



Addendum to:
Phase II Environmental Site Assessment



*5640 Bank Street, 7107 Marco Street, and 7041 Mitch
Owens Road, City of Ottawa, Ontario, July 15th, 2013,
updated September 10th, 2014*

Ref: BAE-1453

May 26th, 2015

Prepared For

Alium Investments (Greely) Ltd.

Prepared By

BAE & Associates Environmental Inc.

18 Parkview Ave.,

Oro Medonte, ON L0L 2E0

Phone 705 715 1881

envsol@rogers.com

Providing Environmental Solutions Since 1997!



BAE & Associates Environmental Inc.

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18 Parkview Avenue, Oro Medonte, ON L0L2E0

Email envsol@rogers.com

Phone 705 715 1881

Alium Investments (Greely) Ltd.
3338 Dufferin Street
Toronto, ON, M6A 3A4
And,
MOECC Ottawa District Office
2430 Don Reid Drive
Ottawa, ON, K1H 1E1
Attention: Charles Goulet, P. Eng.
District Engineer

Addendum to: “Phase II Environmental Site Assessment (ESA) at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario, July 15th, 2013, updated September 10th, 2014”

1.0 Introduction

BAE & Associates Environmental (BAE) was retained by Alium Investments (Greely) Ltd. to complete an Addendum to the “Phase II Environmental Site Assessment (ESA) at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario, July 15th, 2013, updated September 10th, 2014”. The Phase II ESA and previous Phase I ESA were prepared to support the redevelopment of the site. These reports and subsequent data completed were reviewed by the MOECC. Following several rounds of communications and recommendations, the MOECC, Alium Investments (Greely) Ltd. and BAE have come to an agreement to ensure all potential environmental concerns are addressed. As per MOECC recommendations, BAE installed additional monitoring wells and carried out supplemental onsite groundwater sampling and analyses on these and previously installed monitoring wells. This was done to analyse the onsite groundwater from which residential dwellings along the north side of Marco Street potentially draw potable water. Groundwater quality data was obtained from as close as possible to the three metre corridor contiguous to the south property line of the residences on the north side of Marcus Street. It should be noted that a Hydrogeological Assessment determined that the groundwater flows in a northwest direction, away from the Marcus Street toward Mitch Owens Road.

2.0 Phase II ESA (Summary)

The following is a summary of the previously submitted Phase II ESA.

BAE and Associates Environmental Inc. (BAE) were retained by Alium Investments Ltd. to undertake a Phase II Environmental Site Assessment (ESA) at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario. These investigations were conducted to reveal current environmental conditions for the subject property. A Phase I ESA completed by BAE had determined that a significant amount of fill had been brought onsite and thus a Phase II ESA was recommended.



As there was no requirement for the filing of a Record of Site Condition, the current investigation was conducted generally in accordance with Part XV.1 of the Environmental Protection Act and Ontario Regulation 153/04 (O. Reg. 153/04) - as amended. All analysis was performed in accordance with O. Reg. 153/04 and compared to Part XV.1 of the Environmental Protection Act – Table 3: Full Depth Generic Site Condition Standards in a Non-Potable Groundwater Condition (July 2011) Criteria. The specific requirements for carrying out a Phase II ESA are set out in Part VIII of Ontario Regulation 153/04 - as amended by O. Reg. 511 (July, 2011).

The subject 13 hectare (32 acre) Site is located on an irregular parcel of land situated at the northern periphery of the Community of Greely, at the southwest corner of the intersection of Bank Street and Mitch Owens Road. The northern portion of the Site has an approximate frontage of 653m on the south side of Mitch Owens Road. The western portion of the Site has an approximate frontage of 200m on the east side of Old Prescott Road. The eastern portion of the Site has an approximate frontage of 150m on the west side of Bank Street. The southern portion of the Site has an approximate frontage of 35m on the north side of Marco Street and 720m backing onto the back of single family residential houses located along Marco Street.

The Site is currently vacant, and was previously utilized as a gravel pit (below water table in the central part of the site). It is understood and was verified by Gib Patterson that the gravel pit had been backfilled with native soil derived from pond excavations at a site near Airport Parkway and Hunt Club Road to the north. The backfilled area of the site has no significant environmental threat to neighbouring residential properties. The elevation of the onsite fill area averages 105 masl while the average elevation of the adjacent residential properties is 111 masl. This confirms that the fill area is 6+ metres below the residential properties as well as being an average of 60 metres north and away from the these properties. There are no significant environmental concerns from the current onsite operations.

The Phase II ESA was conducted to ascertain the surficial and subsurface conditions and to assess the need for further investigations and primarily to confirm that the imported fill was not impacted and that adjacent properties were not affected by the placement of this fill. Seven preliminary boreholes were advanced up to a depth of 15m below grade level (BGL) using a CME 75 mobile mounted drill rig with a 25cm diameter, hollow stem auger and split-spoon sampler. Following a recommendation by the MOE, six additional boreholes were advanced with sampling and analyses undertaken in August of 2014.

Representative samples were submitted for independent chemical analyses of the Metal, Petroleum Hydrocarbon (PHC), Sodium Adsorption Ratio (SAR) and Volatile Organic Compound (VOC) Parameters. All analysis results met applicable MOE/EPA Criteria.

As there was no requirement for the filing of a Record of Site Condition, the current investigation was conducted generally in accordance with Part XV.1 of the Environmental Protection Act and Ontario Regulation 153/04 (O. Reg. 153/04) - as amended. It is the opinion of BAE that the current environmental assessment performed



is consistent with and meets MOE/EPA Criteria. The Environmental Site Assessment results do not suggest any chemical contamination associated with the imported fill or current or historical activities at the subject property and has determined that there is no evidence of any offsite impact, or is likely to impact in the future, any adjacent public Right of Ways at levels in excess of applicable criteria. No further environmental investigations are recommended at this time.

3.0 Additional Investigations March - May 2015

BAE obtained additional onsite groundwater samples on March 3rd, 2015, from five previously installed monitoring wells - MW1501, MW1502, MW1503, MW1504 and MW1505. To satisfy additional requirements presented by the MOECC, two supplementary monitoring wells were advanced and installed along the bottom of the steep south slope as close to the neighbouring properties as possible in May of 2015. Following development, the supplementary monitoring wells – MW1506 and MW1507 were developed and sampled on May 15th, 2015 with the groundwater samples submitted for independent chemical analysis. Following are the methodology and chemical analysis results.

4.0 Methodology

As recommended by the MOECC, additional representative chemical analysis was completed on the groundwater for the parameters of concern previously identified—Metals, F1-4 PHCs and VOCs. Two additional boreholes were advanced below the anticipated groundwater level on the accessible south portion of the site. Both of these boreholes were developed as groundwater monitoring wells.

Both additional boreholes were advanced to a minimum depth of 6.0mbgl below grade level (BGL) using a CME 75 mobile mounted drill rig with a 25cm diameter, hollow stem auger and split-spoon sampler. Downhole drilling equipment was decontaminated between boreholes and sampling equipment was decontaminated between sampling intervals. Soil samples were collected from each borehole for the purpose of subsurface characterisation and field screening. Continuous soil samples were obtained at 0.75m intervals and obtained from the split spoon. Each sample was logged with respect to nature, depth, thickness and evidence of impairment. The soil samples were placed in sterile polyethylene soil bags and labeled. The headspace vapours in each soil bag were tested for total petroleum hydrocarbon vapour concentrations using an RKL Eagle, One to Six Gas Portable Monitor and a MiniRae 3000 Portable Handheld VOC Monitor. BAE completed the final additional onsite sampling on May 15th, 2015. The locations of the previously installed and additional monitoring wells are shown below on Figure 1.

The monitoring wells were constructed using threaded 50 mm, Schedule 40 PVC pipe with slotted screen in the area of the groundwater (3.0-6.0 mbgl). Filter packs were positioned around the screen with a hydrated bentonite pellet seal located over the filter pack. Hydrated Bentonite pellets were used to fill the annular space. A bentonite seal was placed at 0.5 m below grade to the surface, surrounding the PVC well to prevent surface water from entering into the borehole. A locking well cap was installed above the surface with a lock in place.



During development and redevelopment of the monitoring wells, qualitative observations were made of watercolour, clarity, the presence or absence of any impairment indicators, hydrocarbon sheen or odours present. No concerns were identified. Following this the wells were developed by purging a minimum of ten times the standing volume of water (>20L) or until the wells were dry.

Representative groundwater samples were submitted to ALS Environmental Laboratory for independent laboratory chemical analysis of the Metals, F1-4 PHCs and VOCs parameters. Each sample was put into sterile, labelled laboratory supplied bottles. While under the care of BAE, the samples were maintained in ice-filled coolers following collection. Samples were submitted under chain-of-custody to ALS for independent chemical analysis.

All samples were completed and analyzed in accordance with the requirements of the MOE document Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act, dated 9 March 2004 and amended on 1 July 2011, including the use of laboratory supplied and preserved vials for the collection of samples for analysis of F1 fraction PHC and VOC parameters.

5.0 Additional Investigations Laboratory Chemical Analysis Results

All laboratory analysis was completed by an independent, accredited lab, ALS Laboratory Group of Richmond Hill/ Waterloo, Ontario (ALS). ALS is a CAEAL Registered and Accredited laboratory according to O. Reg. 153/04 section 47 (1) and ALS used the analytical methods as described in *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act* (MOE 2004, O. Reg. 153/04 section 47 (2)) - as amended by O.Reg. 511 (JULY, 2011). All analysis was performed in accordance with O. Reg. 153/04 and as amended by O.Reg. 511 (JULY, 2011). The following tables present the analytical results for these samples. All analysis was performed in accordance with O. Reg. 511/11 and compared to Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 11). As outlined above select groundwater samples were submitted for chemical analysis of the Metals, F1-F4 PHCs and VOCs parameters. As verified in the following tables and associated Certificates of Analysis included as Appendix II, all chemical analysis for all parameters meet applicable Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 11).

