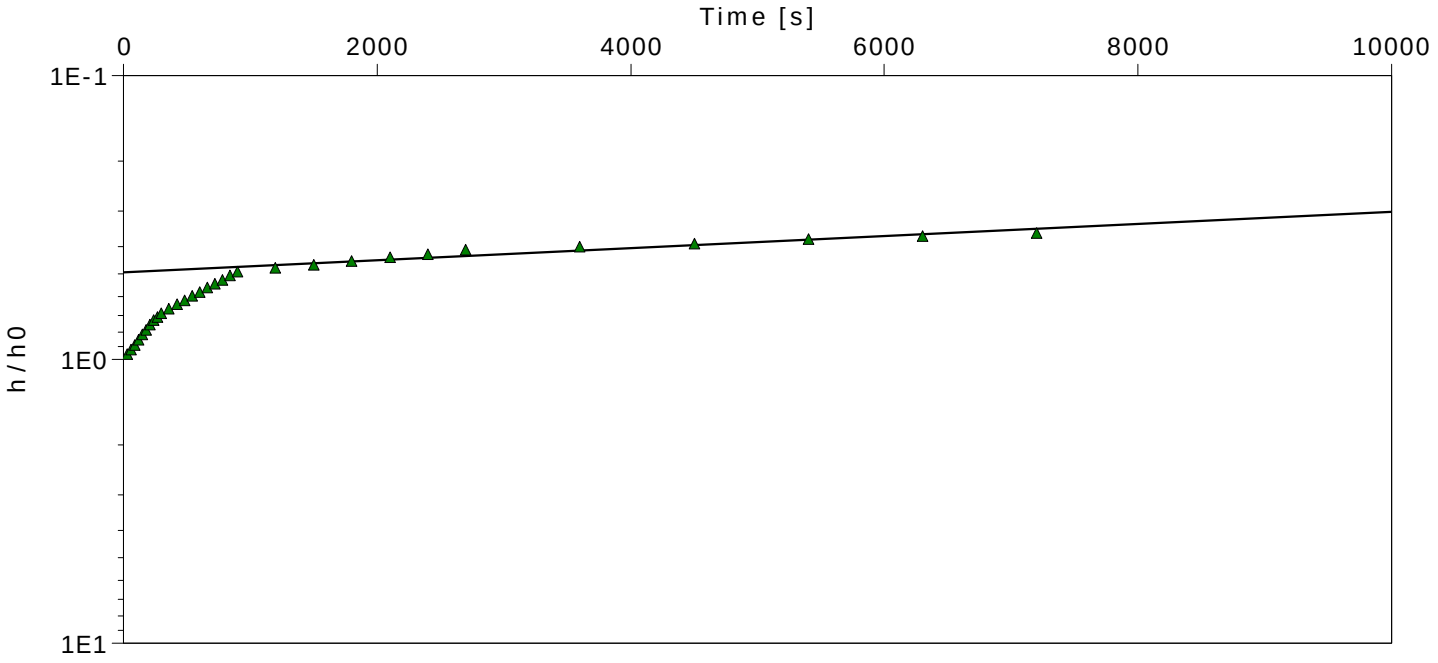


Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
13MW10	4.50×10^{-8}	

Concentric Associates International Inc. 5310 Canotek Road, Unit 30 Ottawa, ON K1J 9N5	**Slug Test Analysis Report**
	Project: Phase II ESA
	Number: 13-5107-E
	Client: City of Winnipeg

Location: 1201/1215 Archibald Street	Slug Test: 13MW14	Test Well: 13MW14
Test Conducted by: AJ		Test Date: 18/08/2013
Analysis Performed by: JK	13MW14	Analysis Date: 10/09/2013
Aquifer Thickness: 5.00 m		



Calculation using Bouwer & Rice

Observation Well	Hydraulic Conductivity [m/s]	
13MW14	4.52×10^{-8}	

APPENDIX D
Groundwater Laboratory Analytical Reports

CONCENTRIC ASSOCIATES
INTERNATIONAL INCORPORATED
ATTN: ANDREA JOHNSON
5310 Canotek
Unit 30
Ottawa ON K1J 9N5

Date Received: 19-AUG-13
Report Date: 30-AUG-13 15:50 (MT)
Version: FINAL

Client Phone: 613-824-8900

Certificate of Analysis

Lab Work Order #: L1349512

Project P.O. #: NOT SUBMITTED
Job Reference: 13-5107-E
C of C Numbers:
Legal Site Desc:

Bryan Mark
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-1 S107190813301 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00025		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00090		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.0969		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.124		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000084		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	146	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00352		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00430		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	<0.000090		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.173		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	107	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	0.140		0.00030	mg/L	20-AUG-13	20-AUG-13	R2676267
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00334		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0054		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	7.01		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00196		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	9.84		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	102	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	0.895		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00026		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.00234		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0172		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00113		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0035		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00041		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595

* 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
L1349512-1 S107190813301 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292

* 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
L1349512-1 S107190813301 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	100.1		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	100.7		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	74.9		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	84.6		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	92.0		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	82.9		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	75.5		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	89.2		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
Trihalomethanes							

* 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
L1349512-1 S107190813301 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-2 S107190813302 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		29-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		29-AUG-13	
F3-PAH	<0.25		0.25	mg/L		29-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		29-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	92.9		70-130	%		23-AUG-13	R2678292
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	82.1		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Acenaphthylene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Acridine	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Anthracene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774
Benzo(a)anthracene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774
Benzo(a)pyrene	<0.000050	DLM	0.000050	mg/L	22-AUG-13	27-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Benzo(k)fluoranthene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774
Chrysene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.000050	DLM	0.000050	mg/L	22-AUG-13	27-AUG-13	R2679774
Fluoranthene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Fluorene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774
1-Methyl Naphthalene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
2-Methyl Naphthalene	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Naphthalene	<0.00050	DLM	0.00050	mg/L	22-AUG-13	27-AUG-13	R2679774
Phenanthrene	<0.00050	DLM	0.00050	mg/L	22-AUG-13	27-AUG-13	R2679774
Pyrene	<0.00010	DLM	0.00010	mg/L	22-AUG-13	27-AUG-13	R2679774

* 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
L1349512-2 S107190813302 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Quinoline	<0.00020	DLM	0.00020	mg/L	22-AUG-13	27-AUG-13	R2679774
Surrogate: Acenaphthene d10	83.7		40-130	%	22-AUG-13	27-AUG-13	R2679774
Surrogate: Acridine d9	81.5		40-130	%	22-AUG-13	27-AUG-13	R2679774
Surrogate: Chrysene d12	73.8		40-130	%	22-AUG-13	27-AUG-13	R2679774
Surrogate: Naphthalene d8	79.3		40-130	%	22-AUG-13	27-AUG-13	R2679774
Surrogate: Phenanthrene d10	84.5		40-130	%	22-AUG-13	27-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000072		0.000072	mg/L	22-AUG-13	27-AUG-13	R2679774
L1349512-3 S107190813303 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00039		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.0195		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.0838		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.120		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000054		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	202	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00269		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00445		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	<0.000090		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.277		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	109	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	0.786	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00499		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0102		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	8.77		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00217		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	16.0		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	108	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	1.13	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-3 S107190813303 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00024		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.00877		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0312		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00115		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0145		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00088		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	0.023		0.020	mg/L		28-AUG-13	R2682595
Benzene	0.284	DLA	0.0025	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.0050	DLM	0.0050	mg/L		28-AUG-13	R2682595
Ethyl benzene	0.755	DLA	0.0025	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	0.00178		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-3 S107190813303 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	0.0526		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	1.70	DLA	0.010	mg/L		23-AUG-13	R2678292
m+p-Xylenes	3.55	DLA	0.010	mg/L		23-AUG-13	R2678292
Xylenes	5.25	DLA	0.014	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	12.9	DLA	2.0	mg/L		23-AUG-13	R2678292
F1-BTEX	5.9		1.9	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	16.1		2.0	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	104.6		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	100.3		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	3.15		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	115.6		65-135	%	20-AUG-13	20-AUG-13	R2677248
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-4 S107190813304 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	0.0503		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00021		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00422		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.194		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.094		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000135		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	283	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00332		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00460		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-4 S107190813304 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Lead (Pb)-Total	0.000167		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.315		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	263	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	1.50	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00583		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0109		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	0.19		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	7.78		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00442		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	0.0017		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	12.7		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	238	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	1.65	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.0115		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	0.00039		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0237		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00483		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0432		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00214		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

* 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
L1349512-4 S107190813304 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.2		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	100.6		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	74.3		65-135	%	20-AUG-13	20-AUG-13	R2677248

* 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
L1349512-4 S107190813304 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	80.9		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	88.6		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	75.1		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	72.4		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	85.2		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-5 S107190813305 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595

* 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
L1349512-5 S107190813305 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	104.6		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	101.6		70-130	%		28-AUG-13	R2682595

* 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
L1349512-5 S107190813305 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	76.5		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	83.3		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	93.3		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	78.3		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	73.0		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	88.0		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
Polychlorinated Biphenyls							
Aroclor 1016	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1221	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1232	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1242	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1248	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1254	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1260	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-5 S107190813305 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polychlorinated Biphenyls							
Aroclor 1262	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1268	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Surrogate: Decachlorobiphenyl	85.0		50-150	%	27-AUG-13	29-AUG-13	R2682453
Total Polychlorinated Biphenyls	<0.00015		0.00015	mg/L		29-AUG-13	
L1349512-6 S107190813306 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		28-AUG-13	R2681362
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		28-AUG-13	R2681362
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

* 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
L1349512-6 S107190813306 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		28-AUG-13	R2681362
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		28-AUG-13	R2681362
m+p-Xylenes	<0.00050		0.00050	mg/L		28-AUG-13	R2681362
Xylenes	<0.0015		0.0015	mg/L		28-AUG-13	R2681362
F1 (C6-C10)	<0.10		0.10	mg/L		28-AUG-13	R2681362
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	83.0		70-130	%		28-AUG-13	R2681362
Surrogate: 1,4-Difluorobenzene (SS)	101.2		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	76.5		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774

* 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
L1349512-6 S107190813306 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	86.7		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	98.0		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	83.1		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	80.1		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	92.0		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
Polychlorinated Biphenyls							
Aroclor 1016	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1221	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1232	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1242	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1248	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1254	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1260	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1262	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1268	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Surrogate: Decachlorobiphenyl	112.0		50-150	%	27-AUG-13	29-AUG-13	R2682453
Total Polychlorinated Biphenyls	<0.00015		0.00015	mg/L		29-AUG-13	
L1349512-7 S107190813307 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00078		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.124		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.097		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000071		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	164	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00270		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00278		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	<0.000090		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.122		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-7 S107190813307 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Magnesium (Mg)-Total	100	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	0.127		0.00030	mg/L	20-AUG-13	20-AUG-13	R2676267
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00273		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0049		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	6.58		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00147		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	8.89		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	99.0	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	0.794	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00083		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.00244		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0123		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00062		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	<0.0020		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	<0.00040		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		29-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		29-AUG-13	
F3-PAH	<0.25		0.25	mg/L		29-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		29-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	99.8		70-130	%		23-AUG-13	R2678292
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	78.4		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-7 S107190813307 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	85.2		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	98.4		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	84.9		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	74.3		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	92.1		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
L1349512-8 S107190813308 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	0.975		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00022		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00431		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.192		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.099		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000149		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	283	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	0.00013		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	0.0020		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00349		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267

* 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
L1349512-8 S107190813308 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Copper (Cu)-Total	0.00561		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	1.13		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	0.00119		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.313		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	249	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	1.43	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00574		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0120		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	0.22		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	7.60		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00621		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	0.0020		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	13.5		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	239	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	1.58	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	0.00054		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00034		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.0520		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	0.00038		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0226		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00679		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0388		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00243		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

* 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
L1349512-8 S107190813308 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	108.8		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	100.8		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	79.2		65-135	%	20-AUG-13	20-AUG-13	R2677248

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-8 S107190813308 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-9 S107190813309 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00940		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.346		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.099		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000147		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	411	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00838		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00369		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	<0.000090		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.299		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	303	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	1.16	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00302		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0231		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	4.83		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00347		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	11.8		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	1540	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	2.42	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00050		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.00881		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0111		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-9 S107190813309 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Zinc (Zn)-Total	0.0023		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00136		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-9 S107190813309 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	87.6		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	100.7		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	75.9		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)pyrene	0.0000113		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(b&j)fluoranthene	0.000023		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Dibenzo(a,h)anthracene	0.0000053		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Pyrene	0.000015		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acenaphthene d10	83.1		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acridine d9	94.0		40-130	%	22-AUG-13	24-AUG-13	R2679774

* 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
L1349512-9 S107190813309 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Surrogate: Chrysene d12	72.6		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Naphthalene d8	70.6		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Phenanthrene d10	85.6		40-130	%	22-AUG-13	24-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	24-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-10 S107190813310 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	0.0157		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00374		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.195		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.095		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000124		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	295	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00337		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00398		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	0.000099		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.325		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	267	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	1.59	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00564		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0109		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	0.16		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	7.21		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00431		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	0.0018		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	11.8		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	248	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	1.71	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267

* 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
L1349512-10 S107190813310 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Tin (Sn)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.0100		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	0.00040		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0237		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00411		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0110		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00217		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1349512-10 S107190813310 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	96.1		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	101.6		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	76.1		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774

* 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
L1349512-10 S107190813310 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	23-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	23-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acenaphthene d10	77.5		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Acridine d9	86.8		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Chrysene d12	72.2		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Naphthalene d8	71.6		40-130	%	22-AUG-13	23-AUG-13	R2679774
Surrogate: Phenanthrene d10	82.7		40-130	%	22-AUG-13	23-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	23-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
L1349512-11 S107190813311 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	0.0125		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00021		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.00125		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.0457		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.052		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000043		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	75.2		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00042		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00352		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	0.000091		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.120		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	65.1		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Manganese (Mn)-Total	0.0862		0.00030	mg/L	20-AUG-13	20-AUG-13	R2676267
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00360		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0044		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	3.84		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00165		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	4.16		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267

* 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
L1349512-11 S107190813311 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Sodium (Na)-Total	47.8	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	0.490		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.00388		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	0.00014		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0229		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00423		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0677		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00060		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292
F1-BTEX	<0.10		0.10	mg/L		23-AUG-13	
Total Hydrocarbons (C6-C50)	1.22		0.44	mg/L		23-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	106.7		70-130	%		23-AUG-13	R2678292
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	0.57		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	0.65		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	76.9		65-135	%	20-AUG-13	20-AUG-13	R2677248
L1349512-12 S107190813312 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Aluminum (Al)-Total	0.0071		0.0050	mg/L	20-AUG-13	20-AUG-13	R2676267
Antimony (Sb)-Total	0.00033		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Arsenic (As)-Total	0.0168		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Barium (Ba)-Total	0.0870		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Beryllium (Be)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Bismuth (Bi)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Boron (B)-Total	0.152		0.010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cadmium (Cd)-Total	0.000062		0.000010	mg/L	20-AUG-13	20-AUG-13	R2676267
Calcium (Ca)-Total	234	DLA	10	mg/L	20-AUG-13	23-AUG-13	R2677012
Cesium (Cs)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267

* 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
L1349512-12 S107190813312 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Total Metals							
Chromium (Cr)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Cobalt (Co)-Total	0.00302		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Copper (Cu)-Total	0.00461		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Iron (Fe)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Lead (Pb)-Total	<0.000090		0.000090	mg/L	20-AUG-13	20-AUG-13	R2676267
Lithium (Li)-Total	0.352		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Magnesium (Mg)-Total	118	DLA	1.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Manganese (Mn)-Total	0.952	DLA	0.030	mg/L	20-AUG-13	23-AUG-13	R2677012
Mercury (Hg)-Total	<0.000020		0.000020	mg/L	22-AUG-13	22-AUG-13	R2678478
Molybdenum (Mo)-Total	0.00491		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Nickel (Ni)-Total	0.0120		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Phosphorus (P)-Total	<0.10		0.10	mg/L	20-AUG-13	20-AUG-13	R2676267
Potassium (K)-Total	9.01		0.020	mg/L	20-AUG-13	20-AUG-13	R2676267
Rubidium (Rb)-Total	0.00230		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Selenium (Se)-Total	<0.0010		0.0010	mg/L	20-AUG-13	20-AUG-13	R2676267
Silicon (Si)-Total	15.8		0.050	mg/L	20-AUG-13	20-AUG-13	R2676267
Silver (Ag)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Sodium (Na)-Total	127	DLA	3.0	mg/L	20-AUG-13	23-AUG-13	R2677012
Strontium (Sr)-Total	1.32	DLA	0.010	mg/L	20-AUG-13	23-AUG-13	R2677012
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Thallium (Tl)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Thorium (Th)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Tin (Sn)-Total	0.00025		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Titanium (Ti)-Total	0.0123		0.00050	mg/L	20-AUG-13	20-AUG-13	R2676267
Tungsten (W)-Total	<0.00010		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Uranium (U)-Total	0.0392		0.00010	mg/L	20-AUG-13	20-AUG-13	R2676267
Vanadium (V)-Total	0.00133		0.00020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zinc (Zn)-Total	0.0153		0.0020	mg/L	20-AUG-13	20-AUG-13	R2676267
Zirconium (Zr)-Total	0.00094		0.00040	mg/L	20-AUG-13	20-AUG-13	R2676267
Volatile Organic Compounds							
Benzene	0.282	DLA	0.0025	mg/L		23-AUG-13	R2678292
Ethyl benzene	0.775	DLA	0.0025	mg/L		23-AUG-13	R2678292
Toluene	0.0654		0.0010	mg/L		23-AUG-13	R2678292
o-Xylene	1.93	DLA	0.010	mg/L		23-AUG-13	R2678292
m+p-Xylenes	3.95	DLA	0.010	mg/L		23-AUG-13	R2678292
Xylenes	5.88	DLA	0.014	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	14.6	DLA	2.0	mg/L		23-AUG-13	R2678292
F1-BTEX	7.6		2.2	mg/L		26-AUG-13	
Total Hydrocarbons (C6-C50)	17.9		2.0	mg/L		26-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	110.9		70-130	%		23-AUG-13	R2678292
Hydrocarbons							