TABLE 1a: GROUNDWATER CHEMICAL ANALYSES - VOCs

PARAMETER	CRITERIA	MDL	MW1501	MW1502	MW1503	MW1504
Acetone	2700	30	<30	<30	<30	<30
Benzene	5	0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	16	2.0	<2.0	<2.0	<2.0	<2.0
Bromoform	25	5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	0.89	0.50	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	0.79	0.20	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	30	0.50	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	25	2.0	<2.0	<2.0	<2.0	<2.0
Chloroform	2.4	1.0	<1.0	<1.0	<1.0	<1.0

Addendum to: *Phase II Environmental Site Assessment at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario, July 15th, 2013, updated September 10th, 2014*



PARAMETER	CRITERIA	MDL	MW1501	MW1502	MW1503	MW1504
1,2-Dibromoethane	0.2	0.20	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	3	0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	59	0.50	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	1	0.50	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	590	2.0	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	5	0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	1.6	0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis & trans)	0.5	0.50	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	50	5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5	0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene		0.30	<0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene		0.30	<0.30	<0.30	<0.30	<0.30
Ethyl Benzene	2.4	0.50	<0.50	<0.50	<0.50	<0.50
n-Hexane	51	0.50	<0.50	<0.50	<0.50	<0.50
Methyl Ethyl Ketone	1800	20	<20	<20	<20	<20
Methyl Isobutyl Ketone	640	20	<20	<20	<20	<20
MTBE	15	2.0	<2.0	<2.0	<2.0	<2.0
Styrene	5.4	0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1.1	0.50	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1	0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	1.6	0.50	<0.50	<0.50	<0.50	<0.50
Toluene	24	0.50	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	200	0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	4.7	0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	1.6	0.50	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	150	5.0	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	0.5	0.50	<0.50	<0.50	<0.50	<0.50
o-Xylene		0.50	<0.50	<0.50	<0.50	<0.50
m+p-Xylenes		0.50	<0.50	<0.50	<0.50	<0.50
Xylenes (Total)	300	0.71	<0.71	<0.71	<0.71	<0.71

All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, N/V - No Value.
 *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011)



TABLE 1b: GROUNDWATER CHEMICAL ANALYSES - VOCs

PARAMETER	CRITERIA	MDL	MW1505	MW1506	MW1507
Acetone	2700	30	<30	<30	<30
Benzene	5	0.50	<0.50	<0.50	<0.50
Bromodichloromethane	16	2.0	<2.0	<2.0	<2.0
Bromoform	25	5.0	<5.0	<5.0	<5.0
Bromomethane	0.89	0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	0.79	0.20	<0.20	<0.20	<0.20
Chlorobenzene	30	0.50	<0.50	<0.50	<0.50
Dibromochloromethane	25	2.0	<2.0	<2.0	<2.0
Chloroform	2.4	1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	0.2	0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	3	0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	59	0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	1	0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	590	2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	5	0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	1.6	0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	1.6	0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis & trans)	0.5	0.50	<0.50	<0.50	<0.50
Methylene Chloride	50	5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	5	0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene		0.30	<0.30	<0.30	<0.30
trans-1,3-Dichloropropene		0.30	<0.30	<0.30	<0.30
Ethyl Benzene	2.4	0.50	<0.50	<0.50	<0.50
n-Hexane	51	0.50	<0.50	<0.50	<0.50
Methyl Ethyl Ketone	1800	20	<20	<20	<20
Methyl Isobutyl Ketone	640	20	<20	<20	<20
MTBE	15	2.0	<2.0	<2.0	<2.0
Styrene	5.4	0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1.1	0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	1	0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	1.6	0.50	<0.50	<0.50	<0.50
Toluene	24	0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	200	0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	4.7	0.50	<0.50	<0.50	<0.50
Trichloroethylene	1.6	0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	150	5.0	<5.0	<5.0	<5.0
Vinyl chloride	0.5	0.50	<0.50	<0.50	<0.50
o-Xylene		0.50	<0.50	<0.50	<0.50
m+p-Xylenes		0.50	<0.50	<0.50	<0.50
Xylenes (Total)	300	0.71	<0.71	<0.71	<0.71



All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, N/V - No Value.
 *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011)

TABLE 2: GROUNDWATER CHEMICAL ANALYSIS- TOTAL METALS

PARAMETER	CRITERIA	MW1501	MW1502	MW1503	MW1504	MW1505
Aluminum (Al)	N/V	0.119	0.680	0.108	0.190	0.093
Antimony (Sb)	0.006	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Arsenic (As)	0.025	0.0054	0.0190	0.0052	0.0043	0.0043
Barium (Ba)	1	0.0316	0.0870	0.0284	0.0196	0.0273
Beryllium (Be)	0.004	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Bismuth (Bi)	N/V	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Boron (B)	5	0.039	0.045	0.029	0.026	0.040
Cadmium (Cd)	0.0027	<0.000090	<0.000090	<0.000090	<0.000090	<0.000090
Calcium (Ca)	N/V	85.2	127	49.7	24.4	99.7
Chromium (Cr)	0.05	<0.00050	0.00158	<0.00050	<0.00050	<0.00050
Cobalt (Co)	0.0038	0.00078	0.00171	0.00055	<0.00050	0.00080
Copper (Cu)	0.087	0.0094	0.0175	0.0112	0.0198	0.0081
Iron (Fe)	N/V	29.4	105	29.9	23.2	21.8
Lead (Pb)	0.01	<0.00050	0.00086	<0.00050	<0.00050	<0.00050
Lithium (Li)	N/V	<0.10	<0.10	<0.10	<0.10	<0.10
Magnesium (Mg)	N/V	23.9	34.5	13.9	6.50	27.7
Manganese (Mn)	N/V	0.147	0.249	0.0885	0.0480	0.172
Molybdenum (Mo)	0.07	0.00072	0.00215	0.00058	0.00062	0.00065
Nickel (Ni)	0.1	0.0011	0.0027	<0.0010	<0.0010	0.0010
Phosphorus (P)	N/V	0.079	0.354	0.078	0.075	0.058
Potassium (K)	N/V	2.1	3.2	1.2	<1.0	2.6
Selenium (Se)	0.01	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Silicon (Si)	N/V	10.9	16.2	10.2	10.6	10.7
Silver (Ag)	0.0015	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Sodium (Na)	490	135	129	139	144	136
Strontium (Sr)	N/V	0.800	1.28	0.477	0.229	0.921
Thallium (Tl)	0.002	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tin (Sn)	N/V	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Titanium (Ti)	N/V	0.0049	0.0288	0.0047	0.0063	0.0035
Tungsten (W)	N/V	<0.010	<0.010	<0.010	<0.010	<0.010
Uranium (U)	0.02	0.0016	0.0035	0.0012	<0.0010	0.0016
Vanadium (V)	0.0062	0.00118	0.00548	0.00114	0.00144	0.00096
Zinc (Zn)	1.1	0.0040	0.0069	0.0059	0.0048	0.0044
Zirconium (Zr)	N/V	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040

All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, N/V - No Value.
 *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011)



TABLE 3: GROUNDWATER CHEMICAL ANALYSIS- DISSOLVED METALS

PARAMETER	CRITERIA	MDL	MW1506	MW1507
Antimony (Sb)	6	0.50	<0.50	<0.50
Arsenic (As)	25	1.0	<1.0	<1.0
Barium (Ba)	1000	2.0	202	197
Beryllium (Be)	4	0.50	<0.50	<0.50
Boron (B)	5000	10	32	32
Cadmium (Cd)	2.7	0.10	<0.10	<0.10
Chromium (Cr)	50	0.50	<0.50	<0.50
Cobalt (Co)	3.8	0.50	<0.50	<0.50
Copper (Cu)	87	1.0	5.2	5.6
Lead (Pb)	10	1.0	<1.0	<1.0
Molybdenum (Mo)	70	0.50	<0.50	<0.50
Nickel (Ni)	100	1.0	<1.0	<1.0
Selenium (Se)	10	5.0	<5.0	<5.0
Silver (Ag)	1.5	0.10	<0.10	<0.10
Sodium (Na)	490000	500	33600	33100
Thallium (Tl)	2	0.30	<0.30	<0.30
Uranium (U)	20	2.0	<2.0	<2.0
Vanadium (V)	6.2	0.50	<0.50	<0.50
Zinc (Zn)	1100	3.0	141	139

All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011)

TABLE 4a: GROUNDWATER CHEMICAL ANALYSES –PETROLEUM HYDROCARBONS

PARAMETER	CRITERIA	MDL	MW1501	MW1502	MW1503	MW1504
PHCs						
F1 (C6-C10)	750	25	<25	<25	<25	<25
F1-BTEX	750	25	<25	<25	<25	<25
F2 (C10-C16)	150	100	<100	<100	<100	<100
F3 (C16-C34)	500	250	<250	<250	<250	<250
F4 (C34-C50)	500	250	<250	<250	<250	<250
Total PHCs	N/V	370	<370	<370	<370	<370

All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, N/V - No Value. *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011).

TABLE 4b: GROUNDWATER CHEMICAL ANALYSES –PETROLEUM HYDROCARBONS

PARAMETER	CRITERIA	MDL	MW1505	MW1506	MW1507	
PHCs						
F1 (C6-C10)	750	25	<25	<25	<25	
F1-BTEX	750	25	<25	<25	<25	
F2 (C10-C16)	150	100	<100	<100	<100	
F3 (C16-C34)	500	250	<250	<250	<250	



F4 (C34-C50)	500	250	<250	<250	<250	
Total PHCs	N/V	370	<370	<370	<370	

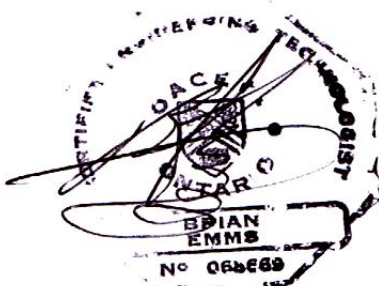
All values in ug/l - ppb - parts per billion MDL- Method Detection Limit, N/V - No Value.
 *Part XV.1 of the *Environmental Protection Act* – Table 2: Full Depth Generic Site Condition Standards in a Potable Groundwater Condition (July 2011).

6.0 Conclusions

It summary items identified during the MOECC review process have been appropriately fulfilled. BAE installed additional monitoring wells and carried out supplemental onsite groundwater sampling and analyses on these and previously installed monitoring wells. This was done to analyse the onsite groundwater from which the residential dwellings along the north side of Marco Street are potentially supplied. Groundwater quality data was obtained from as close as possible to the three metre corridor contiguous to the south property line of the residences on the north side of Marcus Street.

The additional investigations in conjunction with previous ESA investigations have verified that there are no environmental concerns on, in or under the lands adjacent to or downgrade of the neighbouring properties. It has also been determined that there are no environmental concerns on, in or under the area in the centre of the property where infilling was identified. No further environmental investigations are recommended or required at this time.

Respectfully Submitted,
 BAE & Associates Environmental Inc.



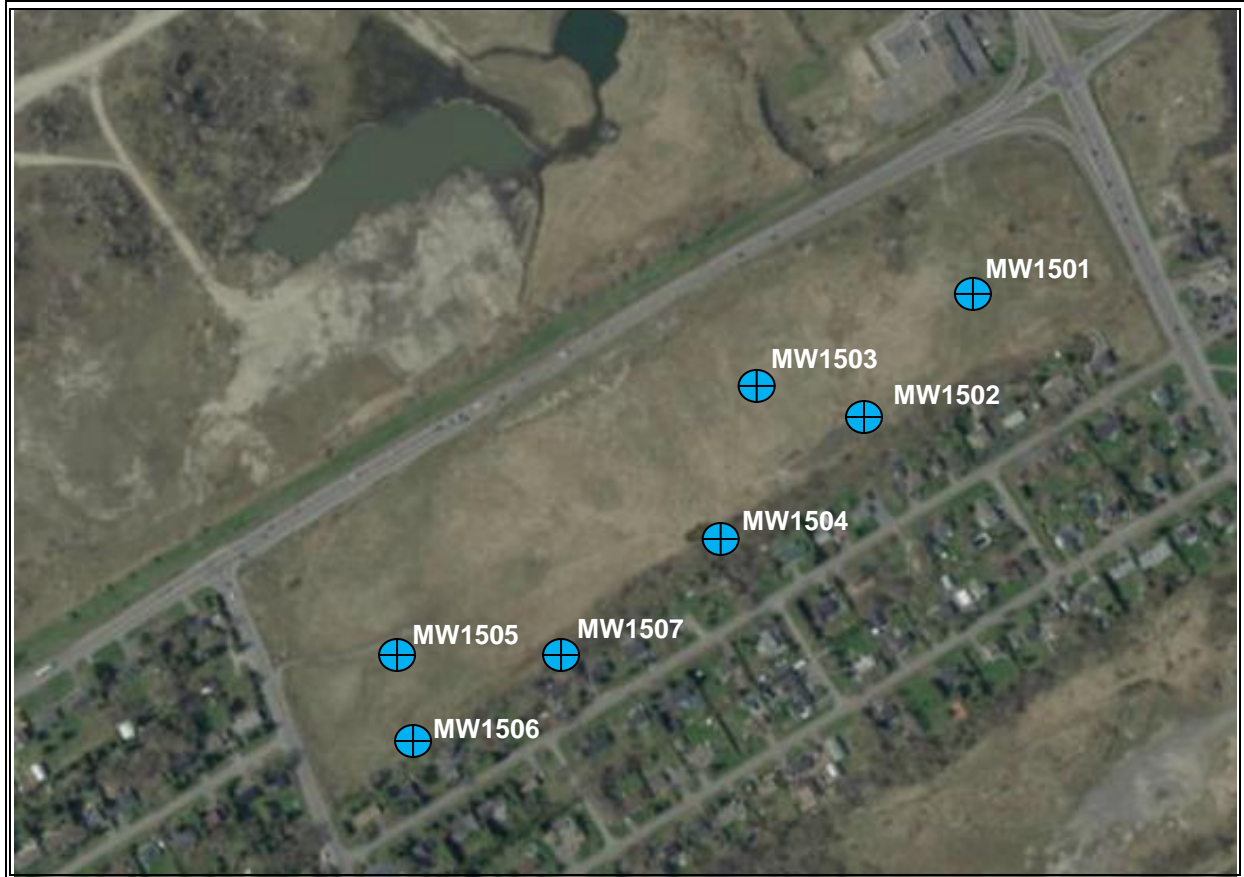
Brian A. Emms, C.E.T.
 Senior Env. Technologist



G. Jan Van Iterson, P. Eng.
 Associate



Figure 1: Groundwater Monitoring Well Sample Locations - 2015



Scale	North	Description	Project Address	Date	Completed By
1:9000	↑	Figure 1: Groundwater Monitoring Wells - 2015	5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario	26-05-15	BAE & Associates Environmental Inc. 18 Parkview Ave., Oro Medonte, ON, L0L2E0



Appendix I Laboratory Certificates of Analysis



8577382 Canada Inc. - BAE Environmental
ATTN: BRIAN EMMS
RR 1 ORO STATION
ORO STATION ON L0L 2E0

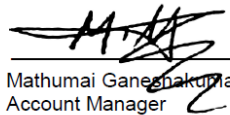
Date Received: 05-MAR-15
Report Date: 11-MAR-15 10:59 (MT)
Version: FINAL

Client Phone: 705-715-1881

Certificate of Analysis

Lab Work Order #: L1584186
Project P.O. #: NOT SUBMITTED
Job Reference: BAE-1453 GREELY
C of C Numbers: 66289
Legal Site Desc:

Comments: 11-MAR-15:
Total metals run instead of dissolved metals as bottle was not field filtered but preserved. Cannot make comparison to Reg. 153/04 for the metal scan.


Mathumai Ganeshakumar
Account Manager

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ANALYTICAL GUIDELINE REPORT

L1584186 CONTD...

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-1	BAE-MW1501							
Sampled By: CLIENT on 03-MAR-15 @ 09:00								
Matrix: WATER								
Total Metals								
	Aluminum (Al)-Total	0.119		0.010	mg/L	09-MAR-15		
	Antimony (Sb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.006	0.006
	Arsenic (As)-Total	0.0054		0.0010	mg/L	09-MAR-15	0.025	0.025
	Barium (Ba)-Total	0.0316		0.0020	mg/L	09-MAR-15	1	1
	Beryllium (Be)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.004	0.004
	Bismuth (Bi)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Boron (B)-Total	0.039		0.010	mg/L	09-MAR-15	5	5
	Cadmium (Cd)-Total	<0.000090		0.000090	mg/L	09-MAR-15	0.0027	0.0027
	Calcium (Ca)-Total	85.2		0.50	mg/L	09-MAR-15		
	Chromium (Cr)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.05	0.05
	Cobalt (Co)-Total	0.00078		0.00050	mg/L	09-MAR-15	0.0038	0.0038
	Copper (Cu)-Total	0.0094		0.0010	mg/L	09-MAR-15	0.087	0.087
	Iron (Fe)-Total	29.4		0.050	mg/L	09-MAR-15		
	Lead (Pb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.01	0.01
	Lithium (Li)-Total	<0.10		0.10	mg/L	09-MAR-15		
	Magnesium (Mg)-Total	23.9		0.50	mg/L	09-MAR-15		
	Manganese (Mn)-Total	0.147		0.0010	mg/L	09-MAR-15		
	Molybdenum (Mo)-Total	0.00072		0.00050	mg/L	09-MAR-15	0.07	0.07
	Nickel (Ni)-Total	0.0011		0.0010	mg/L	09-MAR-15	0.1	0.1
	Phosphorus (P)-Total	0.079		0.050	mg/L	09-MAR-15		
	Potassium (K)-Total	2.1		1.0	mg/L	09-MAR-15		
	Selenium (Se)-Total	<0.00040		0.00040	mg/L	09-MAR-15	0.01	0.01
	Silicon (Si)-Total	10.9		1.0	mg/L	09-MAR-15		
	Silver (Ag)-Total	<0.00010		0.00010	mg/L	09-MAR-15	0.0015	0.0015
	Sodium (Na)-Total	135	DLM	5.0	mg/L	09-MAR-15	490	490
	Strontium (Sr)-Total	0.800		0.0010	mg/L	09-MAR-15		
	Thallium (Tl)-Total	<0.00030		0.00030	mg/L	09-MAR-15	0.002	0.002
	Tin (Sn)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Titanium (Ti)-Total	0.0049		0.0020	mg/L	09-MAR-15		
	Tungsten (W)-Total	<0.010		0.010	mg/L	09-MAR-15		
	Uranium (U)-Total	0.0016		0.0010	mg/L	09-MAR-15	0.02	0.02
	Vanadium (V)-Total	0.00118		0.00050	mg/L	09-MAR-15	0.0062	0.0062
	Zinc (Zn)-Total	0.0040		0.0030	mg/L	09-MAR-15	1.1	1.1
	Zirconium (Zr)-Total	<0.0040		0.0040	mg/L	09-MAR-15		
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	06-MAR-15	2700	2700
	Benzene	<0.50		0.50	ug/L	06-MAR-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	06-MAR-15	16	16
	Bromoform	<5.0		5.0	ug/L	06-MAR-15	25	25
	Bromomethane	<0.50		0.50	ug/L	06-MAR-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	06-MAR-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	06-MAR-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	06-MAR-15	25	25
	Chloroform	<1.0		1.0	ug/L	06-MAR-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	06-MAR-15	0.2	0.2

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



ANALYTICAL GUIDELINE REPORT

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-1	BAE-MW1501							
Sampled By: CLIENT on 03-MAR-15 @ 09:00								
Matrix: WATER								
Volatile Organic Compounds								
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	06-MAR-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-MAR-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	06-MAR-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	06-MAR-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	Ethyl Benzene	<0.50		0.50	ug/L	06-MAR-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	06-MAR-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	06-MAR-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	06-MAR-15	640	640
	MTBE	<2.0		2.0	ug/L	06-MAR-15	15	15
	Styrene	<0.50		0.50	ug/L	06-MAR-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1.1	1.1
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1	1
	Tetrachloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	Toluene	<0.50		0.50	ug/L	06-MAR-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	06-MAR-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	06-MAR-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	06-MAR-15		
	m+p-Xylenes	<0.40		0.40	ug/L	06-MAR-15		
	Xylenes (Total)	<0.50		0.50	ug/L	06-MAR-15	300	300
	Surrogate: 4-Bromofluorobenzene	96.5		70-130	%	06-MAR-15		
	Surrogate: 1,4-Difluorobenzene	101.3		70-130	%	06-MAR-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	06-MAR-15	750	750
	F1-BTEX	<25		25	ug/L	11-MAR-15	750	750
	F2 (C10-C16)	<100		100	ug/L	09-MAR-15	150	150
	F3 (C16-C34)	<250		250	ug/L	09-MAR-15	500	500
	F4 (C34-C50)	<250		250	ug/L	09-MAR-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	11-MAR-15		
	Chrom. to baseline at nC50	YES			No Unit	09-MAR-15		
	Surrogate: 2-Bromobenzotrifluoride	84.1		60-140	%	09-MAR-15		
	Surrogate: 3,4-Dichlorotoluene	88.1		60-140	%	06-MAR-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Environmental