* 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
L1349512-12 S107190813312 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Hydrocarbons							
F2 (C10-C16)	3.24		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	118.1		65-135	%	20-AUG-13	20-AUG-13	R2677248
L1349512-13 S107190813313 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acridine	0.000026		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acenaphthene d10	90.2		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acridine d9	101.3		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Chrysene d12	83.1		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Naphthalene d8	81.0		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Phenanthrene d10	95.3		40-130	%	22-AUG-13	24-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	24-AUG-13	R2679774
L1349512-14 S107190813314 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Acetone	<0.020		0.020	mg/L		28-AUG-13	R2682595
Benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Bromodichloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Bromoform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595

* 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
L1349512-14 S107190813314 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
Bromomethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Carbon disulfide	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Carbon Tetrachloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dibromochloromethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloroethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Chloroform	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Chloromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,2-Dibromoethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
1,1-dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,2-Dichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1-dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,2-Dichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Dichloromethane	<0.0010	DLM	0.0010	mg/L		28-AUG-13	R2682595
1,2-Dichloropropane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
cis-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
trans-1,3-Dichloropropene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Ethyl benzene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		28-AUG-13	R2682595
MEK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MIBK	<0.020		0.020	mg/L		28-AUG-13	R2682595
MTBE	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Styrene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Tetrachloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Toluene	<0.0010		0.0010	mg/L		23-AUG-13	R2678292
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichloroethene	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
Trichlorofluoromethane	<0.0010		0.0010	mg/L		28-AUG-13	R2682595
Vinyl Chloride	<0.00050		0.00050	mg/L		28-AUG-13	R2682595
o-Xylene	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
m+p-Xylenes	<0.00050		0.00050	mg/L		23-AUG-13	R2678292
Xylenes	<0.0015		0.0015	mg/L		23-AUG-13	R2678292
F1 (C6-C10)	<0.10		0.10	mg/L		23-AUG-13	R2678292

* 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
L1349512-14 S107190813314 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Volatile Organic Compounds							
F1-BTEX	<0.10		0.10	mg/L		30-AUG-13	
F2-Naphth	<0.25		0.25	mg/L		30-AUG-13	
F3-PAH	<0.25		0.25	mg/L		30-AUG-13	
Total Hydrocarbons (C6-C50)	<0.44		0.44	mg/L		30-AUG-13	
Surrogate: 4-Bromofluorobenzene (SS)	86.2		70-130	%		23-AUG-13	R2678292
Surrogate: 1,4-Difluorobenzene (SS)	101.8		70-130	%		28-AUG-13	R2682595
Hydrocarbons							
F2 (C10-C16)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F3 (C16-C34)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
F4 (C34-C50)	<0.25		0.25	mg/L	20-AUG-13	20-AUG-13	R2677248
Surrogate: 2-Bromobenzotrifluoride	79.0		65-135	%	20-AUG-13	20-AUG-13	R2677248
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acenaphthylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Acridine	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)anthracene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(a)pyrene	<0.0000050		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(b&j)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(g,h,i)perylene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Benzo(k)fluoranthene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Chrysene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Dibenzo(a,h)anthracene	<0.0000050		0.0000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluoranthene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Fluorene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Indeno(1,2,3-cd)pyrene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
1-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
2-Methyl Naphthalene	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Naphthalene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Phenanthrene	<0.000050		0.000050	mg/L	22-AUG-13	24-AUG-13	R2679774
Pyrene	<0.000010		0.000010	mg/L	22-AUG-13	24-AUG-13	R2679774
Quinoline	<0.000020		0.000020	mg/L	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acenaphthene d10	83.1		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Acridine d9	99.6		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Chrysene d12	89.7		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Naphthalene d8	75.1		40-130	%	22-AUG-13	24-AUG-13	R2679774
Surrogate: Phenanthrene d10	93.0		40-130	%	22-AUG-13	24-AUG-13	R2679774
B(a)P Total Potency Equivalent	<0.000030		0.000030	mg/L	22-AUG-13	24-AUG-13	R2679774
Trihalomethanes							
Total THMs	<0.0010		0.0010	mg/L		30-AUG-13	
Polychlorinated Biphenyls							
Aroclor 1016	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453

* 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
L1349512-14 S107190813314 Sampled By: CLIENT on 19-AUG-13 Matrix: GW							
Polychlorinated Biphenyls							
Aroclor 1221	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1232	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1242	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1248	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1254	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1260	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1262	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Aroclor 1268	<0.000050		0.000050	mg/L	27-AUG-13	29-AUG-13	R2682453
Surrogate: Decachlorobiphenyl	108.0		50-150	%	27-AUG-13	29-AUG-13	R2682453
Total Polychlorinated Biphenyls	<0.00015		0.00015	mg/L		29-AUG-13	

* 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)
Duplicate	Dichloromethane	DLM	L1349512-1, -10, -14, -3, -4, -5, -6, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1349512-1
Matrix Spike	Boron (B)-Total	MS-B	L1349512-1
Matrix Spike	Lithium (Li)-Total	MS-B	L1349512-1
Matrix Spike	Manganese (Mn)-Total	MS-B	L1349512-1
Matrix Spike	Potassium (K)-Total	MS-B	L1349512-1
Matrix Spike	Silicon (Si)-Total	MS-B	L1349512-1
Matrix Spike	Strontium (Sr)-Total	MS-B	L1349512-1
Matrix Spike	Uranium (U)-Total	MS-B	L1349512-1
Matrix Spike	Barium (Ba)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Boron (B)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Lithium (Li)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Potassium (K)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Silicon (Si)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9
Matrix Spike	Uranium (U)-Total	MS-B	L1349512-10, -11, -12, -3, -4, -7, -8, -9

Sample Parameter Qualifier key listed:

Qualifier	Description
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjusted For Sample Matrix Effects
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA SW846 8260B REV 2 SEPT 1994

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP Water CCME Total Hydrocarbons 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.

F2-F4-WS-WP Water F2-F4 PHC method EPA 3510/8000

This is the determination of the Petroleum Hydrocarbon fractions in water (F2, F3 and F4). A water sample volume of 200 mL in a 250 mL glass amber bottle is shaken with 10 mL hexane for two hours on a wrist action shaker, and then sonicated for 5 minutes. After extraction, the solvent layer is drawn off and analyzed against C10, C16 and C34 standards on a gas chromatograph equipped with a flame ionization detector.

HG-T-CVAF-WP Water Mercury Total EPA245.7 V2.0

Reference Information

Mercury in filtered and unfiltered waters is oxidized with Bromine monochloride and analyzed by cold-vapour atomic fluorescence spectrometry.

MET-T-L-MS-WP Water Total Metals by ICP-MS U.S. EPA 200.8-TL

Total Metals by ICP-MS: This analysis is carried out using sample preparation procedures adapted from Standard Methods for the examination of Water and Wastewater Method 3030E and analytical procedures adapted from U.S EPA Method 200.8 for analyis of metals by inductively coupled-mass spectrometery.

PAH,PANH-WP Water Polyaromatic Hydrocarbons (PAHs) EPA SW 846/8270-GC/MS

Water is spiked with a surrogate spike mix and extracted using solvent extraction techniques. Analysis is performed by GC/MS in the selected ion monitoring (SIM) mode.

PCB-SUM-CALC-WP Water Total Polychlorinated Biphenyls (PCBs) Calculation

Total Polychlorinated Biphenyls (PCBs) represents the sum of all PCB analytes analyzed for in a given sample. For the purpose of calculation, results less than the detection limit (DL) are treated as zero.

PCB-WP Water PCB EPA 8082A (modified)

A one litre sample of water is extracted with dichloromethane using separatory funnel techniques. Extracts are concentrated and solvent exchanged with 2,2,4-TMP. PCBs are analyzed by GC-ECD.

THM-SUM-CALC-WP Water Total Trihalomethanes (THMs) CALCULATION

Total Trihalomethanes (THMs) represents the sum of bromodichloromethane, bromoform, chlorodibromomethane and chloroform. For the purpose of calculation, results less than the detection limit (DL) are treated as zero.

VOC+F1-HSMS-WP Water VOC plus F1 by GCMS EPA Method 8260C, Revision 3

In this method samples are analyzed using a headspace autosampler interfaced to a dual column gas chromatograph with MS and Flame Ionization detectors.