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-2	BAE-MW1502							
Sampled By: CLIENT on 03-MAR-15 @ 10:30								
Matrix: WATER								
Total Metals								
	Aluminum (Al)-Total	0.680		0.010	mg/L	09-MAR-15		
	Antimony (Sb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.006	0.006
	Arsenic (As)-Total	0.0190		0.0010	mg/L	09-MAR-15	0.025	0.025
	Barium (Ba)-Total	0.0870		0.0020	mg/L	09-MAR-15	1	1
	Beryllium (Be)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.004	0.004
	Bismuth (Bi)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Boron (B)-Total	0.045		0.010	mg/L	09-MAR-15	5	5
	Cadmium (Cd)-Total	<0.000090		0.000090	mg/L	09-MAR-15	0.0027	0.0027
	Calcium (Ca)-Total	127		0.50	mg/L	09-MAR-15		
	Chromium (Cr)-Total	0.00158		0.00050	mg/L	09-MAR-15	0.05	0.05
	Cobalt (Co)-Total	0.00171		0.00050	mg/L	09-MAR-15	0.0038	0.0038
	Copper (Cu)-Total	0.0175		0.0010	mg/L	09-MAR-15	0.087	0.087
	Iron (Fe)-Total	105	DLM	0.50	mg/L	09-MAR-15		
	Lead (Pb)-Total	0.00086		0.00050	mg/L	09-MAR-15	0.01	0.01
	Lithium (Li)-Total	<0.10		0.10	mg/L	09-MAR-15		
	Magnesium (Mg)-Total	34.5		0.50	mg/L	09-MAR-15		
	Manganese (Mn)-Total	0.249		0.0010	mg/L	09-MAR-15		
	Molybdenum (Mo)-Total	0.00215		0.00050	mg/L	09-MAR-15	0.07	0.07
	Nickel (Ni)-Total	0.0027		0.0010	mg/L	09-MAR-15	0.1	0.1
	Phosphorus (P)-Total	0.354		0.050	mg/L	09-MAR-15		
	Potassium (K)-Total	3.2		1.0	mg/L	09-MAR-15		
	Selenium (Se)-Total	<0.00040		0.00040	mg/L	09-MAR-15	0.01	0.01
	Silicon (Si)-Total	16.2		1.0	mg/L	09-MAR-15		
	Silver (Ag)-Total	<0.00010		0.00010	mg/L	09-MAR-15	0.0015	0.0015
	Sodium (Na)-Total	129	DLM	5.0	mg/L	09-MAR-15	490	490
	Strontium (Sr)-Total	1.28		0.0010	mg/L	09-MAR-15		
	Thallium (Tl)-Total	<0.00030		0.00030	mg/L	09-MAR-15	0.002	0.002
	Tin (Sn)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Titanium (Ti)-Total	0.0288		0.0020	mg/L	09-MAR-15		
	Tungsten (W)-Total	<0.010		0.010	mg/L	09-MAR-15		
	Uranium (U)-Total	0.0035		0.0010	mg/L	09-MAR-15	0.02	0.02
	Vanadium (V)-Total	0.00548		0.00050	mg/L	09-MAR-15	0.0062	0.0062
	Zinc (Zn)-Total	0.0069		0.0030	mg/L	09-MAR-15	1.1	1.1
	Zirconium (Zr)-Total	<0.0040		0.0040	mg/L	09-MAR-15		
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	06-MAR-15	2700	2700
	Benzene	<0.50		0.50	ug/L	06-MAR-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	06-MAR-15	16	16
	Bromoform	<5.0		5.0	ug/L	06-MAR-15	25	25
	Bromomethane	<0.50		0.50	ug/L	06-MAR-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	06-MAR-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	06-MAR-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	06-MAR-15	25	25
	Chloroform	<1.0		1.0	ug/L	06-MAR-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	06-MAR-15	0.2	0.2

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-2 BAE-MW1502								
Sampled By: CLIENT on 03-MAR-15 @ 10:30								
Matrix: WATER								
Volatile Organic Compounds								
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	06-MAR-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-MAR-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	06-MAR-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	06-MAR-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	Ethyl Benzene	<0.50		0.50	ug/L	06-MAR-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	06-MAR-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	06-MAR-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	06-MAR-15	640	640
	MTBE	<2.0		2.0	ug/L	06-MAR-15	15	15
	Styrene	<0.50		0.50	ug/L	06-MAR-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1.1	1.1
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1	1
	Tetrachloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	Toluene	<0.50		0.50	ug/L	06-MAR-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	06-MAR-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	06-MAR-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	06-MAR-15		
	m+p-Xylenes	<0.40		0.40	ug/L	06-MAR-15		
	Xylenes (Total)	<0.50		0.50	ug/L	06-MAR-15	300	300
	Surrogate: 4-Bromofluorobenzene	96.0		70-130	%	06-MAR-15		
	Surrogate: 1,4-Difluorobenzene	101.7		70-130	%	06-MAR-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	06-MAR-15	750	750
	F1-BTEX	<25		25	ug/L	11-MAR-15	750	750
	F2 (C10-C16)	<100		100	ug/L	09-MAR-15	150	150
	F3 (C16-C34)	<250		250	ug/L	09-MAR-15	500	500
	F4 (C34-C50)	<250		250	ug/L	09-MAR-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	11-MAR-15		
	Chrom. to baseline at nC50	YES			No Unit	09-MAR-15		
	Surrogate: 2-Bromobenzotrifluoride	93.4		60-140	%	09-MAR-15		
	Surrogate: 3,4-Dichlorotoluene	91.6		60-140	%	06-MAR-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-3	BAE-MW1503							
Sampled By: CLIENT on 03-MAR-15 @ 12:00								
Matrix: WATER								
Total Metals								
	Aluminum (Al)-Total	0.108		0.010	mg/L	09-MAR-15		
	Antimony (Sb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.006	0.006
	Arsenic (As)-Total	0.0052		0.0010	mg/L	09-MAR-15	0.025	0.025
	Barium (Ba)-Total	0.0284		0.0020	mg/L	09-MAR-15	1	1
	Beryllium (Be)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.004	0.004
	Bismuth (Bi)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Boron (B)-Total	0.029		0.010	mg/L	09-MAR-15	5	5
	Cadmium (Cd)-Total	<0.00090		0.00090	mg/L	09-MAR-15	0.0027	0.0027
	Calcium (Ca)-Total	49.7		0.50	mg/L	09-MAR-15		
	Chromium (Cr)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.05	0.05
	Cobalt (Co)-Total	0.00055		0.00050	mg/L	09-MAR-15	0.0038	0.0038
	Copper (Cu)-Total	0.0112		0.0010	mg/L	09-MAR-15	0.087	0.087
	Iron (Fe)-Total	29.9		0.050	mg/L	09-MAR-15		
	Lead (Pb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.01	0.01
	Lithium (Li)-Total	<0.10		0.10	mg/L	09-MAR-15		
	Magnesium (Mg)-Total	13.9		0.50	mg/L	09-MAR-15		
	Manganese (Mn)-Total	0.0885		0.0010	mg/L	09-MAR-15		
	Molybdenum (Mo)-Total	0.00058		0.00050	mg/L	09-MAR-15	0.07	0.07
	Nickel (Ni)-Total	<0.0010		0.0010	mg/L	09-MAR-15	0.1	0.1
	Phosphorus (P)-Total	0.078		0.050	mg/L	09-MAR-15		
	Potassium (K)-Total	1.2		1.0	mg/L	09-MAR-15		
	Selenium (Se)-Total	<0.00040		0.00040	mg/L	09-MAR-15	0.01	0.01
	Silicon (Si)-Total	10.2		1.0	mg/L	09-MAR-15		
	Silver (Ag)-Total	<0.00010		0.00010	mg/L	09-MAR-15	0.0015	0.0015
	Sodium (Na)-Total	139	DLM	5.0	mg/L	09-MAR-15	490	490
	Strontium (Sr)-Total	0.477		0.0010	mg/L	09-MAR-15		
	Thallium (Tl)-Total	<0.00030		0.00030	mg/L	09-MAR-15	0.002	0.002
	Tin (Sn)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Titanium (Ti)-Total	0.0047		0.0020	mg/L	09-MAR-15		
	Tungsten (W)-Total	<0.010		0.010	mg/L	09-MAR-15		
	Uranium (U)-Total	0.0012		0.0010	mg/L	09-MAR-15	0.02	0.02
	Vanadium (V)-Total	0.00114		0.00050	mg/L	09-MAR-15	0.0062	0.0062
	Zinc (Zn)-Total	0.0059		0.0030	mg/L	09-MAR-15	1.1	1.1
	Zirconium (Zr)-Total	<0.0040		0.0040	mg/L	09-MAR-15		
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	06-MAR-15	2700	2700
	Benzene	<0.50		0.50	ug/L	06-MAR-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	06-MAR-15	16	16
	Bromoform	<5.0		5.0	ug/L	06-MAR-15	25	25
	Bromomethane	<0.50		0.50	ug/L	06-MAR-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	06-MAR-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	06-MAR-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	06-MAR-15	25	25
	Chloroform	<1.0		1.0	ug/L	06-MAR-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	06-MAR-15	0.2	0.2

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



ANALYTICAL GUIDELINE REPORT

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-3	BAE-MW1503							
Sampled By: CLIENT on 03-MAR-15 @ 12:00								
Matrix: WATER								
Volatile Organic Compounds								
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	06-MAR-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-MAR-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	06-MAR-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	06-MAR-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	Ethyl Benzene	<0.50		0.50	ug/L	06-MAR-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	06-MAR-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	06-MAR-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	06-MAR-15	640	640
	MTBE	<2.0		2.0	ug/L	06-MAR-15	15	15
	Styrene	<0.50		0.50	ug/L	06-MAR-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1.1	1.1
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1	1
	Tetrachloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	Toluene	<0.50		0.50	ug/L	06-MAR-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	06-MAR-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	06-MAR-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	06-MAR-15		
	m+p-Xylenes	<0.40		0.40	ug/L	06-MAR-15		
	Xylenes (Total)	<0.50		0.50	ug/L	06-MAR-15	300	300
	Surrogate: 4-Bromofluorobenzene	95.9		70-130	%	06-MAR-15		
	Surrogate: 1,4-Difluorobenzene	100.7		70-130	%	06-MAR-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	06-MAR-15	750	750
	F1-BTEX	<25		25	ug/L	11-MAR-15	750	750
	F2 (C10-C16)	<100		100	ug/L	09-MAR-15	150	150
	F3 (C16-C34)	<250		250	ug/L	09-MAR-15	500	500
	F4 (C34-C50)	<250		250	ug/L	09-MAR-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	11-MAR-15		
	Chrom. to baseline at nC50	YES			No Unit	09-MAR-15		
	Surrogate: 2-Bromobenzotrifluoride	82.6		60-140	%	09-MAR-15		
	Surrogate: 3,4-Dichlorotoluene	83.1		60-140	%	06-MAR-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-4	BAE-MW1504							
Sampled By: CLIENT on 03-MAR-15 @ 13:30								
Matrix: WATER								
Total Metals								
	Aluminum (Al)-Total	0.190		0.010	mg/L	09-MAR-15		
	Antimony (Sb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.006	0.006
	Arsenic (As)-Total	0.0043		0.0010	mg/L	09-MAR-15	0.025	0.025
	Barium (Ba)-Total	0.0196		0.0020	mg/L	09-MAR-15	1	1
	Beryllium (Be)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.004	0.004
	Bismuth (Bi)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Boron (B)-Total	0.026		0.010	mg/L	09-MAR-15	5	5
	Cadmium (Cd)-Total	<0.000090		0.000090	mg/L	09-MAR-15	0.0027	0.0027
	Calcium (Ca)-Total	24.4		0.50	mg/L	09-MAR-15		
	Chromium (Cr)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.05	0.05
	Cobalt (Co)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.0038	0.0038
	Copper (Cu)-Total	0.0198		0.0010	mg/L	09-MAR-15	0.087	0.087
	Iron (Fe)-Total	23.2		0.050	mg/L	09-MAR-15		
	Lead (Pb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.01	0.01
	Lithium (Li)-Total	<0.10		0.10	mg/L	09-MAR-15		
	Magnesium (Mg)-Total	6.50		0.50	mg/L	09-MAR-15		
	Manganese (Mn)-Total	0.0480		0.0010	mg/L	09-MAR-15		
	Molybdenum (Mo)-Total	0.00062		0.00050	mg/L	09-MAR-15	0.07	0.07
	Nickel (Ni)-Total	<0.0010		0.0010	mg/L	09-MAR-15	0.1	0.1
	Phosphorus (P)-Total	0.075		0.050	mg/L	09-MAR-15		
	Potassium (K)-Total	<1.0		1.0	mg/L	09-MAR-15		
	Selenium (Se)-Total	<0.00040		0.00040	mg/L	09-MAR-15	0.01	0.01
	Silicon (Si)-Total	10.6		1.0	mg/L	09-MAR-15		
	Silver (Ag)-Total	<0.00010		0.00010	mg/L	09-MAR-15	0.0015	0.0015
	Sodium (Na)-Total	144	DLM	5.0	mg/L	09-MAR-15	490	490
	Strontium (Sr)-Total	0.229		0.0010	mg/L	09-MAR-15		
	Thallium (Tl)-Total	<0.00030		0.00030	mg/L	09-MAR-15	0.002	0.002
	Tin (Sn)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Titanium (Ti)-Total	0.0063		0.0020	mg/L	09-MAR-15		
	Tungsten (W)-Total	<0.010		0.010	mg/L	09-MAR-15		
	Uranium (U)-Total	<0.0010		0.0010	mg/L	09-MAR-15	0.02	0.02
	Vanadium (V)-Total	0.00144		0.00050	mg/L	09-MAR-15	0.0062	0.0062
	Zinc (Zn)-Total	0.0048		0.0030	mg/L	09-MAR-15	1.1	1.1
	Zirconium (Zr)-Total	<0.0040		0.0040	mg/L	09-MAR-15		
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	06-MAR-15	2700	2700
	Benzene	<0.50		0.50	ug/L	06-MAR-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	06-MAR-15	16	16
	Bromoform	<5.0		5.0	ug/L	06-MAR-15	25	25
	Bromomethane	<0.50		0.50	ug/L	06-MAR-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	06-MAR-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	06-MAR-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	06-MAR-15	25	25
	Chloroform	<1.0		1.0	ug/L	06-MAR-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	06-MAR-15	0.2	0.2

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



ANALYTICAL GUIDELINE REPORT

L1584186 CONTD....

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-4 BAE-MW1504								
Sampled By: CLIENT on 03-MAR-15 @ 13:30								
Matrix: WATER								
Volatile Organic Compounds								
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	06-MAR-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-MAR-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	06-MAR-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	06-MAR-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	Ethyl Benzene	<0.50		0.50	ug/L	06-MAR-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	06-MAR-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	06-MAR-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	06-MAR-15	640	640
	MTBE	<2.0		2.0	ug/L	06-MAR-15	15	15
	Styrene	<0.50		0.50	ug/L	06-MAR-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1.1	1.1
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1	1
	Tetrachloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	Toluene	<0.50		0.50	ug/L	06-MAR-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	06-MAR-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	06-MAR-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	06-MAR-15		
	m+p-Xylenes	<0.40		0.40	ug/L	06-MAR-15		
	Xylenes (Total)	<0.50		0.50	ug/L	06-MAR-15	300	300
	Surrogate: 4-Bromofluorobenzene	95.8		70-130	%	06-MAR-15		
	Surrogate: 1,4-Difluorobenzene	100.8		70-130	%	06-MAR-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	06-MAR-15	750	750
	F1-BTEX	<25		25	ug/L	11-MAR-15	750	750
	F2 (C10-C16)	<100		100	ug/L	09-MAR-15	150	150
	F3 (C16-C34)	<250		250	ug/L	09-MAR-15	500	500
	F4 (C34-C50)	<250		250	ug/L	09-MAR-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	11-MAR-15		
	Chrom. to baseline at nC50	YES			No Unit	09-MAR-15		
	Surrogate: 2-Bromobenzotrifluoride	96.9		60-140	%	09-MAR-15		
	Surrogate: 3,4-Dichlorotoluene	90.4		60-140	%	06-MAR-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



ANALYTICAL GUIDELINE REPORT

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BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-5	BAE-MW1505							
Sampled By: CLIENT on 03-MAR-15 @ 15:00								
Matrix: WATER								
Total Metals								
	Aluminum (Al)-Total	0.093		0.010	mg/L	09-MAR-15		
	Antimony (Sb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.006	0.006
	Arsenic (As)-Total	0.0043		0.0010	mg/L	09-MAR-15	0.025	0.025
	Barium (Ba)-Total	0.0273		0.0020	mg/L	09-MAR-15	1	1
	Beryllium (Be)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.004	0.004
	Bismuth (Bi)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Boron (B)-Total	0.040		0.010	mg/L	09-MAR-15	5	5
	Cadmium (Cd)-Total	<0.000090		0.000090	mg/L	09-MAR-15	0.0027	0.0027
	Calcium (Ca)-Total	99.7		0.50	mg/L	09-MAR-15		
	Chromium (Cr)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.05	0.05
	Cobalt (Co)-Total	0.00080		0.00050	mg/L	09-MAR-15	0.0038	0.0038
	Copper (Cu)-Total	0.0081		0.0010	mg/L	09-MAR-15	0.087	0.087
	Iron (Fe)-Total	21.8		0.050	mg/L	09-MAR-15		
	Lead (Pb)-Total	<0.00050		0.00050	mg/L	09-MAR-15	0.01	0.01
	Lithium (Li)-Total	<0.10		0.10	mg/L	09-MAR-15		
	Magnesium (Mg)-Total	27.7		0.50	mg/L	09-MAR-15		
	Manganese (Mn)-Total	0.172		0.0010	mg/L	09-MAR-15		
	Molybdenum (Mo)-Total	0.00065		0.00050	mg/L	09-MAR-15	0.07	0.07
	Nickel (Ni)-Total	0.0010		0.0010	mg/L	09-MAR-15	0.1	0.1
	Phosphorus (P)-Total	0.058		0.050	mg/L	09-MAR-15		
	Potassium (K)-Total	2.6		1.0	mg/L	09-MAR-15		
	Selenium (Se)-Total	<0.00040		0.00040	mg/L	09-MAR-15	0.01	0.01
	Silicon (Si)-Total	10.7		1.0	mg/L	09-MAR-15		
	Silver (Ag)-Total	<0.00010		0.00010	mg/L	09-MAR-15	0.0015	0.0015
	Sodium (Na)-Total	136	DLM	5.0	mg/L	09-MAR-15	490	490
	Strontium (Sr)-Total	0.921		0.0010	mg/L	09-MAR-15		
	Thallium (Tl)-Total	<0.00030		0.00030	mg/L	09-MAR-15	0.002	0.002
	Tin (Sn)-Total	<0.0010		0.0010	mg/L	09-MAR-15		
	Titanium (Ti)-Total	0.0035		0.0020	mg/L	09-MAR-15		
	Tungsten (W)-Total	<0.010		0.010	mg/L	09-MAR-15		
	Uranium (U)-Total	0.0016		0.0010	mg/L	09-MAR-15	0.02	0.02
	Vanadium (V)-Total	0.00096		0.00050	mg/L	09-MAR-15	0.0062	0.0062
	Zinc (Zn)-Total	0.0044		0.0030	mg/L	09-MAR-15	1.1	1.1
	Zirconium (Zr)-Total	<0.0040		0.0040	mg/L	09-MAR-15		
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	06-MAR-15	2700	2700
	Benzene	<0.50		0.50	ug/L	06-MAR-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	06-MAR-15	16	16
	Bromoform	<5.0		5.0	ug/L	06-MAR-15	25	25
	Bromomethane	<0.50		0.50	ug/L	06-MAR-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	06-MAR-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	06-MAR-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	06-MAR-15	25	25
	Chloroform	<1.0		1.0	ug/L	06-MAR-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	06-MAR-15	0.2	0.2

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Environmental

ANALYTICAL GUIDELINE REPORT

L1584186 CONTD....

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11-MAR-15 10:59 (MT)

BAE-1453 GREELY

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1584186-5	BAE-MW1505							
Sampled By: CLIENT on 03-MAR-15 @ 15:00								
Matrix: WATER								
Volatile Organic Compounds								
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	06-MAR-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	06-MAR-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	06-MAR-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	06-MAR-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	06-MAR-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	06-MAR-15		
	Ethyl Benzene	<0.50		0.50	ug/L	06-MAR-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	06-MAR-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	06-MAR-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	06-MAR-15	640	640
	MTBE	<2.0		2.0	ug/L	06-MAR-15	15	15
	Styrene	<0.50		0.50	ug/L	06-MAR-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1.1	1.1
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	06-MAR-15	1	1
	Tetrachloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	17
	Toluene	<0.50		0.50	ug/L	06-MAR-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	06-MAR-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	06-MAR-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	06-MAR-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	06-MAR-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	06-MAR-15		
	m+p-Xylenes	<0.40		0.40	ug/L	06-MAR-15		
	Xylenes (Total)	<0.50		0.50	ug/L	06-MAR-15	300	300
	Surrogate: 4-Bromofluorobenzene	95.4		70-130	%	06-MAR-15		
	Surrogate: 1,4-Difluorobenzene	101.0		70-130	%	06-MAR-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	06-MAR-15	750	750
	F1-BTEX	<25		25	ug/L	11-MAR-15	750	750
	F2 (C10-C16)	<100		100	ug/L	09-MAR-15	150	150
	F3 (C16-C34)	<250		250	ug/L	09-MAR-15	500	500
	F4 (C34-C50)	<250		250	ug/L	09-MAR-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	11-MAR-15		
	Chrom. to baseline at nC50	YES			No Unit	09-MAR-15		
	Surrogate: 2-Bromobenzotrifluoride	85.8		60-140	%	09-MAR-15		
	Surrogate: 3,4-Dichlorotoluene	81.8		60-140	%	06-MAR-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Reference Information

Sample Parameter Qualifier key listed:

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

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC DEC-2000 - PUB# 1310-L

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

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed, F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

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

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

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

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

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

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

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

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

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

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

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

MET-T-MS-WT	Water	Total Metals in Water by ICPMS	EPA 200.8
-------------	-------	--------------------------------	-----------

This analysis involves preliminary sample treatment by hotblock acid digestion (APHA 3030E). Instrumental analysis is by inductively coupled plasma - mass spectrometry (EPA Method 6020A).