** 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
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

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: L1349512 Report Date: 30-AUG-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Water**							
Batch R2678292								
WG1732760-4 DUP		**L1348129-4**						
Benzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	22-AUG-13
Toluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	22-AUG-13
Ethyl benzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	22-AUG-13
o-Xylene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	22-AUG-13
m+p-Xylenes		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	22-AUG-13
F1 (C6-C10)		<0.10	<0.10	RPD-NA	mg/L	N/A	30	22-AUG-13
WG1732760-2 LCS								
Benzene			108.3		%		70-130	22-AUG-13
Toluene			105.5		%		70-130	22-AUG-13
Ethyl benzene			103.6		%		70-130	22-AUG-13
o-Xylene			105.5		%		70-130	22-AUG-13
m+p-Xylenes			95.4		%		70-130	22-AUG-13
WG1732760-3 LCS								
F1 (C6-C10)			91.3		%		80-120	22-AUG-13
WG1732760-1 MB								
Benzene			<0.00050		mg/L		0.0005	23-AUG-13
Toluene			<0.0010		mg/L		0.001	23-AUG-13
Ethyl benzene			<0.00050		mg/L		0.0005	23-AUG-13
o-Xylene			<0.00050		mg/L		0.0005	23-AUG-13
m+p-Xylenes			<0.00050		mg/L		0.0005	23-AUG-13
F1 (C6-C10)			<0.10		mg/L		0.1	23-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			109.2		%		70-130	23-AUG-13
Batch R2681362								
WG1735834-4 DUP		**L1351888-9**						
Benzene		0.0405	0.0392		mg/L	3.4	30	27-AUG-13
Toluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	27-AUG-13
Ethyl benzene		0.115	0.112		mg/L	2.9	30	27-AUG-13
o-Xylene		0.00768	0.00761		mg/L	0.9	30	27-AUG-13
m+p-Xylenes		0.128	0.123		mg/L	3.3	30	27-AUG-13
F1 (C6-C10)		0.60	0.63		mg/L	4.6	30	27-AUG-13
WG1735834-2 LCS								
Benzene			107.1		%		70-130	27-AUG-13
Toluene			93.5		%		70-130	27-AUG-13
Ethyl benzene			94.6		%		70-130	27-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Water**							
Batch R2681362								
WG1735834-2 LCS								
o-Xylene			104.3		%		70-130	27-AUG-13
m+p-Xylenes			82.2		%		70-130	27-AUG-13
WG1735834-3 LCS								
F1 (C6-C10)			87.3		%		80-120	27-AUG-13
WG1735834-1 MB								
Benzene			<0.00050		mg/L		0.0005	27-AUG-13
Toluene			<0.0010		mg/L		0.001	27-AUG-13
Ethyl benzene			<0.00050		mg/L		0.0005	27-AUG-13
o-Xylene			<0.00050		mg/L		0.0005	27-AUG-13
m+p-Xylenes			<0.00050		mg/L		0.0005	27-AUG-13
F1 (C6-C10)			<0.10		mg/L		0.1	27-AUG-13
Surrogate: 4-Bromofluorobenzene (SS)			108.6		%		70-130	27-AUG-13
F2-F4-WS-WP	**Water**							
Batch R2677248								
WG1731255-2 LCS								
F2 (C10-C16)			103.1		%		65-135	20-AUG-13
F3 (C16-C34)			102.6		%		65-135	20-AUG-13
F4 (C34-C50)			85.8		%		65-135	20-AUG-13
WG1731255-1 MB								
F2 (C10-C16)			<0.25		mg/L		0.25	20-AUG-13
F3 (C16-C34)			<0.25		mg/L		0.25	20-AUG-13
F4 (C34-C50)			<0.25		mg/L		0.25	20-AUG-13
Surrogate: 2-Bromobenzotrifluoride			80.4		%		65-135	20-AUG-13
HG-T-CVAF-WP	**Water**							
Batch R2678478								
WG1732151-3 DUP		**L1348594-1**						
Mercury (Hg)-Total		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	22-AUG-13
WG1732151-5 DUP		**L1348704-2**						
Mercury (Hg)-Total		<0.000020	<0.000020	RPD-NA	mg/L	N/A	20	22-AUG-13
WG1732151-2 LCS								
Mercury (Hg)-Total			97.8		%		80-120	22-AUG-13
WG1732151-1 MB								
Mercury (Hg)-Total			<0.000020		mg/L		0.00002	22-AUG-13
WG1732151-4 MS		**L1348594-1**						
Mercury (Hg)-Total			101.9		%		70-130	22-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-CVAF-WP	**Water**							
Batch R2678478								
WG1732151-6 MS		**L1348704-2**						
Mercury (Hg)-Total			88.4		%		70-130	22-AUG-13
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-10 DUP		**WG1729836-9**						
Aluminum (Al)-Total		0.0080	0.0078		mg/L	2.7	20	20-AUG-13
Antimony (Sb)-Total		0.00239	0.00240		mg/L	0.1	20	20-AUG-13
Arsenic (As)-Total		0.00935	0.00937		mg/L	0.2	20	20-AUG-13
Barium (Ba)-Total		0.00692	0.00697		mg/L	0.8	20	20-AUG-13
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Boron (B)-Total		0.038	0.039		mg/L	1.6	20	20-AUG-13
Cadmium (Cd)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	20-AUG-13
Calcium (Ca)-Total		167	163		mg/L	2.4	20	20-AUG-13
Cesium (Cs)-Total		0.00014	0.00014		mg/L	1.5	20	20-AUG-13
Chromium (Cr)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-13
Cobalt (Co)-Total		0.00762	0.00759		mg/L	0.3	20	20-AUG-13
Copper (Cu)-Total		0.00101	0.00107		mg/L	5.1	20	20-AUG-13
Iron (Fe)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Lead (Pb)-Total		<0.000090	<0.000090	RPD-NA	mg/L	N/A	20	20-AUG-13
Lithium (Li)-Total		0.0330	0.0335		mg/L	1.6	20	20-AUG-13
Magnesium (Mg)-Total		14.8	14.3		mg/L	3.2	20	20-AUG-13
Manganese (Mn)-Total		0.0488	0.0478		mg/L	1.9	20	20-AUG-13
Molybdenum (Mo)-Total		0.00187	0.00183		mg/L	2.1	20	20-AUG-13
Nickel (Ni)-Total		0.0086	0.0089		mg/L	3.4	20	20-AUG-13
Phosphorus (P)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Potassium (K)-Total		11.6	11.6		mg/L	0.4	20	20-AUG-13
Rubidium (Rb)-Total		0.0117	0.0119		mg/L	2.1	20	20-AUG-13
Selenium (Se)-Total		0.0045	0.0045		mg/L	0.7	20	20-AUG-13
Silicon (Si)-Total		0.255	0.250		mg/L	1.9	20	20-AUG-13
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Strontium (Sr)-Total		0.291	0.298		mg/L	2.4	20	20-AUG-13
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-10 DUP		**WG1729836-9**						
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Tin (Sn)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Titanium (Ti)-Total		0.00722	0.00724		mg/L	0.3	20	20-AUG-13
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Uranium (U)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Vanadium (V)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Zinc (Zn)-Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-AUG-13
Zirconium (Zr)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	20-AUG-13
WG1729836-4 DUP		**WG1729836-3**						
Aluminum (Al)-Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-AUG-13
Antimony (Sb)-Total		0.00024	0.00025		mg/L	0.8	20	20-AUG-13
Arsenic (As)-Total		0.00139	0.00140		mg/L	0.6	20	20-AUG-13
Barium (Ba)-Total		0.0278	0.0276		mg/L	0.8	20	20-AUG-13
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Boron (B)-Total		0.999	1.03		mg/L	3.0	20	20-AUG-13
Cadmium (Cd)-Total		0.000055	0.000050		mg/L	10	20	20-AUG-13
Calcium (Ca)-Total		225	221		mg/L	1.8	20	20-AUG-13
Cesium (Cs)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Chromium (Cr)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-13
Cobalt (Co)-Total		0.00309	0.00310		mg/L	0.1	20	20-AUG-13
Copper (Cu)-Total		0.00147	0.00143		mg/L	2.4	20	20-AUG-13
Iron (Fe)-Total		0.24	0.24		mg/L	0.4	20	20-AUG-13
Lead (Pb)-Total		<0.000090	<0.000090	RPD-NA	mg/L	N/A	20	20-AUG-13
Lithium (Li)-Total		0.117	0.119		mg/L	2.0	20	20-AUG-13
Manganese (Mn)-Total		1.64	1.63		mg/L	0.7	20	20-AUG-13
Molybdenum (Mo)-Total		0.00794	0.00802		mg/L	0.9	20	20-AUG-13
Nickel (Ni)-Total		0.0230	0.0232		mg/L	1.1	20	20-AUG-13
Phosphorus (P)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Potassium (K)-Total		13.4	13.2		mg/L	1.1	20	20-AUG-13
Rubidium (Rb)-Total		0.00358	0.00352		mg/L	1.5	20	20-AUG-13
Selenium (Se)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-4 DUP		**WG1729836-3**						
Silicon (Si)-Total		12.9	12.9		mg/L	0.2	20	20-AUG-13
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Strontium (Sr)-Total		0.771	0.769		mg/L	0.3	20	20-AUG-13
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Tin (Sn)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Titanium (Ti)-Total		0.0214	0.0222		mg/L	3.7	20	20-AUG-13
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Uranium (U)-Total		0.0262	0.0265		mg/L	0.9	20	20-AUG-13
Vanadium (V)-Total		0.00021	0.00023		mg/L	8.0	20	20-AUG-13
Zinc (Zn)-Total		0.0076	0.0073		mg/L	4.0	20	20-AUG-13
Zirconium (Zr)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	20-AUG-13
WG1729848-10 DUP		**WG1729848-9**						
Aluminum (Al)-Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-AUG-13
Antimony (Sb)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Arsenic (As)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Barium (Ba)-Total		0.121	0.120		mg/L	0.9	20	20-AUG-13
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Boron (B)-Total		0.026	0.025		mg/L	1.2	20	20-AUG-13
Cadmium (Cd)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	20-AUG-13
Calcium (Ca)-Total		82.1	80.3		mg/L	2.2	20	20-AUG-13
Cesium (Cs)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Chromium (Cr)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-13
Cobalt (Co)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Copper (Cu)-Total		0.0170	0.0172		mg/L	1.1	20	20-AUG-13
Iron (Fe)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Lead (Pb)-Total		0.000186	0.000186		mg/L	0.0	20	20-AUG-13
Lithium (Li)-Total		0.0139	0.0140		mg/L	1.0	20	20-AUG-13
Magnesium (Mg)-Total		78.2	76.1		mg/L	2.8	20	20-AUG-13
Manganese (Mn)-Total		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	20-AUG-13
Molybdenum (Mo)-Total		0.00082	0.00078		mg/L	4.3	20	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-10 DUP		**WG1729848-9**						
Nickel (Ni)-Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-AUG-13
Phosphorus (P)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Potassium (K)-Total		2.91	2.84		mg/L	2.5	20	20-AUG-13
Rubidium (Rb)-Total		0.00284	0.00279		mg/L	1.8	20	20-AUG-13
Selenium (Se)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	20-AUG-13
Silicon (Si)-Total		6.98	6.95		mg/L	0.4	20	20-AUG-13
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Strontium (Sr)-Total		0.124	0.122		mg/L	2.1	20	20-AUG-13
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Tin (Sn)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Titanium (Ti)-Total		0.00081	0.00081		mg/L	0.4	20	20-AUG-13
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Uranium (U)-Total		0.00394	0.00389		mg/L	1.3	20	20-AUG-13
Vanadium (V)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Zinc (Zn)-Total		0.0085	0.0084		mg/L	0.4	20	20-AUG-13
Zirconium (Zr)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	20-AUG-13
WG1729848-4 DUP		**WG1729848-3**						
Aluminum (Al)-Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	20-AUG-13
Antimony (Sb)-Total		0.00252	0.00246		mg/L	2.5	20	20-AUG-13
Arsenic (As)-Total		0.0207	0.0205		mg/L	0.7	20	20-AUG-13
Barium (Ba)-Total		0.00605	0.00586		mg/L	3.2	20	20-AUG-13
Beryllium (Be)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Bismuth (Bi)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Boron (B)-Total		0.022	0.021		mg/L	0.5	20	20-AUG-13
Cadmium (Cd)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	20-AUG-13
Calcium (Ca)-Total		167	161		mg/L	3.4	20	20-AUG-13
Cesium (Cs)-Total		0.00021	0.00021		mg/L	0.8	20	20-AUG-13
Chromium (Cr)-Total		0.0016	0.0016		mg/L	1.2	20	20-AUG-13
Cobalt (Co)-Total		0.00823	0.00810		mg/L	1.7	20	20-AUG-13
Copper (Cu)-Total		0.00136	0.00136		mg/L	0.2	20	20-AUG-13
Iron (Fe)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-4 DUP		**WG1729848-3**						
Lead (Pb)-Total		<0.000090	<0.000090	RPD-NA	mg/L	N/A	20	20-AUG-13
Lithium (Li)-Total		0.0313	0.0308		mg/L	1.5	20	20-AUG-13
Magnesium (Mg)-Total		13.7	13.1		mg/L	4.7	20	20-AUG-13
Manganese (Mn)-Total		0.00099	0.00097		mg/L	2.9	20	20-AUG-13
Molybdenum (Mo)-Total		0.00237	0.00232		mg/L	2.3	20	20-AUG-13
Nickel (Ni)-Total		0.0062	0.0062		mg/L	0.4	20	20-AUG-13
Phosphorus (P)-Total		<0.10	<0.10	RPD-NA	mg/L	N/A	20	20-AUG-13
Potassium (K)-Total		12.3	12.0		mg/L	2.9	20	20-AUG-13
Rubidium (Rb)-Total		0.0136	0.0133		mg/L	2.0	20	20-AUG-13
Selenium (Se)-Total		0.0052	0.0052		mg/L	0.8	20	20-AUG-13
Silicon (Si)-Total		0.325	0.317		mg/L	2.6	20	20-AUG-13
Silver (Ag)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Strontium (Sr)-Total		0.297	0.292		mg/L	1.9	20	20-AUG-13
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Thallium (Tl)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Tin (Sn)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	20-AUG-13
Titanium (Ti)-Total		0.0237	0.0237		mg/L	0.1	20	20-AUG-13
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Uranium (U)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	20-AUG-13
Vanadium (V)-Total		0.00030	0.00029		mg/L	2.4	20	20-AUG-13
Zinc (Zn)-Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	20-AUG-13
Zirconium (Zr)-Total		<0.00040	<0.00040	RPD-NA	mg/L	N/A	20	20-AUG-13
WG1729836-2 LCS								
Aluminum (Al)-Total			101.1		%		80-120	20-AUG-13
Antimony (Sb)-Total			106.1		%		80-120	20-AUG-13
Arsenic (As)-Total			102.5		%		80-120	20-AUG-13
Barium (Ba)-Total			101.8		%		80-120	20-AUG-13
Beryllium (Be)-Total			100.3		%		80-120	20-AUG-13
Bismuth (Bi)-Total			106.6		%		80-120	20-AUG-13
Boron (B)-Total			98.1		%		80-120	20-AUG-13
Cadmium (Cd)-Total			102.3		%		80-120	20-AUG-13
Calcium (Ca)-Total			105.6		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-2 LCS								
Cesium (Cs)-Total			100.7		%		80-120	20-AUG-13
Chromium (Cr)-Total			105.1		%		80-120	20-AUG-13
Cobalt (Co)-Total			103.0		%		80-120	20-AUG-13
Copper (Cu)-Total			103.2		%		80-120	20-AUG-13
Iron (Fe)-Total			98.3		%		80-120	20-AUG-13
Lead (Pb)-Total			105.9		%		80-120	20-AUG-13
Lithium (Li)-Total			105.9		%		80-120	20-AUG-13
Magnesium (Mg)-Total			106.8		%		80-120	20-AUG-13
Manganese (Mn)-Total			103.7		%		80-120	20-AUG-13
Molybdenum (Mo)-Total			105.1		%		80-120	20-AUG-13
Nickel (Ni)-Total			104.8		%		80-120	20-AUG-13
Phosphorus (P)-Total			110.5		%		80-120	20-AUG-13
Potassium (K)-Total			105.9		%		80-120	20-AUG-13
Rubidium (Rb)-Total			104.2		%		80-120	20-AUG-13
Selenium (Se)-Total			102.1		%		80-120	20-AUG-13
Silicon (Si)-Total			107.4		%		80-120	20-AUG-13
Silver (Ag)-Total			104.8		%		80-120	20-AUG-13
Strontium (Sr)-Total			103.0		%		80-120	20-AUG-13
Tellurium (Te)-Total			100.6		%		80-120	20-AUG-13
Thallium (Tl)-Total			107.9		%		80-120	20-AUG-13
Thorium (Th)-Total			105.5		%		80-120	20-AUG-13
Tin (Sn)-Total			104.4		%		80-120	20-AUG-13
Titanium (Ti)-Total			107.7		%		80-120	20-AUG-13
Tungsten (W)-Total			103.1		%		80-120	20-AUG-13
Uranium (U)-Total			104.3		%		80-120	20-AUG-13
Vanadium (V)-Total			106.8		%		80-120	20-AUG-13
Zinc (Zn)-Total			103.2		%		80-120	20-AUG-13
Zirconium (Zr)-Total			104.3		%		80-120	20-AUG-13
WG1729836-8 LCS								
Aluminum (Al)-Total			101.0		%		80-120	20-AUG-13
Antimony (Sb)-Total			105.1		%		80-120	20-AUG-13
Arsenic (As)-Total			100.0		%		80-120	20-AUG-13
Barium (Ba)-Total			100.5		%		80-120	20-AUG-13
Beryllium (Be)-Total			100.4		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-8 LCS								
Bismuth (Bi)-Total			106.3		%		80-120	20-AUG-13
Boron (B)-Total			97.3		%		80-120	20-AUG-13
Cadmium (Cd)-Total			100.2		%		80-120	20-AUG-13
Calcium (Ca)-Total			103.6		%		80-120	20-AUG-13
Cesium (Cs)-Total			99.1		%		80-120	20-AUG-13
Chromium (Cr)-Total			102.4		%		80-120	20-AUG-13
Cobalt (Co)-Total			101.2		%		80-120	20-AUG-13
Copper (Cu)-Total			101.5		%		80-120	20-AUG-13
Iron (Fe)-Total			97.8		%		80-120	20-AUG-13
Lead (Pb)-Total			106.7		%		80-120	20-AUG-13
Lithium (Li)-Total			105.3		%		80-120	20-AUG-13
Magnesium (Mg)-Total			108.9		%		80-120	20-AUG-13
Manganese (Mn)-Total			100.0		%		80-120	20-AUG-13
Molybdenum (Mo)-Total			103.3		%		80-120	20-AUG-13
Nickel (Ni)-Total			103.5		%		80-120	20-AUG-13
Phosphorus (P)-Total			107.5		%		80-120	20-AUG-13
Potassium (K)-Total			104.5		%		80-120	20-AUG-13
Rubidium (Rb)-Total			102.7		%		80-120	20-AUG-13
Selenium (Se)-Total			101.6		%		80-120	20-AUG-13
Silicon (Si)-Total			106.5		%		80-120	20-AUG-13
Silver (Ag)-Total			104.8		%		80-120	20-AUG-13
Strontium (Sr)-Total			101.4		%		80-120	20-AUG-13
Tellurium (Te)-Total			100.4		%		80-120	20-AUG-13
Thallium (Tl)-Total			107.4		%		80-120	20-AUG-13
Thorium (Th)-Total			105.9		%		80-120	20-AUG-13
Tin (Sn)-Total			103.4		%		80-120	20-AUG-13
Titanium (Ti)-Total			103.1		%		80-120	20-AUG-13
Tungsten (W)-Total			104.3		%		80-120	20-AUG-13
Uranium (U)-Total			103.2		%		80-120	20-AUG-13
Vanadium (V)-Total			104.5		%		80-120	20-AUG-13
Zinc (Zn)-Total			103.5		%		80-120	20-AUG-13
Zirconium (Zr)-Total			102.6		%		80-120	20-AUG-13
WG1729848-2 LCS								
Aluminum (Al)-Total			101.6		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-2 LCS								
Antimony (Sb)-Total			105.4		%		80-120	20-AUG-13
Arsenic (As)-Total			101.2		%		80-120	20-AUG-13
Barium (Ba)-Total			100.4		%		80-120	20-AUG-13
Beryllium (Be)-Total			104.1		%		80-120	20-AUG-13
Bismuth (Bi)-Total			101.2		%		80-120	20-AUG-13
Boron (B)-Total			90.9		%		80-120	20-AUG-13
Cadmium (Cd)-Total			101.2		%		80-120	20-AUG-13
Calcium (Ca)-Total			105.5		%		80-120	20-AUG-13
Cesium (Cs)-Total			99.0		%		80-120	20-AUG-13
Chromium (Cr)-Total			99.6		%		80-120	20-AUG-13
Cobalt (Co)-Total			101.1		%		80-120	20-AUG-13
Copper (Cu)-Total			100.9		%		80-120	20-AUG-13
Iron (Fe)-Total			99.9		%		80-120	20-AUG-13
Lead (Pb)-Total			107.9		%		80-120	20-AUG-13
Lithium (Li)-Total			104.1		%		80-120	20-AUG-13
Magnesium (Mg)-Total			100.2		%		80-120	20-AUG-13
Manganese (Mn)-Total			98.7		%		80-120	20-AUG-13
Molybdenum (Mo)-Total			104.8		%		80-120	20-AUG-13
Nickel (Ni)-Total			105.6		%		80-120	20-AUG-13
Phosphorus (P)-Total			99.0		%		80-120	20-AUG-13
Potassium (K)-Total			101.0		%		80-120	20-AUG-13
Rubidium (Rb)-Total			105.2		%		80-120	20-AUG-13
Selenium (Se)-Total			99.7		%		80-120	20-AUG-13
Silicon (Si)-Total			101.9		%		80-120	20-AUG-13
Silver (Ag)-Total			104.2		%		80-120	20-AUG-13
Strontium (Sr)-Total			101.8		%		80-120	20-AUG-13
Tellurium (Te)-Total			99.99		%		80-120	20-AUG-13
Thallium (Tl)-Total			105.5		%		80-120	20-AUG-13
Thorium (Th)-Total			100.9		%		80-120	20-AUG-13
Tin (Sn)-Total			105.9		%		80-120	20-AUG-13
Titanium (Ti)-Total			100.5		%		80-120	20-AUG-13
Tungsten (W)-Total			101.7		%		80-120	20-AUG-13
Uranium (U)-Total			105.3		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-2 LCS								
Vanadium (V)-Total			102.1		%		80-120	20-AUG-13
Zinc (Zn)-Total			101.4		%		80-120	20-AUG-13
Zirconium (Zr)-Total			102.5		%		80-120	20-AUG-13
WG1729848-8 LCS								
Aluminum (Al)-Total			106.3		%		80-120	20-AUG-13
Antimony (Sb)-Total			101.2		%		80-120	20-AUG-13
Arsenic (As)-Total			100.6		%		80-120	20-AUG-13
Barium (Ba)-Total			97.8		%		80-120	20-AUG-13
Beryllium (Be)-Total			105.7		%		80-120	20-AUG-13
Bismuth (Bi)-Total			107.8		%		80-120	20-AUG-13
Boron (B)-Total			93.3		%		80-120	20-AUG-13
Cadmium (Cd)-Total			98.3		%		80-120	20-AUG-13
Calcium (Ca)-Total			104.5		%		80-120	20-AUG-13
Cesium (Cs)-Total			99.0		%		80-120	20-AUG-13
Chromium (Cr)-Total			99.0		%		80-120	20-AUG-13
Cobalt (Co)-Total			100.9		%		80-120	20-AUG-13
Copper (Cu)-Total			100.8		%		80-120	20-AUG-13
Iron (Fe)-Total			98.8		%		80-120	20-AUG-13
Lead (Pb)-Total			105.4		%		80-120	20-AUG-13
Lithium (Li)-Total			103.1		%		80-120	20-AUG-13
Magnesium (Mg)-Total			101.6		%		80-120	20-AUG-13
Manganese (Mn)-Total			98.8		%		80-120	20-AUG-13
Molybdenum (Mo)-Total			106.7		%		80-120	20-AUG-13
Nickel (Ni)-Total			103.9		%		80-120	20-AUG-13
Phosphorus (P)-Total			102.4		%		80-120	20-AUG-13
Potassium (K)-Total			102.1		%		80-120	20-AUG-13
Rubidium (Rb)-Total			104.0		%		80-120	20-AUG-13
Selenium (Se)-Total			101.1		%		80-120	20-AUG-13
Silicon (Si)-Total			101.7		%		80-120	20-AUG-13
Silver (Ag)-Total			104.2		%		80-120	20-AUG-13
Strontium (Sr)-Total			101.4		%		80-120	20-AUG-13
Tellurium (Te)-Total			99.99		%		80-120	20-AUG-13
Thallium (Tl)-Total			105.3		%		80-120	20-AUG-13
Thorium (Th)-Total			103.9		%		80-120	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-8 LCS								
Tin (Sn)-Total			103.3		%		80-120	20-AUG-13
Titanium (Ti)-Total			104.2		%		80-120	20-AUG-13
Tungsten (W)-Total			100.0		%		80-120	20-AUG-13
Uranium (U)-Total			103.5		%		80-120	20-AUG-13
Vanadium (V)-Total			102.4		%		80-120	20-AUG-13
Zinc (Zn)-Total			102.2		%		80-120	20-AUG-13
Zirconium (Zr)-Total			102.9		%		80-120	20-AUG-13
WG1729836-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	20-AUG-13
Antimony (Sb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Arsenic (As)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Barium (Ba)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Boron (B)-Total			<0.010		mg/L		0.01	20-AUG-13
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	20-AUG-13
Calcium (Ca)-Total			<0.10		mg/L		0.1	20-AUG-13
Cesium (Cs)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Chromium (Cr)-Total			<0.0010		mg/L		0.001	20-AUG-13
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Copper (Cu)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Iron (Fe)-Total			<0.10		mg/L		0.1	20-AUG-13
Lead (Pb)-Total			<0.000090		mg/L		0.00009	20-AUG-13
Lithium (Li)-Total			<0.0020		mg/L		0.002	20-AUG-13
Magnesium (Mg)-Total			<0.010		mg/L		0.01	20-AUG-13
Manganese (Mn)-Total			<0.00030		mg/L		0.0003	20-AUG-13
Molybdenum (Mo)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Nickel (Ni)-Total			<0.0020		mg/L		0.002	20-AUG-13
Phosphorus (P)-Total			<0.10		mg/L		0.1	20-AUG-13
Potassium (K)-Total			<0.020		mg/L		0.02	20-AUG-13
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Selenium (Se)-Total			<0.0010		mg/L		0.001	20-AUG-13
Silicon (Si)-Total			<0.050		mg/L		0.05	20-AUG-13
Silver (Ag)-Total			<0.00010		mg/L		0.0001	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-1 MB								
Strontium (Sr)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Thorium (Th)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tin (Sn)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Titanium (Ti)-Total			<0.00050		mg/L		0.0005	20-AUG-13
Tungsten (W)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Uranium (U)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Vanadium (V)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Zinc (Zn)-Total			<0.0020		mg/L		0.002	20-AUG-13
Zirconium (Zr)-Total			<0.00040		mg/L		0.0004	20-AUG-13
WG1729836-7 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	20-AUG-13
Antimony (Sb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Arsenic (As)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Barium (Ba)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Boron (B)-Total			<0.010		mg/L		0.01	20-AUG-13
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	20-AUG-13
Calcium (Ca)-Total			<0.10		mg/L		0.1	20-AUG-13
Cesium (Cs)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Chromium (Cr)-Total			<0.0010		mg/L		0.001	20-AUG-13
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Copper (Cu)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Iron (Fe)-Total			<0.10		mg/L		0.1	20-AUG-13
Lead (Pb)-Total			<0.000090		mg/L		0.00009	20-AUG-13
Lithium (Li)-Total			<0.0020		mg/L		0.002	20-AUG-13
Magnesium (Mg)-Total			<0.010		mg/L		0.01	20-AUG-13
Manganese (Mn)-Total			<0.00030		mg/L		0.0003	20-AUG-13
Molybdenum (Mo)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Nickel (Ni)-Total			<0.0020		mg/L		0.002	20-AUG-13
Phosphorus (P)-Total			<0.10		mg/L		0.1	20-AUG-13
Potassium (K)-Total			<0.020		mg/L		0.02	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-7 MB								
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Selenium (Se)-Total			<0.0010		mg/L		0.001	20-AUG-13
Silicon (Si)-Total			<0.050		mg/L		0.05	20-AUG-13
Silver (Ag)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Strontium (Sr)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Thorium (Th)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tin (Sn)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Titanium (Ti)-Total			<0.00050		mg/L		0.0005	20-AUG-13
Tungsten (W)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Uranium (U)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Vanadium (V)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Zinc (Zn)-Total			<0.0020		mg/L		0.002	20-AUG-13
Zirconium (Zr)-Total			<0.00040		mg/L		0.0004	20-AUG-13
WG1729848-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	20-AUG-13
Antimony (Sb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Arsenic (As)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Barium (Ba)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Boron (B)-Total			<0.010		mg/L		0.01	20-AUG-13
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	20-AUG-13
Calcium (Ca)-Total			<0.10		mg/L		0.1	20-AUG-13
Cesium (Cs)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Chromium (Cr)-Total			<0.0010		mg/L		0.001	20-AUG-13
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Copper (Cu)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Iron (Fe)-Total			<0.10		mg/L		0.1	20-AUG-13
Lead (Pb)-Total			<0.000090		mg/L		0.00009	20-AUG-13
Lithium (Li)-Total			<0.0020		mg/L		0.002	20-AUG-13
Magnesium (Mg)-Total			<0.010		mg/L		0.01	20-AUG-13
Manganese (Mn)-Total			<0.00030		mg/L		0.0003	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-1 MB								
Molybdenum (Mo)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Nickel (Ni)-Total			<0.0020		mg/L		0.002	20-AUG-13
Phosphorus (P)-Total			<0.10		mg/L		0.1	20-AUG-13
Potassium (K)-Total			<0.020		mg/L		0.02	20-AUG-13
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Selenium (Se)-Total			<0.0010		mg/L		0.001	20-AUG-13
Silicon (Si)-Total			<0.050		mg/L		0.05	20-AUG-13
Silver (Ag)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Strontium (Sr)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Thorium (Th)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tin (Sn)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Titanium (Ti)-Total			<0.00050		mg/L		0.0005	20-AUG-13
Tungsten (W)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Uranium (U)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Vanadium (V)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Zinc (Zn)-Total			<0.0020		mg/L		0.002	20-AUG-13
Zirconium (Zr)-Total			<0.00040		mg/L		0.0004	20-AUG-13
WG1729848-7 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	20-AUG-13
Antimony (Sb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Arsenic (As)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Barium (Ba)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Beryllium (Be)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Bismuth (Bi)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Boron (B)-Total			<0.010		mg/L		0.01	20-AUG-13
Cadmium (Cd)-Total			<0.000010		mg/L		0.00001	20-AUG-13
Calcium (Ca)-Total			<0.10		mg/L		0.1	20-AUG-13
Cesium (Cs)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Chromium (Cr)-Total			<0.0010		mg/L		0.001	20-AUG-13
Cobalt (Co)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Copper (Cu)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Iron (Fe)-Total			<0.10		mg/L		0.1	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-7 MB								
Lead (Pb)-Total			<0.000090		mg/L		0.00009	20-AUG-13
Lithium (Li)-Total			<0.0020		mg/L		0.002	20-AUG-13
Magnesium (Mg)-Total			<0.010		mg/L		0.01	20-AUG-13
Manganese (Mn)-Total			<0.00030		mg/L		0.0003	20-AUG-13
Molybdenum (Mo)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Nickel (Ni)-Total			<0.0020		mg/L		0.002	20-AUG-13
Phosphorus (P)-Total			<0.10		mg/L		0.1	20-AUG-13
Potassium (K)-Total			<0.020		mg/L		0.02	20-AUG-13
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Selenium (Se)-Total			<0.0010		mg/L		0.001	20-AUG-13
Silicon (Si)-Total			<0.050		mg/L		0.05	20-AUG-13
Silver (Ag)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Strontium (Sr)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Thallium (Tl)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Thorium (Th)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Tin (Sn)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Titanium (Ti)-Total			<0.00050		mg/L		0.0005	20-AUG-13
Tungsten (W)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Uranium (U)-Total			<0.00010		mg/L		0.0001	20-AUG-13
Vanadium (V)-Total			<0.00020		mg/L		0.0002	20-AUG-13
Zinc (Zn)-Total			<0.0020		mg/L		0.002	20-AUG-13
Zirconium (Zr)-Total			<0.00040		mg/L		0.0004	20-AUG-13
WG1729836-12 MS		**WG1729836-11**						
Aluminum (Al)-Total			114.0		%		70-130	20-AUG-13
Antimony (Sb)-Total			95.4		%		70-130	20-AUG-13
Arsenic (As)-Total			103.8		%		70-130	20-AUG-13
Barium (Ba)-Total			N/A	MS-B	%		-	20-AUG-13
Beryllium (Be)-Total			101.7		%		70-130	20-AUG-13
Bismuth (Bi)-Total			90.1		%		70-130	20-AUG-13
Boron (B)-Total			N/A	MS-B	%		-	20-AUG-13
Cadmium (Cd)-Total			93.2		%		70-130	20-AUG-13
Calcium (Ca)-Total			N/A	MS-B	%		-	20-AUG-13
Cesium (Cs)-Total			94.0		%		70-130	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-12 MS		**WG1729836-11**						
Chromium (Cr)-Total			109.0		%		70-130	20-AUG-13
Cobalt (Co)-Total			102.1		%		70-130	20-AUG-13
Copper (Cu)-Total			96.4		%		70-130	20-AUG-13
Iron (Fe)-Total			106.6		%		70-130	20-AUG-13
Lead (Pb)-Total			94.1		%		70-130	20-AUG-13
Lithium (Li)-Total			N/A	MS-B	%		-	20-AUG-13
Magnesium (Mg)-Total			N/A	MS-B	%		-	20-AUG-13
Manganese (Mn)-Total			N/A	MS-B	%		-	20-AUG-13
Molybdenum (Mo)-Total			107.9		%		70-130	20-AUG-13
Nickel (Ni)-Total			96.1		%		70-130	20-AUG-13
Phosphorus (P)-Total			108.8		%		70-130	20-AUG-13
Potassium (K)-Total			N/A	MS-B	%		-	20-AUG-13
Rubidium (Rb)-Total			103.2		%		70-130	20-AUG-13
Selenium (Se)-Total			100.8		%		70-130	20-AUG-13
Silicon (Si)-Total			N/A	MS-B	%		-	20-AUG-13
Silver (Ag)-Total			95.4		%		70-130	20-AUG-13
Strontium (Sr)-Total			N/A	MS-B	%		-	20-AUG-13
Tellurium (Te)-Total			91.6		%		70-130	20-AUG-13
Thallium (Tl)-Total			92.2		%		70-130	20-AUG-13
Tin (Sn)-Total			98.4		%		70-130	20-AUG-13
Titanium (Ti)-Total			114.4		%		70-130	20-AUG-13
Tungsten (W)-Total			96.9		%		70-130	20-AUG-13
Uranium (U)-Total			N/A	MS-B	%		-	20-AUG-13
Vanadium (V)-Total			117.3		%		70-130	20-AUG-13
Zinc (Zn)-Total			90.9		%		70-130	20-AUG-13
Zirconium (Zr)-Total			106.1		%		70-130	20-AUG-13
WG1729836-6 MS		**WG1729836-5**						
Aluminum (Al)-Total			102.5		%		70-130	20-AUG-13
Antimony (Sb)-Total			102.5		%		70-130	20-AUG-13
Arsenic (As)-Total			105.2		%		70-130	20-AUG-13
Barium (Ba)-Total			100.2		%		70-130	20-AUG-13
Beryllium (Be)-Total			95.8		%		70-130	20-AUG-13
Bismuth (Bi)-Total			100.1		%		70-130	20-AUG-13
Boron (B)-Total			98.9		%		70-130	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729836-6 MS		**WG1729836-5**						
Cadmium (Cd)-Total			104.7		%		70-130	20-AUG-13
Calcium (Ca)-Total			104.6		%		70-130	20-AUG-13
Cesium (Cs)-Total			97.5		%		70-130	20-AUG-13
Chromium (Cr)-Total			103.0		%		70-130	20-AUG-13
Cobalt (Co)-Total			102.1		%		70-130	20-AUG-13
Copper (Cu)-Total			102.2		%		70-130	20-AUG-13
Iron (Fe)-Total			100.2		%		70-130	20-AUG-13
Lead (Pb)-Total			104.5		%		70-130	20-AUG-13
Lithium (Li)-Total			102.3		%		70-130	20-AUG-13
Magnesium (Mg)-Total			107.0		%		70-130	20-AUG-13
Manganese (Mn)-Total			98.9		%		70-130	20-AUG-13
Molybdenum (Mo)-Total			100.8		%		70-130	20-AUG-13
Nickel (Ni)-Total			104.0		%		70-130	20-AUG-13
Phosphorus (P)-Total			101.6		%		70-130	20-AUG-13
Potassium (K)-Total			102.9		%		70-130	20-AUG-13
Rubidium (Rb)-Total			99.2		%		70-130	20-AUG-13
Selenium (Se)-Total			98.6		%		70-130	20-AUG-13
Silicon (Si)-Total			100.2		%		70-130	20-AUG-13
Silver (Ag)-Total			108.7		%		70-130	20-AUG-13
Strontium (Sr)-Total			99.8		%		70-130	20-AUG-13
Tellurium (Te)-Total			104.4		%		70-130	20-AUG-13
Thallium (Tl)-Total			100.2		%		70-130	20-AUG-13
Tin (Sn)-Total			101.5		%		70-130	20-AUG-13
Titanium (Ti)-Total			106.1		%		70-130	20-AUG-13
Tungsten (W)-Total			98.6		%		70-130	20-AUG-13
Uranium (U)-Total			101.3		%		70-130	20-AUG-13
Vanadium (V)-Total			105.0		%		70-130	20-AUG-13
Zinc (Zn)-Total			103.2		%		70-130	20-AUG-13
Zirconium (Zr)-Total			101.1		%		70-130	20-AUG-13
WG1729848-12 MS		**WG1729848-11**						
Aluminum (Al)-Total			113.0		%		70-130	20-AUG-13
Antimony (Sb)-Total			96.8		%		70-130	20-AUG-13
Arsenic (As)-Total			102.4		%		70-130	20-AUG-13
Barium (Ba)-Total			N/A	MS-B	%		-	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-12 MS		**WG1729848-11**						
Beryllium (Be)-Total			89.6		%		70-130	20-AUG-13
Bismuth (Bi)-Total			96.6		%		70-130	20-AUG-13
Boron (B)-Total			89.9		%		70-130	20-AUG-13
Cadmium (Cd)-Total			95.6		%		70-130	20-AUG-13
Calcium (Ca)-Total			N/A	MS-B	%		-	20-AUG-13
Cesium (Cs)-Total			96.6		%		70-130	20-AUG-13
Chromium (Cr)-Total			110.8		%		70-130	20-AUG-13
Cobalt (Co)-Total			105.4		%		70-130	20-AUG-13
Copper (Cu)-Total			97.4		%		70-130	20-AUG-13
Iron (Fe)-Total			106.7		%		70-130	20-AUG-13
Lead (Pb)-Total			98.8		%		70-130	20-AUG-13
Lithium (Li)-Total			101.2		%		70-130	20-AUG-13
Magnesium (Mg)-Total			N/A	MS-B	%		-	20-AUG-13
Manganese (Mn)-Total			106.1		%		70-130	20-AUG-13
Molybdenum (Mo)-Total			110.5		%		70-130	20-AUG-13
Nickel (Ni)-Total			102.6		%		70-130	20-AUG-13
Phosphorus (P)-Total			104.9		%		70-130	20-AUG-13
Potassium (K)-Total			110.2		%		70-130	20-AUG-13
Rubidium (Rb)-Total			104.8		%		70-130	20-AUG-13
Selenium (Se)-Total			92.4		%		70-130	20-AUG-13
Silicon (Si)-Total			105.8		%		70-130	20-AUG-13
Silver (Ag)-Total			99.6		%		70-130	20-AUG-13
Strontium (Sr)-Total			N/A	MS-B	%		-	20-AUG-13
Tellurium (Te)-Total			86.2		%		70-130	20-AUG-13
Thallium (Tl)-Total			97.8		%		70-130	20-AUG-13
Tin (Sn)-Total			99.9		%		70-130	20-AUG-13
Titanium (Ti)-Total			116.0		%		70-130	20-AUG-13
Tungsten (W)-Total			100.5		%		70-130	20-AUG-13
Uranium (U)-Total			103.8		%		70-130	20-AUG-13
Vanadium (V)-Total			115.4		%		70-130	20-AUG-13
Zinc (Zn)-Total			93.3		%		70-130	20-AUG-13
Zirconium (Zr)-Total			106.0		%		70-130	20-AUG-13
WG1729848-6 MS		**WG1729848-5**						
Aluminum (Al)-Total			121.3		%		70-130	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-6 MS		**WG1729848-5**						
Antimony (Sb)-Total			96.2		%		70-130	20-AUG-13
Arsenic (As)-Total			101.5		%		70-130	20-AUG-13
Barium (Ba)-Total			N/A	MS-B	%		-	20-AUG-13
Beryllium (Be)-Total			102.7		%		70-130	20-AUG-13
Bismuth (Bi)-Total			92.4		%		70-130	20-AUG-13
Boron (B)-Total			N/A	MS-B	%		-	20-AUG-13
Cadmium (Cd)-Total			94.3		%		70-130	20-AUG-13
Calcium (Ca)-Total			N/A	MS-B	%		-	20-AUG-13
Cesium (Cs)-Total			92.8		%		70-130	20-AUG-13
Chromium (Cr)-Total			110.4		%		70-130	20-AUG-13
Cobalt (Co)-Total			103.0		%		70-130	20-AUG-13
Copper (Cu)-Total			95.2		%		70-130	20-AUG-13
Iron (Fe)-Total			100.8		%		70-130	20-AUG-13
Lead (Pb)-Total			95.3		%		70-130	20-AUG-13
Lithium (Li)-Total			N/A	MS-B	%		-	20-AUG-13
Manganese (Mn)-Total			N/A	MS-B	%		-	20-AUG-13
Molybdenum (Mo)-Total			110.3		%		70-130	20-AUG-13
Nickel (Ni)-Total			99.4		%		70-130	20-AUG-13
Phosphorus (P)-Total			108.8		%		70-130	20-AUG-13
Potassium (K)-Total			N/A	MS-B	%		-	20-AUG-13
Rubidium (Rb)-Total			105.8		%		70-130	20-AUG-13
Selenium (Se)-Total			103.3		%		70-130	20-AUG-13
Silicon (Si)-Total			N/A	MS-B	%		-	20-AUG-13
Silver (Ag)-Total			95.6		%		70-130	20-AUG-13
Strontium (Sr)-Total			N/A	MS-B	%		-	20-AUG-13
Tellurium (Te)-Total			90.9		%		70-130	20-AUG-13
Thallium (Tl)-Total			94.5		%		70-130	20-AUG-13
Tin (Sn)-Total			100.5		%		70-130	20-AUG-13
Titanium (Ti)-Total			119.4		%		70-130	20-AUG-13
Tungsten (W)-Total			101.0		%		70-130	20-AUG-13
Uranium (U)-Total			N/A	MS-B	%		-	20-AUG-13
Vanadium (V)-Total			118.8		%		70-130	20-AUG-13
Zinc (Zn)-Total			92.5		%		70-130	20-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-L-MS-WP	**Water**							
Batch R2676267								
WG1729848-6 MS		**WG1729848-5**						
Zirconium (Zr)-Total			105.4		%		70-130	20-AUG-13
PAH,PANH-WP	**Water**							
Batch R2679774								
WG1734159-2 LCS								
1-Methyl Naphthalene			118.2		%		60-130	26-AUG-13
2-Methyl Naphthalene			112.5		%		60-130	26-AUG-13
Acenaphthene			118.0		%		60-130	26-AUG-13
Acenaphthylene			96.0		%		60-130	26-AUG-13
Anthracene			101.0		%		60-130	26-AUG-13
Acridine			122.3		%		60-130	26-AUG-13
Benzo(a)anthracene			106.9		%		60-130	26-AUG-13
Benzo(a)pyrene			114.8		%		60-130	26-AUG-13
Benzo(b&j)fluoranthene			117.5		%		60-130	26-AUG-13
Benzo(g,h,i)perylene			107.1		%		60-130	26-AUG-13
Benzo(k)fluoranthene			108.4		%		60-130	26-AUG-13
Chrysene			109.6		%		60-130	26-AUG-13
Dibenzo(a,h)anthracene			112.9		%		60-130	26-AUG-13
Fluoranthene			117.4		%		60-130	26-AUG-13
Fluorene			115.3		%		60-130	26-AUG-13
Indeno(1,2,3-cd)pyrene			115.2		%		60-130	26-AUG-13
Naphthalene			84.2		%		50-130	26-AUG-13
Phenanthrene			95.9		%		60-130	26-AUG-13
Pyrene			123.1		%		60-130	26-AUG-13
Quinoline			115.2		%		60-130	26-AUG-13
WG1734159-1 MB								
1-Methyl Naphthalene			<0.000020		mg/L		0.00002	26-AUG-13
2-Methyl Naphthalene			<0.000020		mg/L		0.00002	26-AUG-13
Acenaphthene			<0.000020		mg/L		0.00002	26-AUG-13
Acenaphthylene			<0.000020		mg/L		0.00002	26-AUG-13
Anthracene			<0.000010		mg/L		0.00001	26-AUG-13
Acridine			<0.000020		mg/L		0.00002	26-AUG-13
Benzo(a)anthracene			<0.000010		mg/L		0.00001	26-AUG-13
Benzo(a)pyrene			<0.000005(		mg/L		0.000005	26-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5

Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Water**							
Batch R2679774								
WG1734159-1 MB								
Benzo(b&j)fluoranthene			<0.000010		mg/L		0.00001	26-AUG-13
Benzo(g,h,i)perylene			<0.000020		mg/L		0.00002	26-AUG-13
Benzo(k)fluoranthene			<0.000010		mg/L		0.00001	26-AUG-13
Chrysene			<0.000020		mg/L		0.00002	26-AUG-13
Dibenzo(a,h)anthracene			<0.000005(		mg/L		0.000005	26-AUG-13
Fluoranthene			<0.000020		mg/L		0.00002	26-AUG-13
Fluorene			<0.000020		mg/L		0.00002	26-AUG-13
Indeno(1,2,3-cd)pyrene			<0.000010		mg/L		0.00001	26-AUG-13
Naphthalene			<0.000050		mg/L		0.00005	26-AUG-13
Phenanthrene			<0.000050		mg/L		0.00005	26-AUG-13
Pyrene			<0.000010		mg/L		0.00001	26-AUG-13
Quinoline			<0.000020		mg/L		0.00002	26-AUG-13
Surrogate: Acenaphthene d10			88.2		%		40-130	26-AUG-13
Surrogate: Acridine d9			93.9		%		40-130	26-AUG-13
Surrogate: Chrysene d12			71.7		%		40-130	26-AUG-13
Surrogate: Naphthalene d8			78.6		%		40-130	26-AUG-13
Surrogate: Phenanthrene d10			91.3		%		40-130	26-AUG-13
PCB-WP	**Water**							
Batch R2682453								
WG1736793-2 LCS								
Aroclor 1260			99.4		%		65-130	29-AUG-13
WG1736793-1 MB								
Aroclor 1016			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1221			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1232			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1242			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1248			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1254			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1260			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1262			<0.000050		mg/L		0.00005	29-AUG-13
Aroclor 1268			<0.000050		mg/L		0.00005	29-AUG-13
Surrogate: Decachlorobiphenyl			120.0		%		50-150	29-AUG-13
VOC+F1-HSMS-WP	**Water**							