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

Liquid samples are analyzed by headspace GC/MSD.

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

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

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

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

Chain of Custody numbers:

66289

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



Reference Information

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

GLOSSARY OF REPORT TERMS

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

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

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

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

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

< - Less than.

D.L. - The reporting limit.

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

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

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

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

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



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CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM

C of C # 66289
PAGE 1 OF 1

Note: all TAT Quoted material is in business days which exclude statutory holidays and weekends. TAT examples received past 3:00pm on Saturday/Sunday begin the next day.		Date requested: _____ Service requested: <input checked="" type="checkbox"/> 3 day (Regular) <input type="checkbox"/> Next day TAT (100%) <input type="checkbox"/> Same day TAT (200%)																																																																		
COMPANY NAME: BAE Environmental ALS ACCOUNT #: 19051 PROJECT MANAGER: S. Emms PROJECT #: BAE-1453 GREELY PHONE: 705-715-1881 FAX: _____ QUOTATION #: _____ PC#: _____		CRITERIA: <input checked="" type="checkbox"/> Criteria on report (Y/N) Reg 153/04: 2W1 Table 1: 2 3 TCLP: <input type="checkbox"/> MISA <input type="checkbox"/> PWC0 OTHER: _____ REPORT DISTRIBUTION: ALL FINAL RESULTS WILL BE MAILED EMAIL: <input checked="" type="checkbox"/> FAX: _____ BOTH: _____ EMAIL: emms01@rogers.com EMPLID: _____																																																																		
SAMPLING INFORMATION Sample Date/Time: _____ TYPE: _____ MATRIX: _____ SELECT: <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		ANALYSIS REQUEST INDICATE BOTTLES FIELD FILTERED: <input type="checkbox"/> PRESERVED (PP): _____ SUBMISSION #: L1584186 ENTERED BY: NC DATE/TIME ENTERED: 05-Mar-15 BIN #: _____																																																																		
TABLE: <table border="1"> <thead> <tr> <th>Date (yy/mm/dd)</th> <th>Time (24 hr)</th> <th>DEPTH</th> <th>WATER</th> <th>SOIL</th> <th>OTHER</th> <th>SAMPLE DESCRIPTION TO APPEAR ON REPORT</th> <th>NUMBER OF CONTAINERS</th> <th>VOCs</th> <th>FL2,3,4</th> <th>Metal Scan</th> </tr> </thead> <tbody> <tr> <td>15/03/03</td> <td>0900</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td>BAE-MW1501</td> <td>6</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>10:20</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td>BAE-MW1502</td> <td>6</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>12:00</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td>BAE-MW1503</td> <td>6</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>13:30</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td>BAE-MW1504</td> <td>6</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td></td> <td>15:00</td> <td></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td></td> <td>BAE-MW1505</td> <td>6</td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>		Date (yy/mm/dd)	Time (24 hr)	DEPTH	WATER	SOIL	OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	VOCs	FL2,3,4	Metal Scan	15/03/03	0900		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		BAE-MW1501	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		10:20		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		BAE-MW1502	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		12:00		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		BAE-MW1503	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		13:30		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		BAE-MW1504	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		15:00		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		BAE-MW1505	6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	COMMENTS: _____ LAB ID: _____ SPECIAL INSTRUCTIONS/COMMENTS: _____ SAMPLE CONDITION: FROZEN: _____ MEAN TEMP: 9.8°C COLP: <input checked="" type="checkbox"/> AMBIENT: _____ CONDITION ACCEPTABLE (PROD RECEIPT FIRM): <input checked="" type="checkbox"/> INIT: GP
Date (yy/mm/dd)	Time (24 hr)	DEPTH	WATER	SOIL	OTHER	SAMPLE DESCRIPTION TO APPEAR ON REPORT	NUMBER OF CONTAINERS	VOCs	FL2,3,4	Metal Scan																																																										
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SAMPLED BY: [Signature] DATE: Mar 3/15 RECEIVED BY: [Signature] DATE: Mar 5/15		RECEIVED BY: [Signature] DATE: CS-MAR-15 10:55 RECEIVED AT: _____ DATE & TIME: _____																																																																		
NOTES AND COMMENTS: 1. Quote number must be provided to ensure proper pricing. 2. TAT may vary depending on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs. 3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.																																																																				

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Date Received: 15-MAY-15
Report Date: 21-MAY-15 10:10 (MT)
Version: FINAL

Client Phone: 705-715-1881

Certificate of Analysis

Lab Work Order #: **L1612833**
Project P.O. #: NOT SUBMITTED
Job Reference: BAE-1453
C of C Numbers: 154206
Legal Site Desc:

Mathumai Ganeshakumar
Account Manager

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ANALYTICAL GUIDELINE REPORT

L1612833 CONTD....

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21-MAY-15 10:10 (MT)

BAE-1453

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1612833-1	BAE-MW 1506							
Sampled By: CLIENT on 15-MAY-15 @ 07:00								
Matrix: WATER								
Dissolved Metals								
	Dissolved Metals Filtration Location	FIELD			No Unit	19-MAY-15		
	Antimony (Sb)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	6	6
	Arsenic (As)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	25	25
	Barium (Ba)-Dissolved	202		2.0	ug/L	20-MAY-15	1000	1000
	Beryllium (Be)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	4	4
	Boron (B)-Dissolved	32		10	ug/L	20-MAY-15	5000	5000
	Cadmium (Cd)-Dissolved	<0.10		0.10	ug/L	20-MAY-15	2.7	2.7
	Chromium (Cr)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	50	50
	Cobalt (Co)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	3.8	3.8
	Copper (Cu)-Dissolved	5.2		1.0	ug/L	20-MAY-15	87	87
	Lead (Pb)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	10	10
	Molybdenum (Mo)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	70	70
	Nickel (Ni)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	100	100
	Selenium (Se)-Dissolved	<5.0		5.0	ug/L	20-MAY-15	10	10
	Silver (Ag)-Dissolved	<0.10		0.10	ug/L	20-MAY-15	1.5	1.5
	Sodium (Na)-Dissolved	33600		500	ug/L	20-MAY-15	490000	490000
	Thallium (Tl)-Dissolved	<0.30		0.30	ug/L	20-MAY-15	2	2
	Uranium (U)-Dissolved	<2.0		2.0	ug/L	20-MAY-15	20	20
	Vanadium (V)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	6.2	6.2
	Zinc (Zn)-Dissolved	141		3.0	ug/L	20-MAY-15	1100	1100
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	21-MAY-15	2700	2700
	Benzene	<0.50		0.50	ug/L	21-MAY-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	21-MAY-15	16	16
	Bromoform	<5.0		5.0	ug/L	21-MAY-15	25	25
	Bromomethane	<0.50		0.50	ug/L	21-MAY-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	21-MAY-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	21-MAY-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	21-MAY-15	25	25
	Chloroform	<1.0		1.0	ug/L	21-MAY-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	21-MAY-15	0.2	0.2
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	21-MAY-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	21-MAY-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	21-MAY-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	21-MAY-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	21-MAY-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	21-MAY-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	21-MAY-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



ANALYTICAL GUIDELINE REPORT

L1612833 CONTD....

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21-MAY-15 10:10 (MT)

BAE-1453

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits						
Grouping	Analyte						#1		#2				
L1612833-1	BAE-MW1506												
Sampled By: CLIENT on 15-MAY-15 @ 07:00													
Matrix: WATER													
Volatile Organic Compounds													
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	21-MAY-15							
	Ethylbenzene	<0.50		0.50	ug/L	21-MAY-15	2.4		2.4				
	n-Hexane	<0.50		0.50	ug/L	21-MAY-15	51		520				
	Methyl Ethyl Ketone	<20		20	ug/L	21-MAY-15	1800		1800				
	Methyl Isobutyl Ketone	<20		20	ug/L	21-MAY-15	640		640				
	MTBE	<2.0		2.0	ug/L	21-MAY-15	15		15				
	Styrene	<0.50		0.50	ug/L	21-MAY-15	5.4		5.4				
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	21-MAY-15	1.1		1.1				
	1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	21-MAY-15	1		1				
	Tetrachloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6		17				
	Toluene	<0.50		0.50	ug/L	21-MAY-15	24		24				
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	21-MAY-15	200		200				
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	21-MAY-15	4.7		5				
	Trichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6		5				
	Trichlorofluoromethane	<5.0		5.0	ug/L	21-MAY-15	150		150				
	Vinyl chloride	<0.50		0.50	ug/L	21-MAY-15	0.5		1.7				
	o-Xylene	<0.30		0.30	ug/L	21-MAY-15							
	m+p-Xylenes	<0.40		0.40	ug/L	21-MAY-15							
	Xylenes (Total)	<0.50		0.50	ug/L	21-MAY-15	300		300				
	Surrogate: 4-Bromofluorobenzene	92.1		70-130	%	21-MAY-15							
	Surrogate: 1,4-Difluorobenzene	98.3		70-130	%	21-MAY-15							
Hydrocarbons													
	F1 (C8-C10)	<25		25	ug/L	21-MAY-15	750		750				
	F1-BTEX	<25		25	ug/L	21-MAY-15	750		750				
	F2 (C10-C16)	<100		100	ug/L	20-MAY-15	150		150				
	F3 (C16-C34)	<250		250	ug/L	20-MAY-15	500		500				
	F4 (C34-C50)	<250		250	ug/L	20-MAY-15	500		500				
	Total Hydrocarbons (C8-C50)	<370		370	ug/L	21-MAY-15							
	Chrom. to baseline at nC50	YES			No Unit	20-MAY-15							
	Surrogate: 2-Bromobenzotrifluoride	79.4		60-140	%	20-MAY-15							
	Surrogate: 3,4-Dichlorotoluene	99.9		60-140	%	21-MAY-15							
L1612833-2	BAE-MW1507												
Sampled By: CLIENT on 15-MAY-15 @ 07:15													
Matrix: WATER													
Dissolved Metals													
	Dissolved Metals Filtration Location	FIELD			No Unit	19-MAY-15							
	Antimony (Sb)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	6		6				
	Arsenic (As)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	25		25				
	Barium (Ba)-Dissolved	197		2.0	ug/L	20-MAY-15	1000		1000				
	Beryllium (Be)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	4		4				
	Boron (B)-Dissolved	32		10	ug/L	20-MAY-15	5000		5000				
	Cadmium (Cd)-Dissolved	<0.10		0.10	ug/L	20-MAY-15	2.7		2.7				
	Chromium (Cr)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	50		50				
	Cobalt (Co)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	3.8		3.8				

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Environmental

ANALYTICAL GUIDELINE REPORT

L1612833 CONTD....

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BAE-1453

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1612833-2	BAE-MW1507							
Sampled By: CLIENT on 15-MAY-15 @ 07:15								
Matrix: WATER								
Dissolved Metals								
	Copper (Cu)-Dissolved	5.6		1.0	ug/L	20-MAY-15	87	87
	Lead (Pb)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	10	10
	Molybdenum (Mo)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	70	70
	Nickel (Ni)-Dissolved	<1.0		1.0	ug/L	20-MAY-15	100	100
	Selenium (Se)-Dissolved	<5.0		5.0	ug/L	20-MAY-15	10	10
	Silver (Ag)-Dissolved	<0.10		0.10	ug/L	20-MAY-15	1.5	1.5
	Sodium (Na)-Dissolved	33100		500	ug/L	20-MAY-15	490000	490000
	Thallium (Tl)-Dissolved	<0.30		0.30	ug/L	20-MAY-15	2	2
	Uranium (U)-Dissolved	<2.0		2.0	ug/L	20-MAY-15	20	20
	Vanadium (V)-Dissolved	<0.50		0.50	ug/L	20-MAY-15	6.2	6.2
	Zinc (Zn)-Dissolved	139		3.0	ug/L	20-MAY-15	1100	1100
Volatile Organic Compounds								
	Acetone	<30		30	ug/L	21-MAY-15	2700	2700
	Benzene	<0.50		0.50	ug/L	21-MAY-15	5	5
	Bromodichloromethane	<2.0		2.0	ug/L	21-MAY-15	16	16
	Bromoform	<5.0		5.0	ug/L	21-MAY-15	25	25
	Bromomethane	<0.50		0.50	ug/L	21-MAY-15	0.89	0.89
	Carbon tetrachloride	<0.20		0.20	ug/L	21-MAY-15	0.79	5
	Chlorobenzene	<0.50		0.50	ug/L	21-MAY-15	30	30
	Dibromochloromethane	<2.0		2.0	ug/L	21-MAY-15	25	25
	Chloroform	<1.0		1.0	ug/L	21-MAY-15	2.4	22
	1,2-Dibromoethane	<0.20		0.20	ug/L	21-MAY-15	0.2	0.2
	1,2-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	3	3
	1,3-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	59	59
	1,4-Dichlorobenzene	<0.50		0.50	ug/L	21-MAY-15	1	1
	Dichlorodifluoromethane	<2.0		2.0	ug/L	21-MAY-15	590	590
	1,1-Dichloroethane	<0.50		0.50	ug/L	21-MAY-15	5	5
	1,2-Dichloroethane	<0.50		0.50	ug/L	21-MAY-15	1.6	5
	1,1-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	14
	cis-1,2-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	17
	trans-1,2-Dichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	17
	1,3-Dichloropropene (cis & trans)	<0.50		0.50	ug/L	21-MAY-15	0.5	0.5
	Methylene Chloride	<5.0		5.0	ug/L	21-MAY-15	50	50
	1,2-Dichloropropane	<0.50		0.50	ug/L	21-MAY-15	5	5
	cis-1,3-Dichloropropene	<0.30		0.30	ug/L	21-MAY-15		
	trans-1,3-Dichloropropene	<0.30		0.30	ug/L	21-MAY-15		
	Ethylbenzene	<0.50		0.50	ug/L	21-MAY-15	2.4	2.4
	n-Hexane	<0.50		0.50	ug/L	21-MAY-15	51	520
	Methyl Ethyl Ketone	<20		20	ug/L	21-MAY-15	1800	1800
	Methyl Isobutyl Ketone	<20		20	ug/L	21-MAY-15	640	640
	MTBE	<2.0		2.0	ug/L	21-MAY-15	15	15
	Styrene	<0.50		0.50	ug/L	21-MAY-15	5.4	5.4
	1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L	21-MAY-15	1.1	1.1
	1,1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L	21-MAY-15	1	1

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Environmental

ANALYTICAL GUIDELINE REPORT

L1612833 CONTD....

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BAE-1453

Sample Details		Result	Qualifier	D.L.	Units	Analyzed	Guideline Limits	
Grouping	Analyte						#1	#2
L1612833-2	BAE-MW1507							
Sampled By: CLIENT on 15-MAY-15 @ 07:15								
Matrix: WATER								
Volatile Organic Compounds								
	Tetrachloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	17
	Toluene	<0.50		0.50	ug/L	21-MAY-15	24	24
	1,1,1-Trichloroethane	<0.50		0.50	ug/L	21-MAY-15	200	200
	1,1,2-Trichloroethane	<0.50		0.50	ug/L	21-MAY-15	4.7	5
	Trichloroethylene	<0.50		0.50	ug/L	21-MAY-15	1.6	5
	Trichlorofluoromethane	<5.0		5.0	ug/L	21-MAY-15	150	150
	Vinyl chloride	<0.50		0.50	ug/L	21-MAY-15	0.5	1.7
	o-Xylene	<0.30		0.30	ug/L	21-MAY-15		
	m+p-Xylenes	<0.40		0.40	ug/L	21-MAY-15		
	Xylenes (Total)	<0.50		0.50	ug/L	21-MAY-15	300	300
	Surrogate: 4-Bromofluorobenzene	92.0		70-130	%	21-MAY-15		
	Surrogate: 1,4-Difluorobenzene	98.4		70-130	%	21-MAY-15		
Hydrocarbons								
	F1 (C6-C10)	<25		25	ug/L	21-MAY-15	750	750
	F1-BTEX	<25		25	ug/L	21-MAY-15	750	750
	F2 (C10-C16)	<100		100	ug/L	20-MAY-15	150	150
	F3 (C16-C34)	<250		250	ug/L	20-MAY-15	500	500
	F4 (C34-C50)	<250		250	ug/L	20-MAY-15	500	500
	Total Hydrocarbons (C6-C50)	<370		370	ug/L	21-MAY-15		
	Chrom. to baseline at nC50	YES			No Unit	20-MAY-15		
	Surrogate: 2-Bromobenzotrifluoride	78.8		60-140	%	20-MAY-15		
	Surrogate: 3,4-Dichlorotoluene	97.5		60-140	%	21-MAY-15		

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

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

Ontario Regulation 153/04 - April 15, 2011 Standards = [Suite] - T2-POTABLE-GROUNDWATER-ALL-TYPES-OF-PROPERTY-USE

#1: T2-Ground Water (Coarse Soil)-All Types of Property Use

#2: T2-Ground Water (Fine Soil)-All Types of Property Use



Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference***
F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC DEC-2000 - PUB# 1310-L

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

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

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

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

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

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

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

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

F1-HS-511-WT	Water	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
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Fraction F1 is determined by analyzing by headspace-GC/FID.

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

F2-F4-511-WT	Water	F2-F4-O.Reg 153/04 (July 2011)	MOE DECPH-E3398/CCME TIER 1
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Fractions F2, F3 and F4 are determined by liquid/liquid extraction with a solvent. The solvent recovered from the extracted sample is dried and treated to remove polar material. The extract is then analyzed by GC/FID.

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

MET-D-UG/L-MS-WT	Water	Diss. Metals in Water by ICPMS (ug/L)	EPA 200.8
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The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.

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

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

Liquid samples are analyzed by headspace GC/MSD.

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

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

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

Chain of Custody numbers:

154206

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



Reference Information

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

GLOSSARY OF REPORT TERMS

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

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

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

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

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

< - Less than.

D.L. - The reporting limit.

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

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

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

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

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



Quality Control Report

Workorder: L1612833

Report Date: 21-MAY-15

Page 1 of 11

Client: 8577382 Canada Inc. - BAE Environmental
 RR 1 ORO STATION
 ORO STATION ON L0L2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	Water							
Batch	R3193131							
WG2090185-4	DUP	WG2090185-3						
F1 (C6-C10)		<25	<25	RPD-NA	ug/L	N/A	30	21-MAY-15
WG2090185-1	LCS							
F1 (C6-C10)			97.9		%		80-120	21-MAY-15
WG2090185-2	MB							
F1 (C6-C10)			<25		ug/L		25	21-MAY-15
Surrogate: 3,4-Dichlorotoluene			105.9		%		60-140	21-MAY-15
WG2090185-5	MS	WG2090185-3						
F1 (C6-C10)			86.3		%		60-140	21-MAY-15
F2-F4-511-WT	Water							
Batch	R3192932							
WG2091301-1	CVS							
F2 (C10-C16)			103.5		%		80-120	20-MAY-15
F3 (C16-C34)			104.0		%		80-120	20-MAY-15
F4 (C34-C50)			108.7		%		80-120	20-MAY-15
WG2091301-2	CVS							
F2 (C10-C16)			102.4		%		80-120	20-MAY-15
F3 (C16-C34)			103.3		%		80-120	20-MAY-15
F4 (C34-C50)			108.7		%		80-120	20-MAY-15
WG2090801-2	LCS							
F2 (C10-C16)			92.7		%		65-135	20-MAY-15
F3 (C16-C34)			98.9		%		65-135	20-MAY-15
F4 (C34-C50)			100.6		%		65-135	20-MAY-15
WG2090801-3	LCSD	WG2090801-2						
F2 (C10-C16)		92.7	92.5		%	0.2	50	20-MAY-15
F3 (C16-C34)		98.9	105.0		%	6.0	50	20-MAY-15
F4 (C34-C50)		100.6	106.7		%	5.8	50	20-MAY-15
WG2090801-1	MB							
F2 (C10-C16)			<100		ug/L		100	20-MAY-15
F3 (C16-C34)			<250		ug/L		250	20-MAY-15
F4 (C34-C50)			<250		ug/L		250	20-MAY-15
Surrogate: 2-Bromobenzotrifluoride			79.2		%		60-140	20-MAY-15
MET-D-UG/L-MS-WT	Water							