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R2682595								
WG1736836-4 DUP		**L1349512-1**						
Acetone		<0.020	<0.020	RPD-NA	mg/L	N/A	30	28-AUG-13
Bromodichloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Bromoform		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Bromomethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-AUG-13
Carbon disulfide		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Carbon Tetrachloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Chlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Chloroethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-AUG-13
Chloroform		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Chloromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-AUG-13
Dibromochloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,2-Dibromoethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,2-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,3-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,4-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Dichlorodifluoromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-AUG-13
1,1-dichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,2-Dichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,1-dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
cis-1,2-Dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
trans-1,2-Dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Dichloromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	28-AUG-13
1,2-Dichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
cis-1,3-Dichloropropene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
trans-1,3-Dichloropropene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
2-Hexanone (Methyl butyl ketone)		<0.020	<0.020	RPD-NA	mg/L	N/A	30	28-AUG-13
MEK		<0.020	<0.020	RPD-NA	mg/L	N/A	30	28-AUG-13
MIBK		<0.020	<0.020	RPD-NA	mg/L	N/A	30	28-AUG-13
MTBE		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Styrene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,1,1,2-Tetrachloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,1,2,2-Tetrachloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Tetrachloroethene		<0.00050	<0.00050		mg/L			28-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R2682595								
WG1736836-4 DUP		**L1349512-1**						
Tetrachloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,1,1-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
1,1,2-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Trichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	28-AUG-13
Trichlorofluoromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	28-AUG-13
Vinyl Chloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	50	28-AUG-13
WG1736836-2 LCS								
Acetone			105.7		%		70-130	28-AUG-13
Bromodichloromethane			107.3		%		70-130	28-AUG-13
Bromoform			109.3		%		70-130	28-AUG-13
Bromomethane			106.1		%		60-140	28-AUG-13
Carbon disulfide			103.9		%		70-130	28-AUG-13
Carbon Tetrachloride			104.1		%		70-130	28-AUG-13
Chlorobenzene			106.8		%		70-130	28-AUG-13
Chloroethane			105.1		%		60-140	28-AUG-13
Chloroform			106.4		%		70-130	28-AUG-13
Chloromethane			104.6		%		60-140	28-AUG-13
Dibromochloromethane			107.8		%		70-130	28-AUG-13
1,2-Dibromoethane			110.0		%		70-130	28-AUG-13
1,2-Dichlorobenzene			106.2		%		70-130	28-AUG-13
1,3-Dichlorobenzene			105.0		%		70-130	28-AUG-13
1,4-Dichlorobenzene			105.9		%		70-130	28-AUG-13
Dichlorodifluoromethane			102.3		%		60-140	28-AUG-13
1,1-dichloroethane			105.7		%		70-130	28-AUG-13
1,2-Dichloroethane			107.9		%		70-130	28-AUG-13
1,1-dichloroethene			103.8		%		70-130	28-AUG-13
cis-1,2-Dichloroethene			106.0		%		70-130	28-AUG-13
trans-1,2-Dichloroethene			104.9		%		70-130	28-AUG-13
Dichloromethane			106.0		%		70-130	28-AUG-13
1,2-Dichloropropane			107.7		%		70-130	28-AUG-13
cis-1,3-Dichloropropene			110.0		%		70-130	28-AUG-13
trans-1,3-Dichloropropene			110.6		%		70-130	28-AUG-13
2-Hexanone (Methyl butyl ketone)			110.9		%		70-130	28-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R2682595								
WG1736836-2 LCS								
MEK			112.1		%		70-130	28-AUG-13
MIBK			107.4		%		70-130	28-AUG-13
MTBE			106.8		%		70-130	28-AUG-13
Styrene			105.8		%		70-130	28-AUG-13
1,1,1,2-Tetrachloroethane			105.2		%		70-130	28-AUG-13
1,1,2,2-Tetrachloroethane			111.9		%		70-130	28-AUG-13
Tetrachloroethene			103.1		%		70-130	28-AUG-13
1,1,1-Trichloroethane			104.4		%		70-130	28-AUG-13
1,1,2-Trichloroethane			108.4		%		70-130	28-AUG-13
Trichloroethene			104.9		%		70-130	28-AUG-13
Trichlorofluoromethane			103.3		%		60-140	28-AUG-13
Vinyl Chloride			104.6		%		60-140	28-AUG-13
WG1736836-1 MB								
Acetone			<0.020		mg/L		0.02	28-AUG-13
Bromodichloromethane			<0.00050		mg/L		0.0005	28-AUG-13
Bromoform			<0.00050		mg/L		0.0005	28-AUG-13
Bromomethane			<0.0010		mg/L		0.001	28-AUG-13
Carbon disulfide			<0.00050		mg/L		0.0005	28-AUG-13
Carbon Tetrachloride			<0.00050		mg/L		0.0005	28-AUG-13
Chlorobenzene			<0.00050		mg/L		0.0005	28-AUG-13
Chloroethane			<0.0010		mg/L		0.001	28-AUG-13
Chloroform			<0.00050		mg/L		0.0005	28-AUG-13
Chloromethane			<0.0010		mg/L		0.001	28-AUG-13
Dibromochloromethane			<0.00050		mg/L		0.0005	28-AUG-13
1,2-Dibromoethane			<0.00050		mg/L		0.0005	28-AUG-13
1,2-Dichlorobenzene			<0.00050		mg/L		0.0005	28-AUG-13
1,3-Dichlorobenzene			<0.00050		mg/L		0.0005	28-AUG-13
1,4-Dichlorobenzene			<0.00050		mg/L		0.0005	28-AUG-13
Dichlorodifluoromethane			<0.0010		mg/L		0.001	28-AUG-13
1,1-dichloroethane			<0.00050		mg/L		0.0005	28-AUG-13
1,2-Dichloroethane			<0.00050		mg/L		0.0005	28-AUG-13
1,1-dichloroethene			<0.00050		mg/L		0.0005	28-AUG-13
cis-1,2-Dichloroethene			<0.00050		mg/L		0.0005	28-AUG-13
trans-1,2-Dichloroethene			<0.00050		mg/L		0.0005	28-AUG-13

Quality Control Report

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R2682595								
WG1736836-1 MB								
Dichloromethane			<0.00050		mg/L		0.0005	28-AUG-13
1,2-Dichloropropane			<0.00050		mg/L		0.0005	28-AUG-13
cis-1,3-Dichloropropene			<0.00050		mg/L		0.0005	28-AUG-13
trans-1,3-Dichloropropene			<0.00050		mg/L		0.0005	28-AUG-13
2-Hexanone (Methyl butyl ketone)			<0.020		mg/L		0.02	28-AUG-13
MEK			<0.020		mg/L		0.02	28-AUG-13
MIBK			<0.020		mg/L		0.02	28-AUG-13
MTBE			<0.00050		mg/L		0.0005	28-AUG-13
Styrene			<0.00050		mg/L		0.0005	28-AUG-13
1,1,1,2-Tetrachloroethane			<0.00050		mg/L		0.0005	28-AUG-13
1,1,2,2-Tetrachloroethane			<0.00050		mg/L		0.0005	28-AUG-13
Tetrachloroethene			<0.00050		mg/L		0.0005	28-AUG-13
1,1,1-Trichloroethane			<0.00050		mg/L		0.0005	28-AUG-13
1,1,2-Trichloroethane			<0.00050		mg/L		0.0005	28-AUG-13
Trichloroethene			<0.00050		mg/L		0.0005	28-AUG-13
Trichlorofluoromethane			<0.0010		mg/L		0.001	28-AUG-13
Vinyl Chloride			<0.00050		mg/L		0.0005	28-AUG-13
Surrogate: 1,4-Difluorobenzene (SS)			101.5		%		70-130	28-AUG-13

Quality Control Report

Workorder: L1349512 Report Date: 30-AUG-13

Client: CONCENTRIC ASSOCIATES INTERNATIONAL INCORPORATED
5310 Canotek Unit 30
Ottawa ON K1J 9N5
Contact: ANDREA JOHNSON

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
DLM	Detection Limit Adjusted For Sample Matrix Effects
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
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.

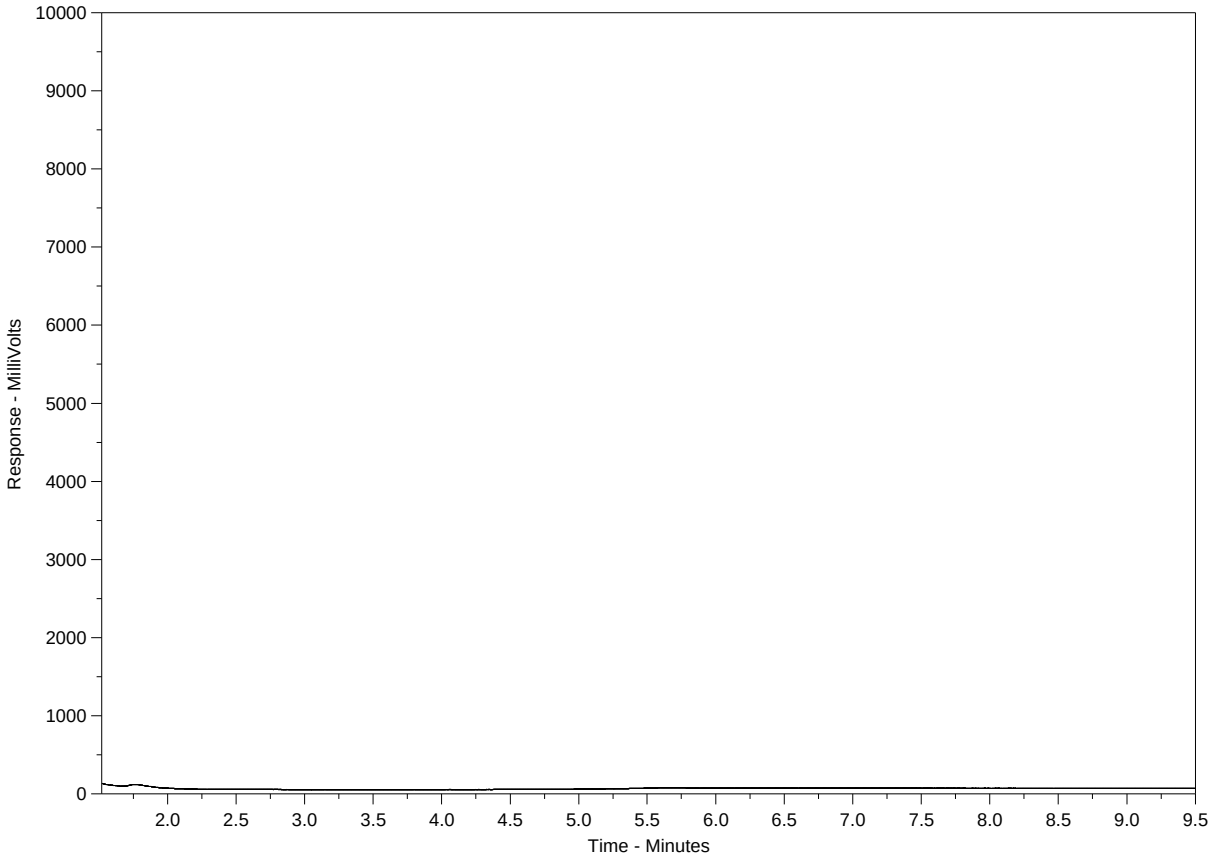
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

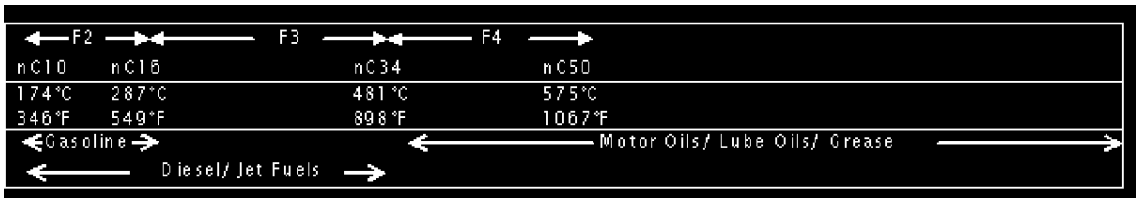
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-1
Client Sample ID: S107190813301





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

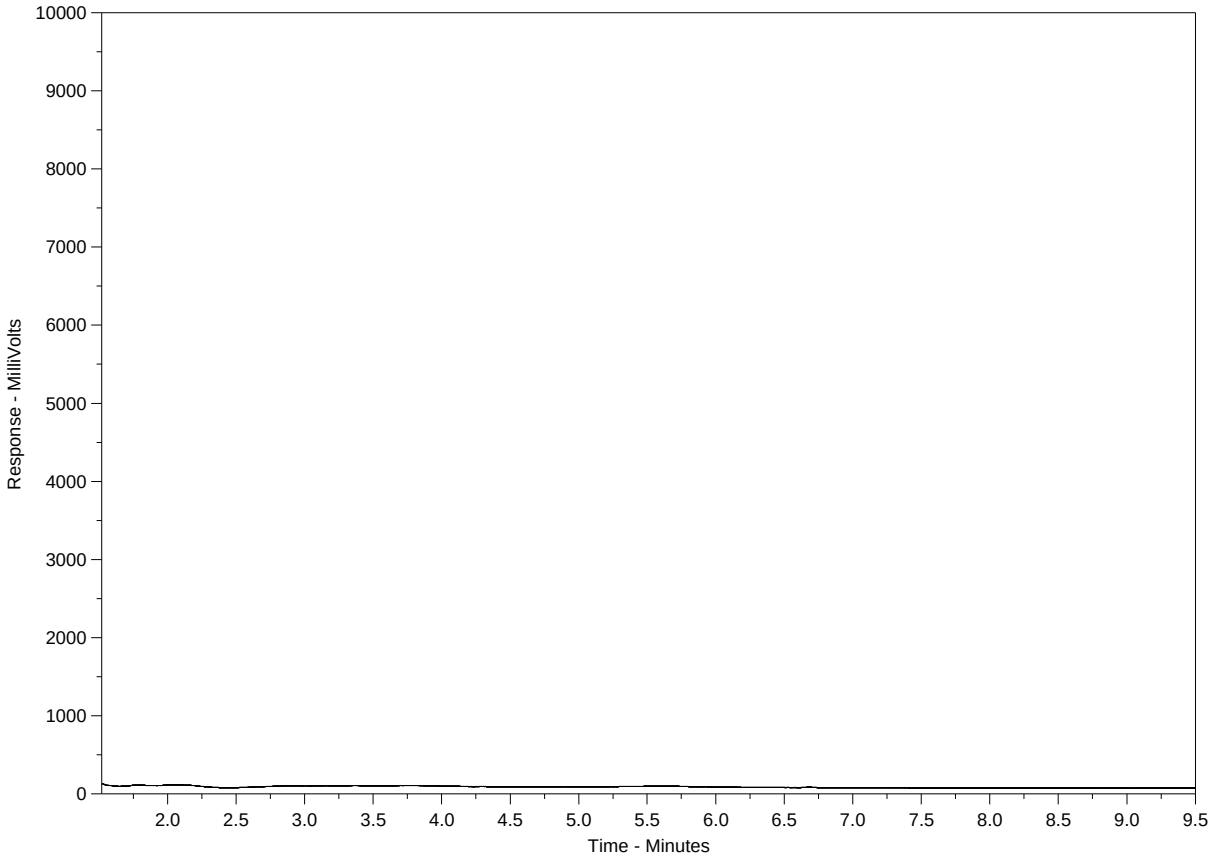
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

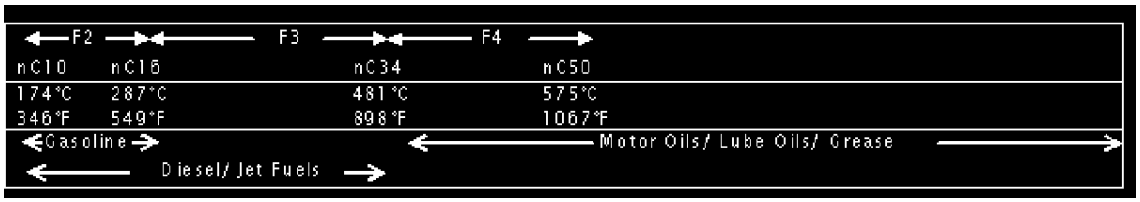
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-2
Client Sample ID: S107190813302





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

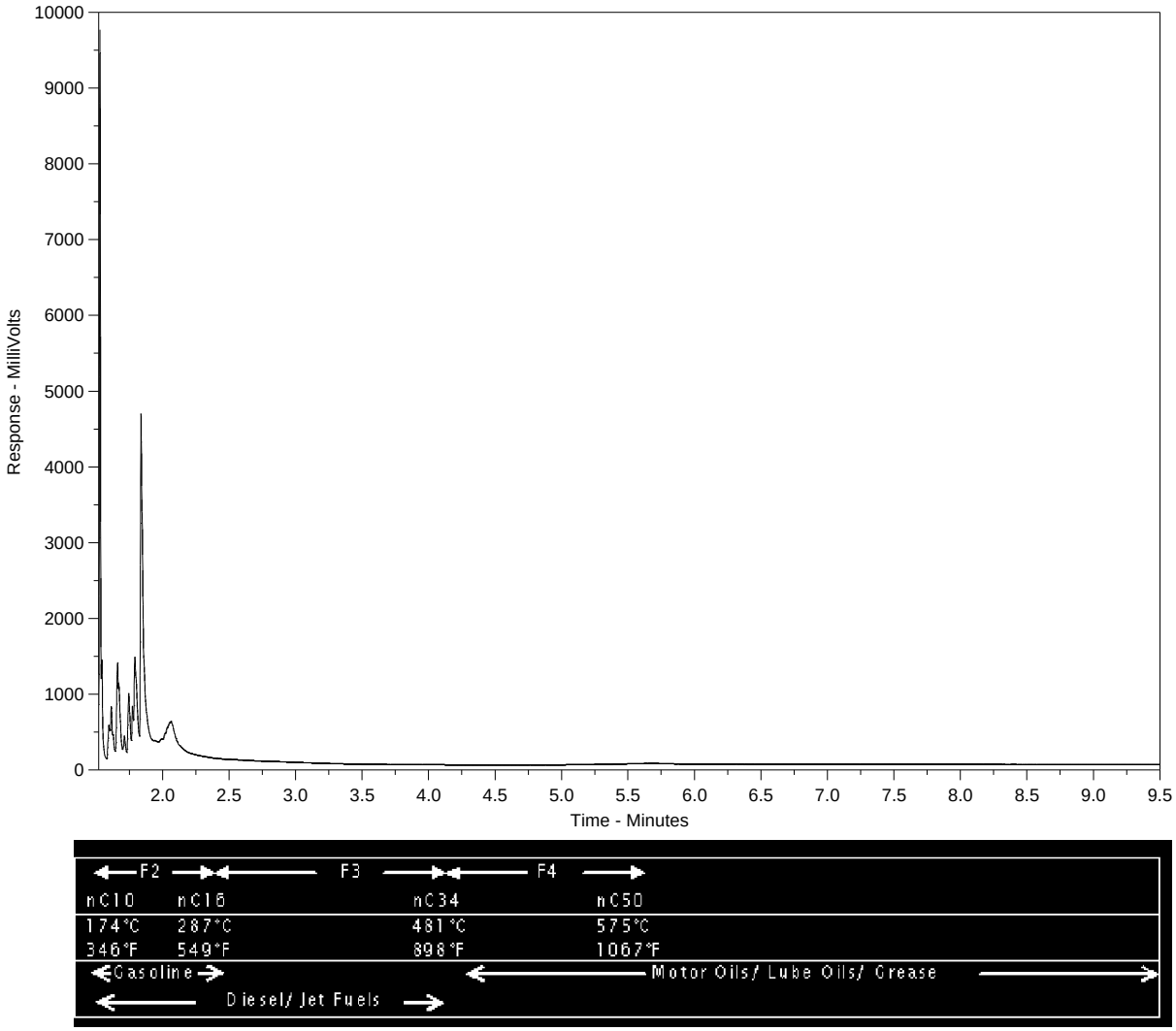
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-3
Client Sample ID: S107190813303



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

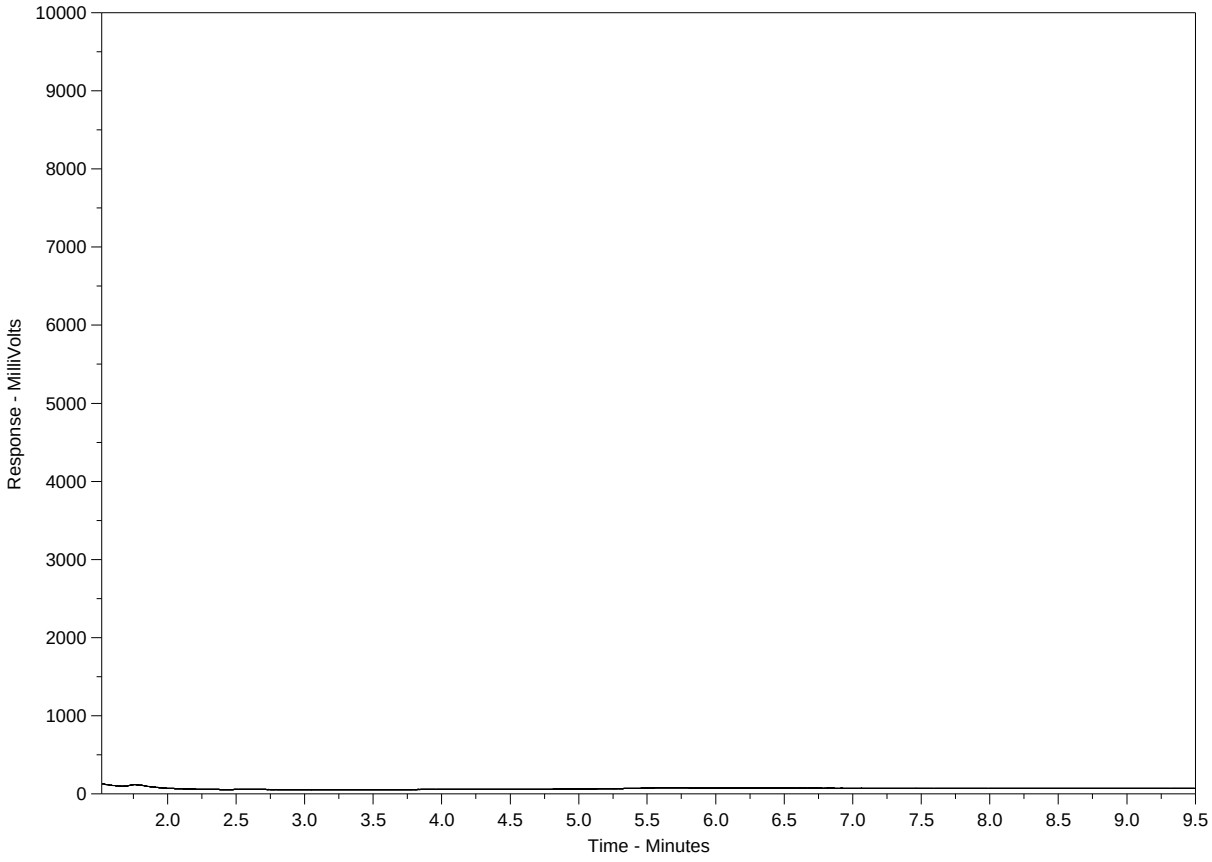
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

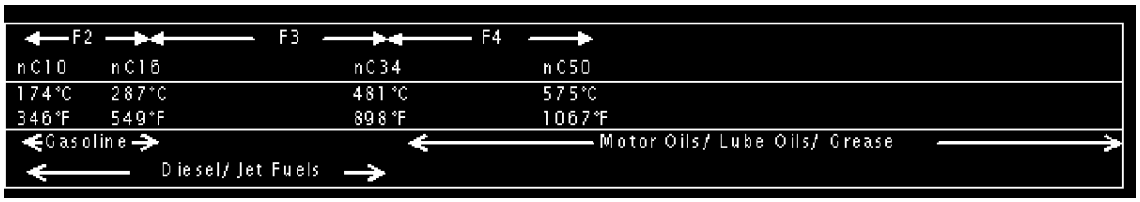
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-4
Client Sample ID: S107190813304





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

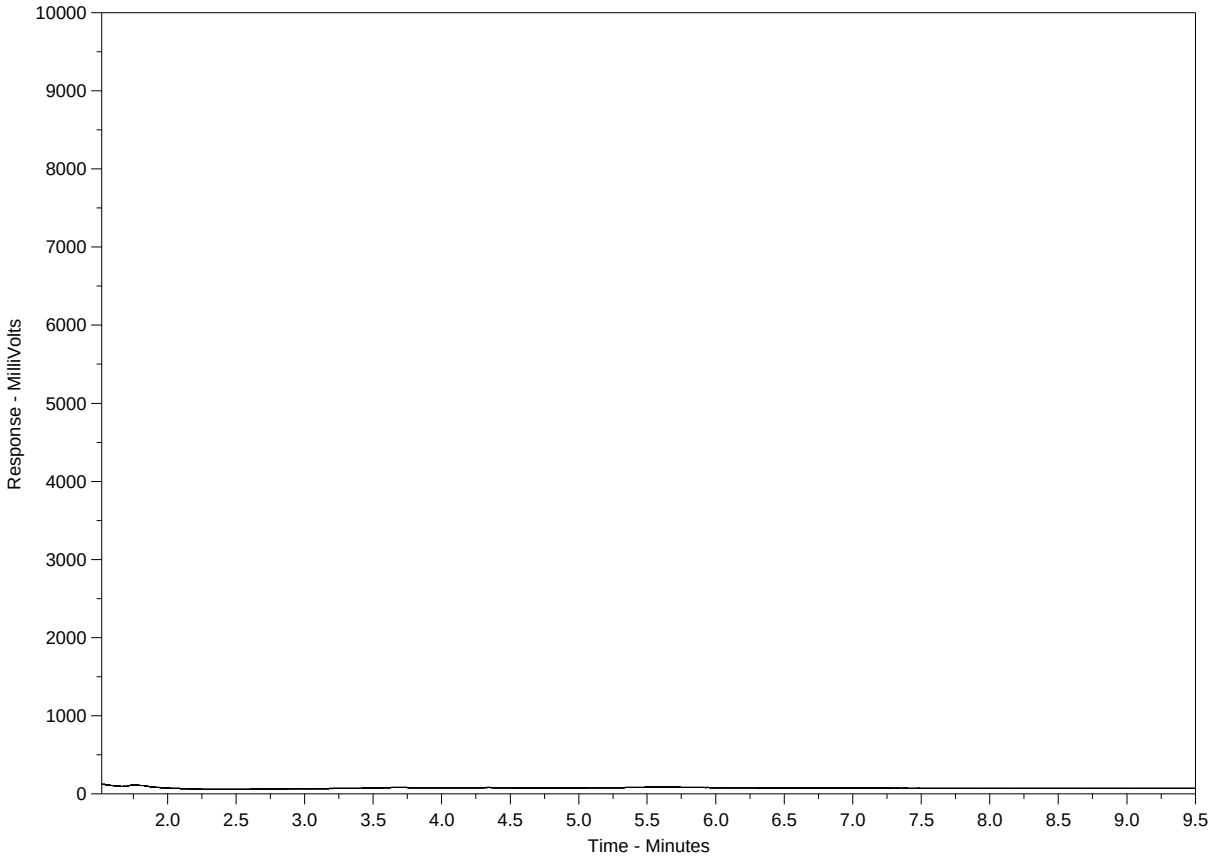
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

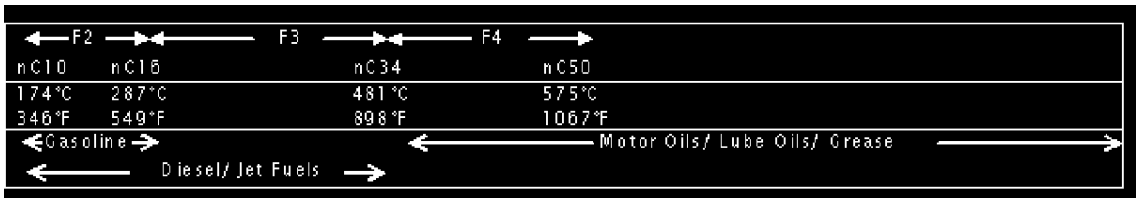
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-5
Client Sample ID: S107190813305





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

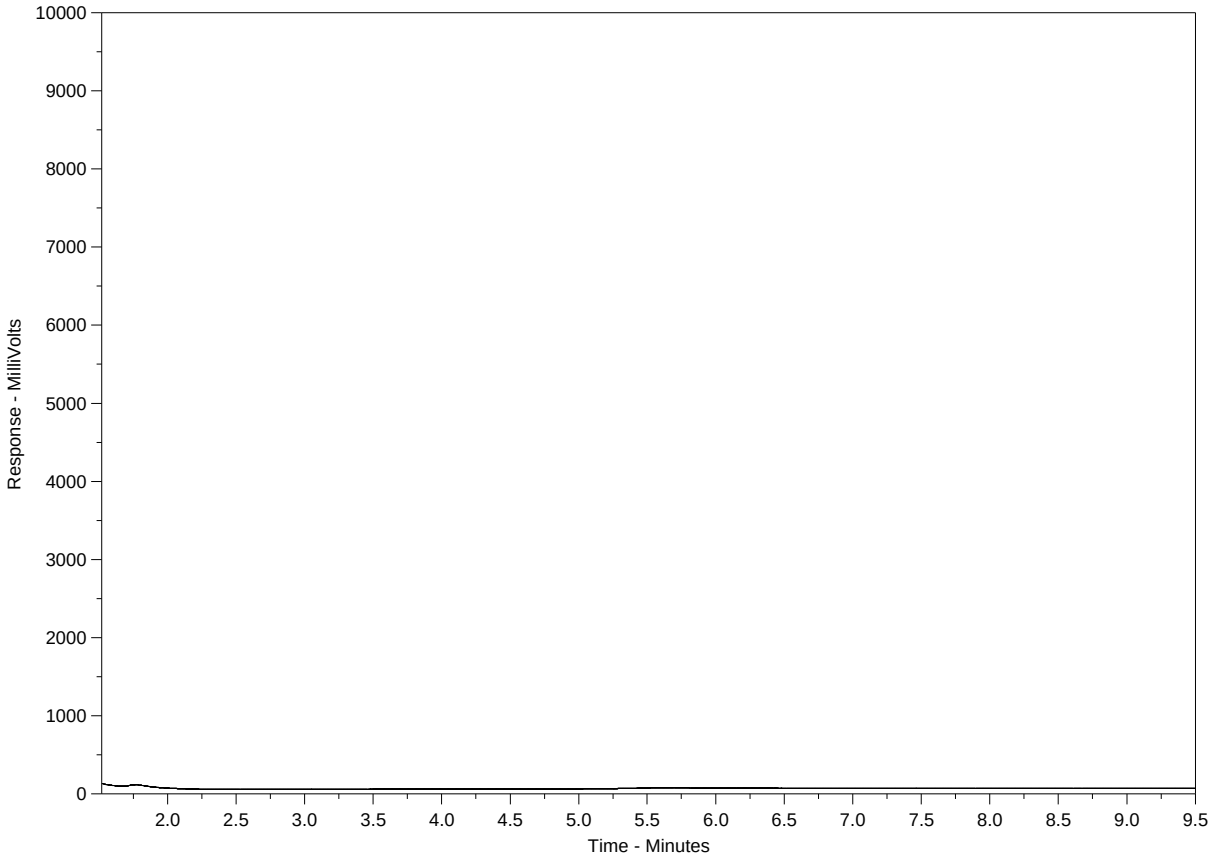
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

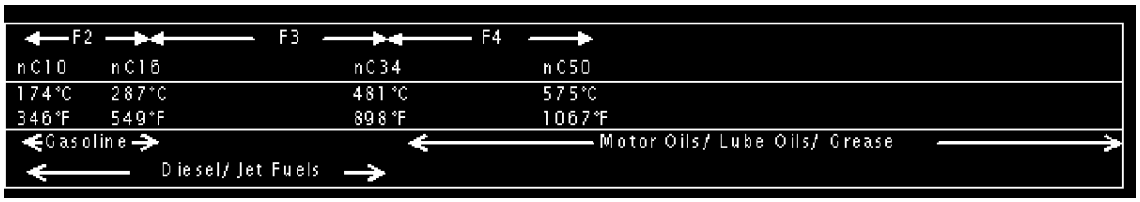
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-6
Client Sample ID: S107190813306





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

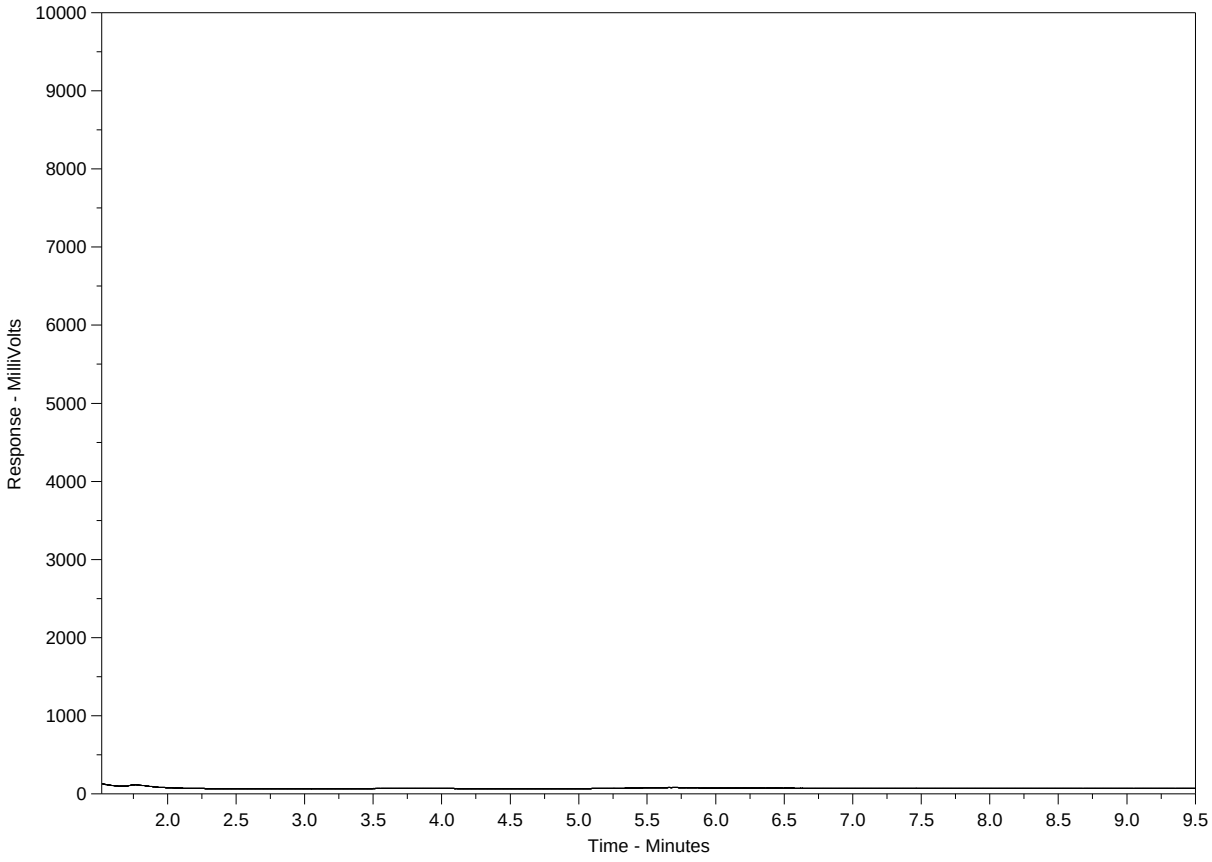
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

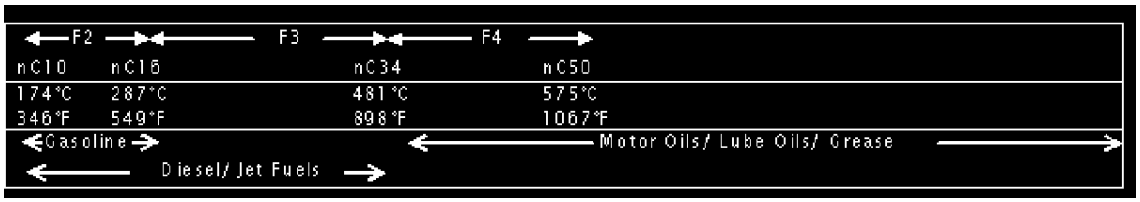
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-7
Client Sample ID: S107190813307





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

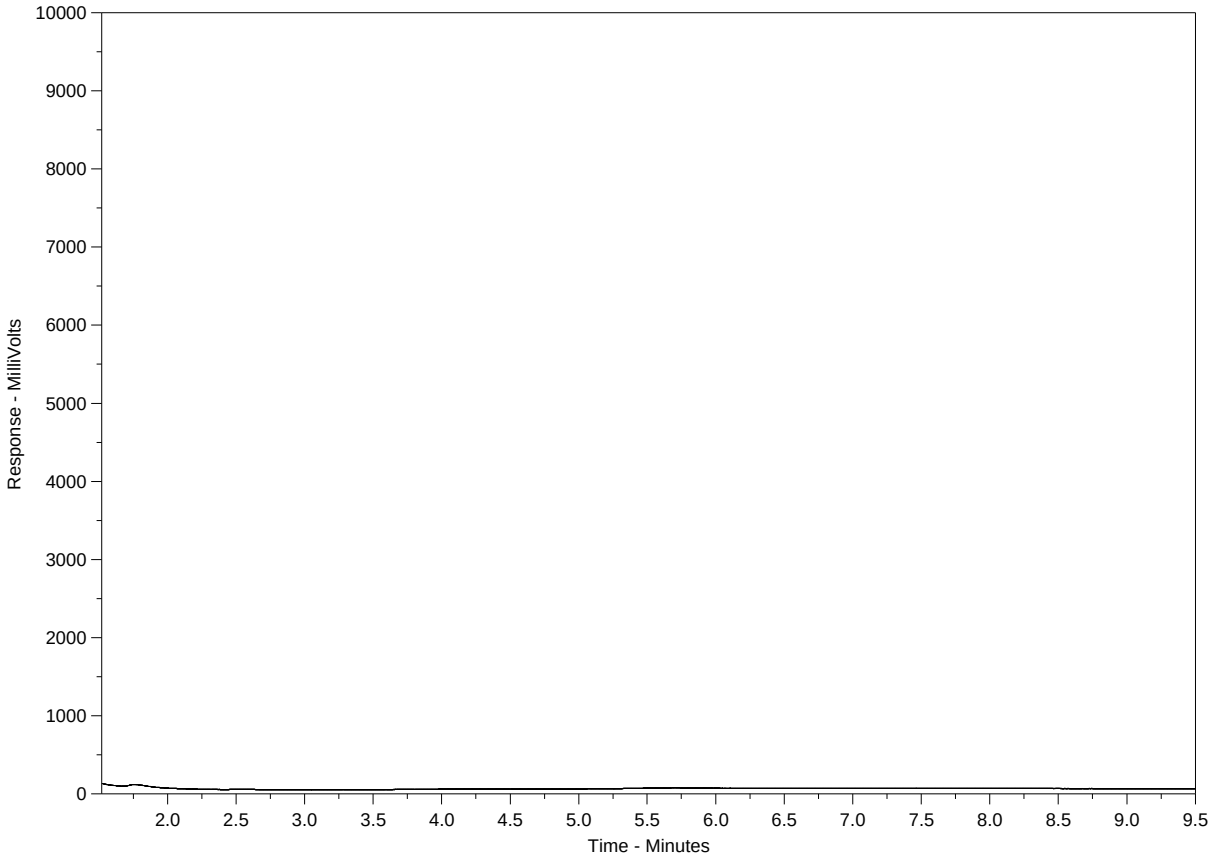
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

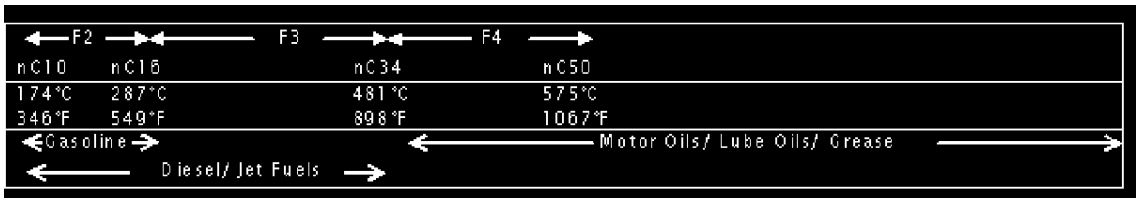
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-8
Client Sample ID: S107190813308





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

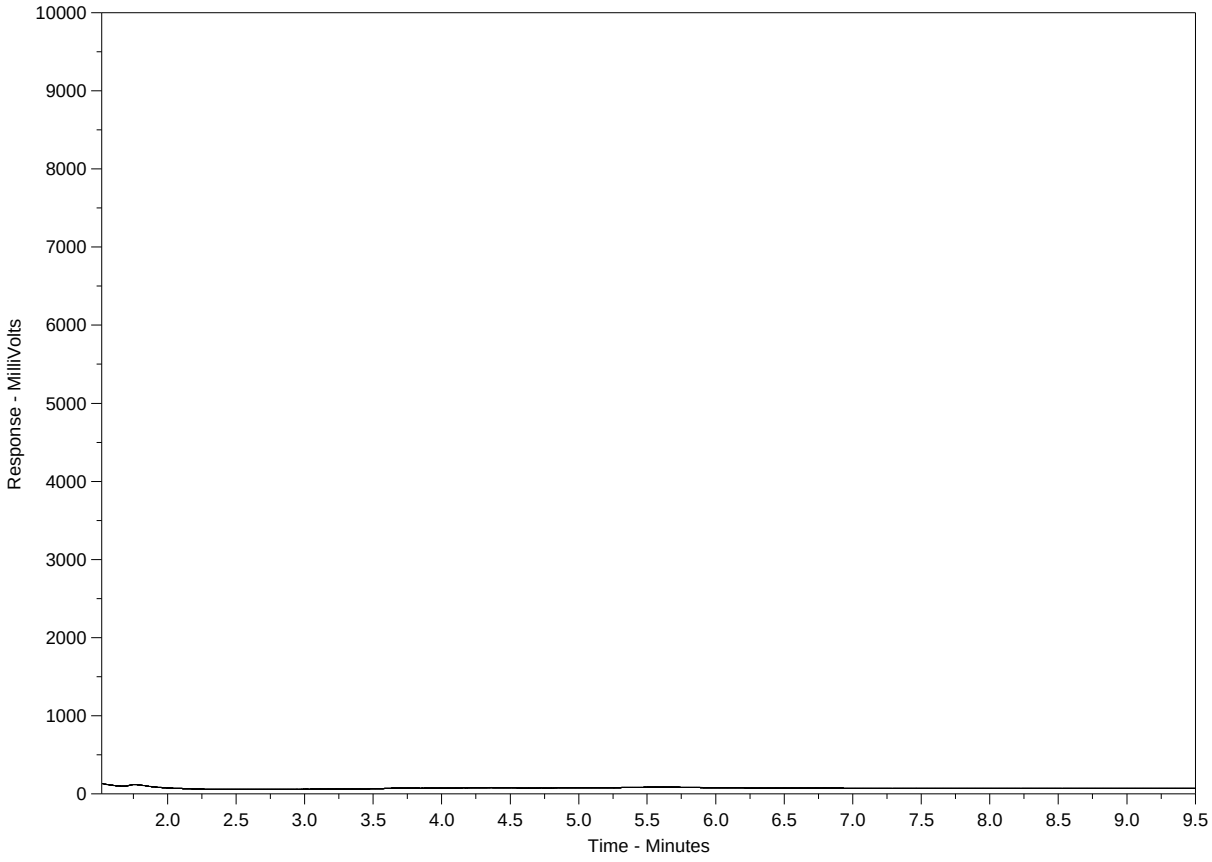
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

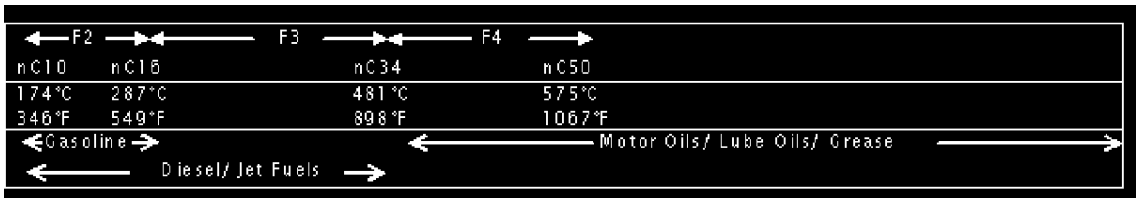
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-9
Client Sample ID: S107190813309





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

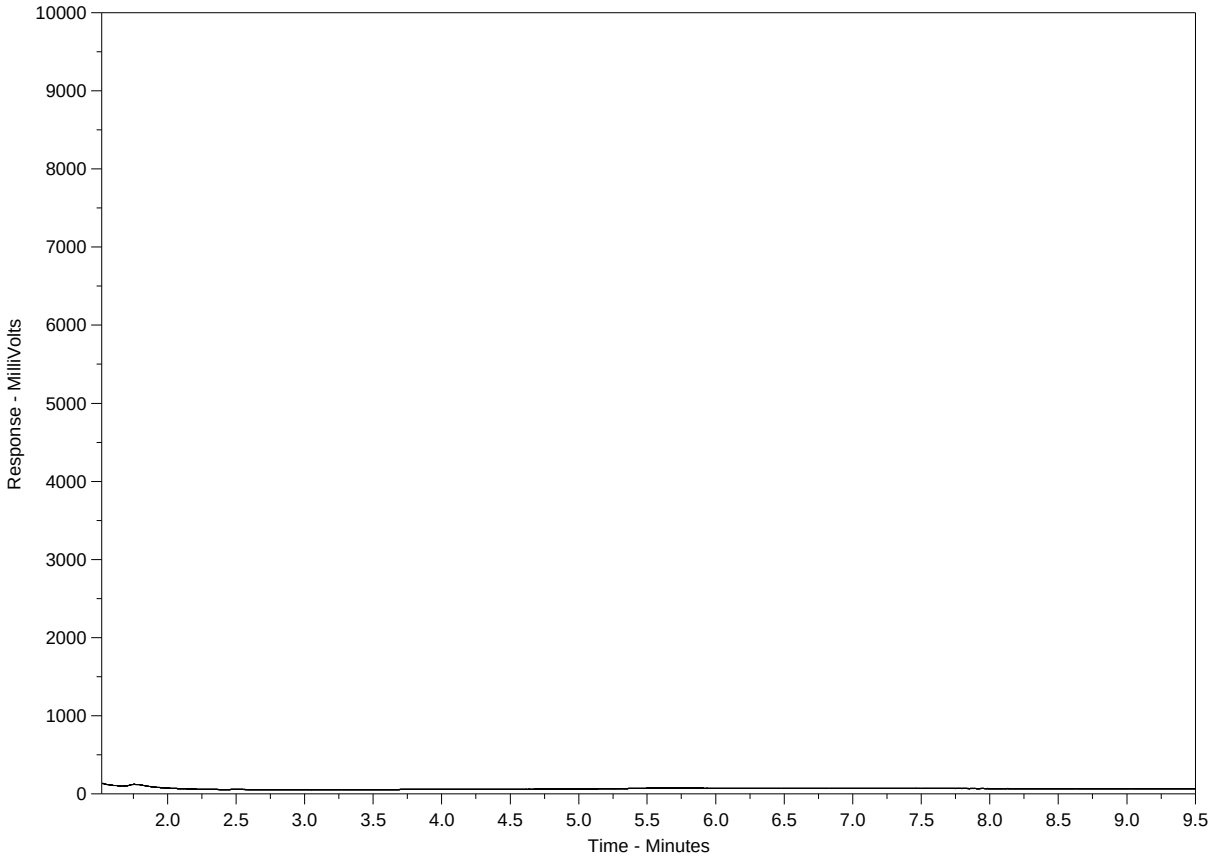
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

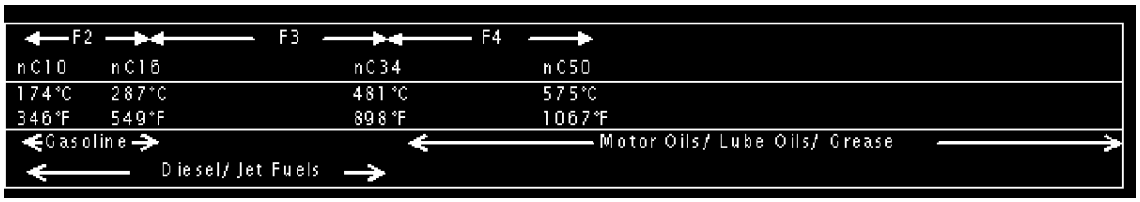
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-10
Client Sample ID: S107190813310





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

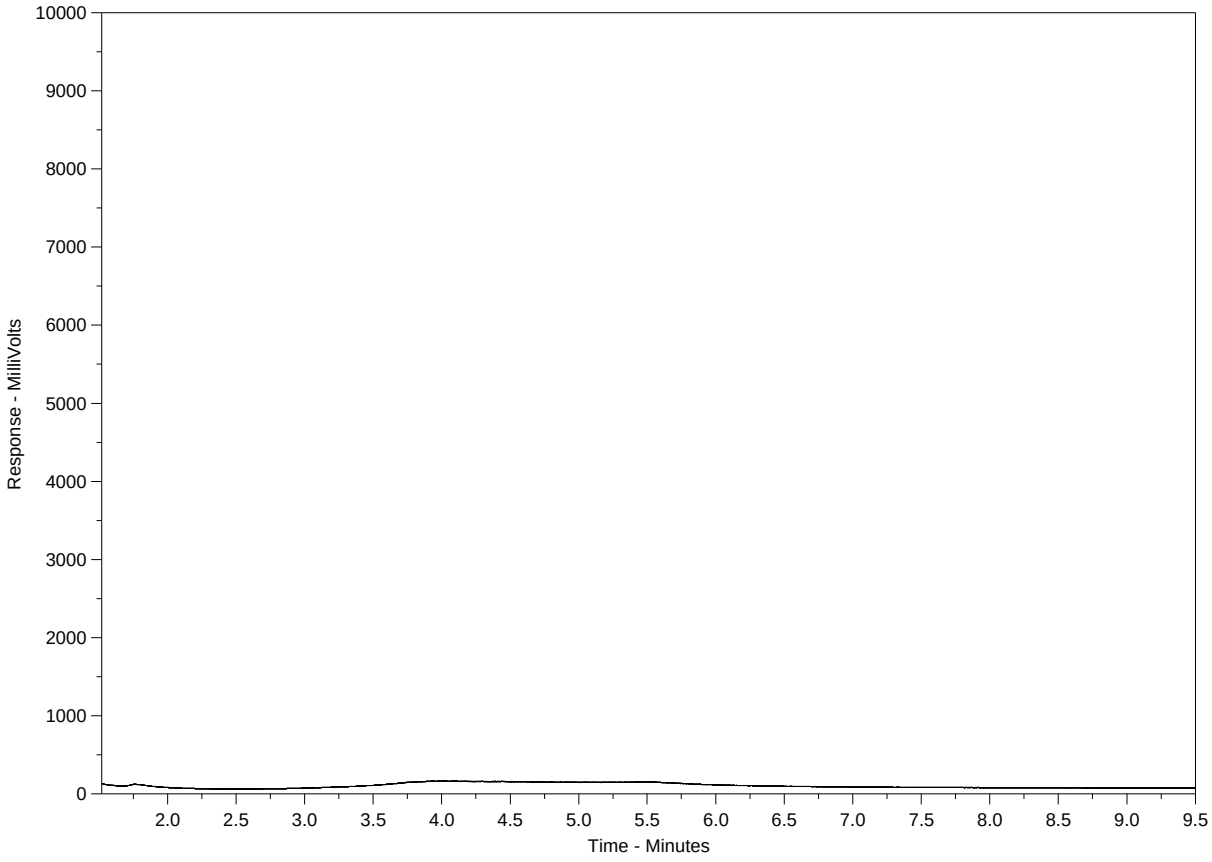
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

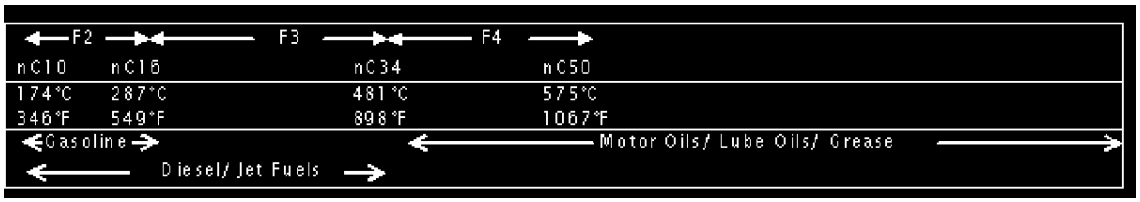
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-11
Client Sample ID: S107190813311





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

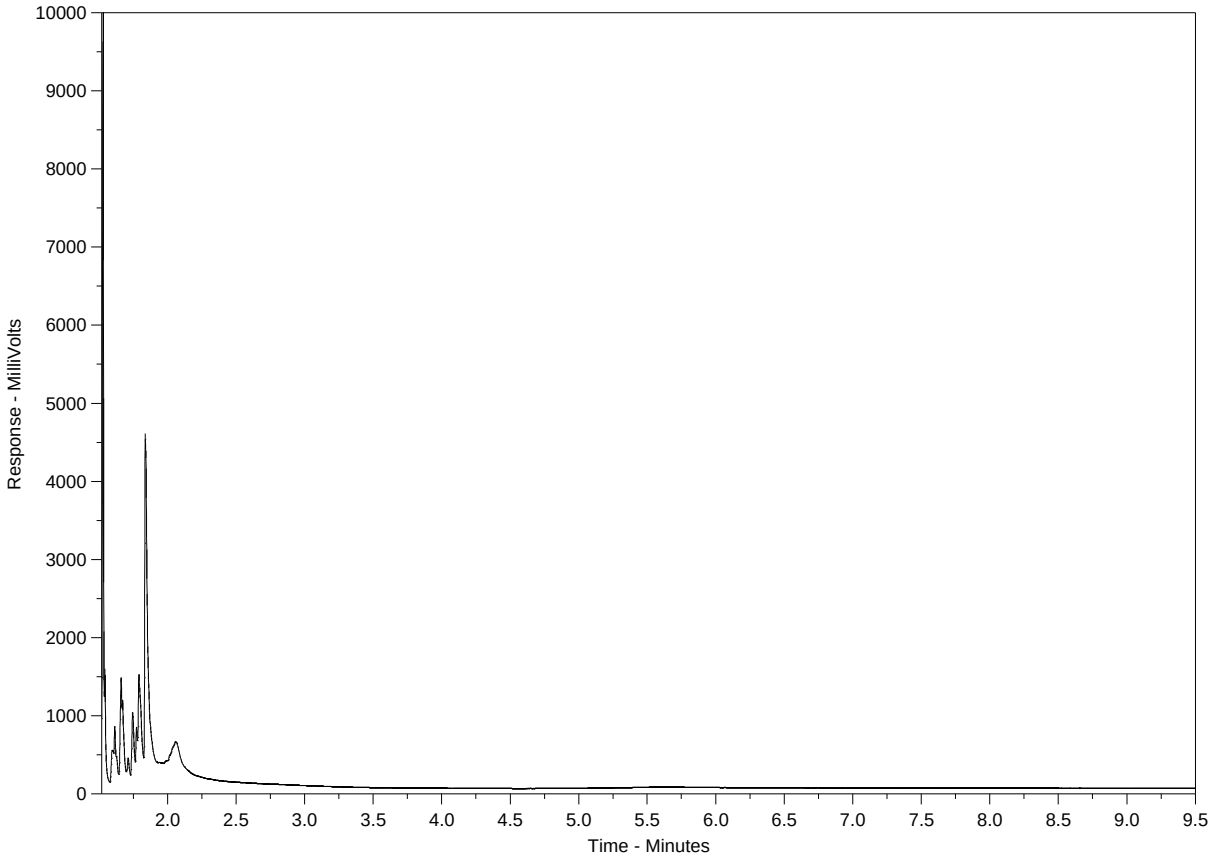
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

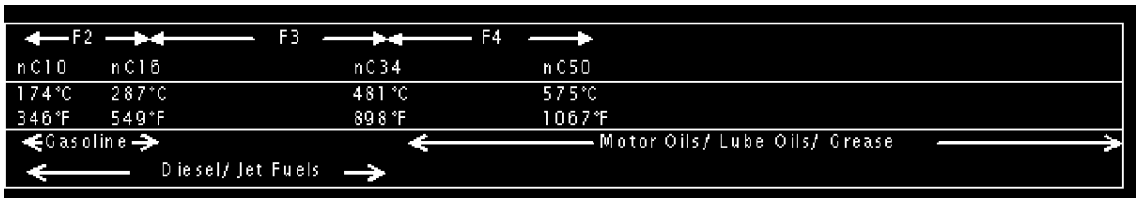
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-12
Client Sample ID: S107190813312





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

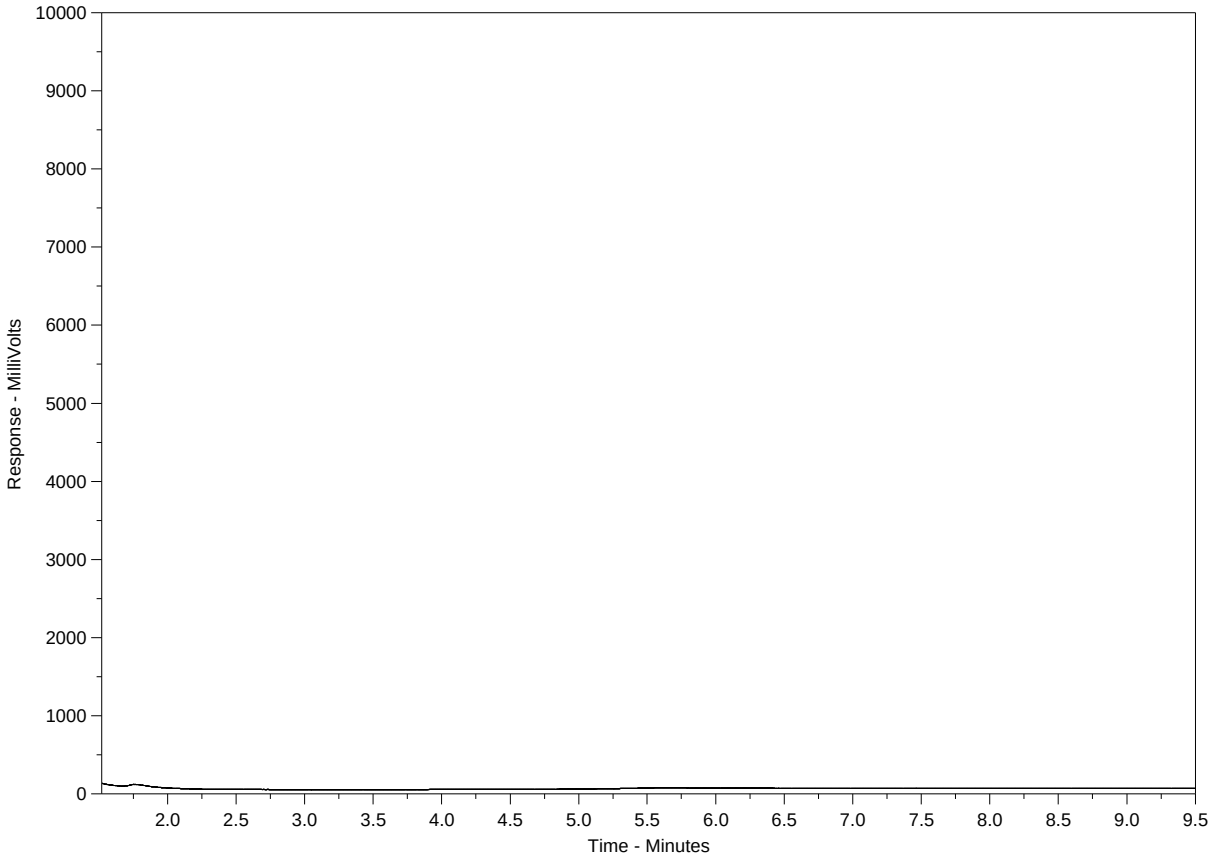
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

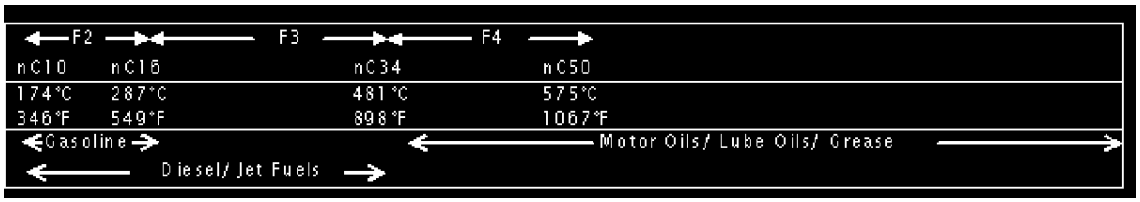
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L1349512-14
Client Sample ID: S107190813314





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

10-309401

Ch L1349512-COFC

ALS Environmental

Report To		Report Format / Distribution		Service Request: (Rush subject to availability - Contact ALS to confirm TAT)	
Company:	Concentric	Standard: ✓	Other (specify):	X	Regular (Standard Turnaround Times - Business Days)
Contact:	Andrea Johnson	Select: PDF ✓	Excel Digital Fax		Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address:	Unit 30 5310 Canotek Rd Ottawa ON K1J 9N5	Email 1:	andreae@concentricerg.com		Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
		Email 2:			Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone:	613-824-8900 Fax 613-824-8901			Analysis Request	
Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	Client / Project Information		(Indicate Filtered or Preserved, F/P)	
	Copy of Invoice with Report? (circle) Yes or No	Job #:	13-5107-E		
Company:		PO / AFE:			
Contact:		LSD:			
Address:					
Phone:	Fax:	Quote #:	Q40527		
Lab Work Order # (lab use only)		ALS Contact:	Sampler:		

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PHCs F1-F4	BTEX	VOCs	PAHs	PCBs	Metals	Number of Containers
	S107190813301	19-08-13	am	GW	✓	✓	X	✓		X	7
	S107190813302				✓	✓		X			6
	S107190813303				✓	✓	X			X	5
	S107190813304				✓	✓	X	X		X	7
	S107190813305				✓	✓	X	X	X		8
	S107190813306				✓	✓	X	X	X		8
	S107190813307				✓	✓		X		X	7
	S107190813308				✓	✓	X			X	6
	S107190813309				✓	✓	X	X		X	7
	S107190813310				✓	✓	X	X		X	7
	S107190813311				✓	X				X	6
	S107190813312				✓	X				X	6

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
Andrea Johnson	Aug 19/13	11:15	TT	19/8/2013	11:15am	9 °C				

ALS Environmental

Chain

L1349512-COFC

10- 309400

Page 2 of 2

Report To	Report Format / Distribution	Service Request: (Rush subject to availability - Contact ALS to confirm TAT)
Company:	Standard: Other (specify):	Regular (Standard Turnaround Times - Business Days)
Contact:	Select: PDF Excel Digital Fax	Priority(2-4 Business Days)-50% surcharge - Contact ALS to confirm TAT
Address: See pg 1	Email 1:	Emergency (1-2 Business Days)-100% Surcharge - Contact ALS to confirm TAT
	Email 2:	Same Day or Weekend Emergency - Contact ALS to confirm TAT
Phone: Fax:		

Invoice To	Same as Report ? (circle) Yes or No (if No, provide details)	Client / Project Information
	Copy of Invoice with Report? (circle) Yes or No	Job #:
Company:		PO / AFE:
Contact:		LSD:
Address:		
Phone:	Fax:	Quote #:

Lab Work Order # (lab use only)		ALS Contact:	Sampler:

Sample #	Sample Identification (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	PAHs	RBS	AHCs Fr FY	BTEX	VOCs	Number of Containers
	S107190813313	19-08-13	am	GW	x	x				1
	S107190813314	19-08-13	am	GW	x	x	x	x	x	9

Analysis Request (Indicate Filtered or Preserved, F/P)

Special Instructions / Regulation with water or land use (CCME- Freshwater Aquatic Life/BC CSR-Commercial/AB Tier 1-Natural/ETC) / Hazardous Details

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY.

By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

SHIPMENT RELEASE (client use)			SHIPMENT RECEPTION (lab use only)				SHIPMENT VERIFICATION (lab use only)			
Released by:	Date:	Time:	Received by:	Date:	Time:	Temperature:	Verified by:	Date:	Time:	Observations: Yes / No ? If Yes add SIF
				19/8/2019	11:15AM	9 °C				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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