Quality Control Report

Workorder: L1612833

Report Date: 21-MAY-15

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Client: 8577382 Canada Inc. - BAE Environmental
 RR 1 ORO STATION
 ORO STATION ON L0L2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	Water							
Batch	R3192329							
WG2090422-1	CVS							
Antimony (Sb)-Dissolved			99.6		%		80-120	19-MAY-15
Arsenic (As)-Dissolved			99.9		%		80-120	19-MAY-15
Barium (Ba)-Dissolved			101.6		%		80-120	19-MAY-15
Beryllium (Be)-Dissolved			103.6		%		80-120	19-MAY-15
Boron (B)-Dissolved			100.8		%		80-120	19-MAY-15
Cadmium (Cd)-Dissolved			101.4		%		80-120	19-MAY-15
Chromium (Cr)-Dissolved			99.7		%		80-120	19-MAY-15
Cobalt (Co)-Dissolved			102.2		%		80-120	19-MAY-15
Copper (Cu)-Dissolved			102.4		%		80-120	19-MAY-15
Lead (Pb)-Dissolved			100.5		%		80-120	19-MAY-15
Molybdenum (Mo)-Dissolved			97.8		%		80-120	19-MAY-15
Nickel (Ni)-Dissolved			100.7		%		80-120	19-MAY-15
Selenium (Se)-Dissolved			98.8		%		80-120	19-MAY-15
Silver (Ag)-Dissolved			102.2		%		80-120	19-MAY-15
Sodium (Na)-Dissolved			101.4		%		80-120	19-MAY-15
Thallium (Tl)-Dissolved			99.98		%		80-120	19-MAY-15
Uranium (U)-Dissolved			101.5		%		80-120	19-MAY-15
Vanadium (V)-Dissolved			100.6		%		80-120	19-MAY-15
Zinc (Zn)-Dissolved			93.0		%		80-120	19-MAY-15
WG2090422-3	CVS							
Antimony (Sb)-Dissolved			98.7		%		80-120	20-MAY-15
Arsenic (As)-Dissolved			103.6		%		80-120	20-MAY-15
Barium (Ba)-Dissolved			106.4		%		80-120	20-MAY-15
Beryllium (Be)-Dissolved			104.3		%		80-120	20-MAY-15
Boron (B)-Dissolved			100.6		%		80-120	20-MAY-15
Cadmium (Cd)-Dissolved			105.5		%		80-120	20-MAY-15
Chromium (Cr)-Dissolved			103.2		%		80-120	20-MAY-15
Cobalt (Co)-Dissolved			103.9		%		80-120	20-MAY-15
Copper (Cu)-Dissolved			102.0		%		80-120	20-MAY-15
Lead (Pb)-Dissolved			100.8		%		80-120	20-MAY-15
Molybdenum (Mo)-Dissolved			95.2		%		80-120	20-MAY-15
Nickel (Ni)-Dissolved			104.4		%		80-120	20-MAY-15
Selenium (Se)-Dissolved			99.6		%		80-120	20-MAY-15
Silver (Ag)-Dissolved			103.0		%		80-120	20-MAY-15



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Client: 8577382 Canada Inc. - BAE Environmental
 RR 1 ORO STATION
 ORO STATION ON L0L 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	Water							
Batch	R3192329							
WG2090422-3	CVS							
Sodium (Na)-Dissolved			104.5		%		80-120	20-MAY-15
Thallium (Tl)-Dissolved			99.1		%		80-120	20-MAY-15
Uranium (U)-Dissolved			99.5		%		80-120	20-MAY-15
Vanadium (V)-Dissolved			104.0		%		80-120	20-MAY-15
Zinc (Zn)-Dissolved			97.6		%		80-120	20-MAY-15
WG2090144-4	DUP	WG2090144-3						
Antimony (Sb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	19-MAY-15
Arsenic (As)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	19-MAY-15
Barium (Ba)-Dissolved		43.7	44.4		ug/L	1.7	20	19-MAY-15
Beryllium (Be)-Dissolved		<0.40	<0.40	RPD-NA	ug/L	N/A	20	19-MAY-15
Boron (B)-Dissolved		98	98		ug/L	0.1	20	19-MAY-15
Cadmium (Cd)-Dissolved		<0.090	<0.090	RPD-NA	ug/L	N/A	20	19-MAY-15
Chromium (Cr)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	19-MAY-15
Cobalt (Co)-Dissolved		<0.30	<0.30	RPD-NA	ug/L	N/A	20	19-MAY-15
Copper (Cu)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	19-MAY-15
Lead (Pb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	19-MAY-15
Molybdenum (Mo)-Dissolved		0.61	0.55		ug/L	11	20	19-MAY-15
Nickel (Ni)-Dissolved		1.5	1.4		ug/L	8.3	20	19-MAY-15
Selenium (Se)-Dissolved		<0.40	<0.40	RPD-NA	ug/L	N/A	20	20-MAY-15
Silver (Ag)-Dissolved		0.18	<0.10	RPD-NA	ug/L	N/A	20	19-MAY-15
Sodium (Na)-Dissolved		21700	21800		ug/L	0.5	20	19-MAY-15
Thallium (Tl)-Dissolved		<0.20	<0.20	RPD-NA	ug/L	N/A	20	19-MAY-15
Uranium (U)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	19-MAY-15
Vanadium (V)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	19-MAY-15
Zinc (Zn)-Dissolved		<3.0	<3.0	RPD-NA	ug/L	N/A	20	19-MAY-15
WG2090144-2	LCS							
Antimony (Sb)-Dissolved			97.7		%		80-120	20-MAY-15
Arsenic (As)-Dissolved			103.9		%		80-120	20-MAY-15
Barium (Ba)-Dissolved			103.2		%		80-120	20-MAY-15
Beryllium (Be)-Dissolved			96.2		%		80-120	20-MAY-15
Boron (B)-Dissolved			94.0		%		80-120	20-MAY-15
Cadmium (Cd)-Dissolved			103.5		%		80-120	20-MAY-15
Chromium (Cr)-Dissolved			102.8		%		80-120	20-MAY-15



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Client: 8577382 Canada Inc. - BAE Environmental
 RR 1 ORO STATION
 ORO STATION ON L0L 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	Water							
Batch	R3192329							
WG2090144-2 LCS								
Cobalt (Co)-Dissolved			104.3		%		80-120	20-MAY-15
Copper (Cu)-Dissolved			103.6		%		80-120	20-MAY-15
Lead (Pb)-Dissolved			99.9		%		80-120	20-MAY-15
Molybdenum (Mo)-Dissolved			95.4		%		80-120	20-MAY-15
Nickel (Ni)-Dissolved			104.2		%		80-120	20-MAY-15
Selenium (Se)-Dissolved			100.4		%		80-120	20-MAY-15
Silver (Ag)-Dissolved			99.2		%		80-120	20-MAY-15
Sodium (Na)-Dissolved			104.3		%		80-120	20-MAY-15
Thallium (Tl)-Dissolved			98.2		%		80-120	20-MAY-15
Uranium (U)-Dissolved			98.8		%		80-120	20-MAY-15
Vanadium (V)-Dissolved			105.1		%		80-120	20-MAY-15
Zinc (Zn)-Dissolved			104.6		%		80-120	20-MAY-15
WG2090144-1 MB								
Antimony (Sb)-Dissolved			<0.50		ug/L		0.5	20-MAY-15
Arsenic (As)-Dissolved			<1.0		ug/L		1	20-MAY-15
Barium (Ba)-Dissolved			<2.0		ug/L		2	20-MAY-15
Beryllium (Be)-Dissolved			<0.40		ug/L		0.4	20-MAY-15
Boron (B)-Dissolved			<10		ug/L		10	20-MAY-15
Cadmium (Cd)-Dissolved			<0.090		ug/L		0.09	20-MAY-15
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	20-MAY-15
Cobalt (Co)-Dissolved			<0.30		ug/L		0.3	20-MAY-15
Copper (Cu)-Dissolved			<1.0		ug/L		1	20-MAY-15
Lead (Pb)-Dissolved			<0.50		ug/L		0.5	20-MAY-15
Molybdenum (Mo)-Dissolved			<0.50		ug/L		0.5	20-MAY-15
Nickel (Ni)-Dissolved			<1.0		ug/L		1	20-MAY-15
Selenium (Se)-Dissolved			<0.40		ug/L		0.4	20-MAY-15
Silver (Ag)-Dissolved			<0.10		ug/L		0.1	20-MAY-15
Sodium (Na)-Dissolved			<500		ug/L		500	20-MAY-15
Thallium (Tl)-Dissolved			<0.20		ug/L		0.2	20-MAY-15
Uranium (U)-Dissolved			<1.0		ug/L		1	20-MAY-15
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	20-MAY-15
Zinc (Zn)-Dissolved			<3.0		ug/L		3	20-MAY-15
WG2090144-5 MS		WG2090144-3						
Antimony (Sb)-Dissolved			84.4		%		70-130	19-MAY-15



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 RR 1 ORO STATION
 ORO STATION ON LOL 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R3192329							
WG2090144-5	MS	WG2090144-3						
Arsenic (As)-Dissolved			94.0		%		70-130	19-MAY-15
Barium (Ba)-Dissolved			82.0		%		70-130	19-MAY-15
Beryllium (Be)-Dissolved			90.1		%		70-130	19-MAY-15
Boron (B)-Dissolved			78.0		%		70-130	19-MAY-15
Cadmium (Cd)-Dissolved			90.0		%		70-130	19-MAY-15
Chromium (Cr)-Dissolved			88.2		%		70-130	19-MAY-15
Cobalt (Co)-Dissolved			86.7		%		70-130	19-MAY-15
Copper (Cu)-Dissolved			85.2		%		70-130	19-MAY-15
Lead (Pb)-Dissolved			86.1		%		70-130	19-MAY-15
Molybdenum (Mo)-Dissolved			84.1		%		70-130	19-MAY-15
Nickel (Ni)-Dissolved			85.0		%		70-130	19-MAY-15
Sodium (Na)-Dissolved			N/A	MS-B	%		-	19-MAY-15
Thallium (Tl)-Dissolved			85.6		%		70-130	19-MAY-15
Uranium (U)-Dissolved			90.7		%		70-130	19-MAY-15
Vanadium (V)-Dissolved			93.2		%		70-130	19-MAY-15
Zinc (Zn)-Dissolved			90.7		%		70-130	19-MAY-15
VOC-511-HS-WT		Water						
Batch	R3193131							
WG2090185-4	DUP	WG2090185-3						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	21-MAY-15
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	21-MAY-15
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15



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 RR 1 ORO STATION
 ORO STATION ON L0L2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch R3193131								
WG2090185-4 DUP		WG2090185-3						
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	21-MAY-15
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	21-MAY-15
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	21-MAY-15
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	21-MAY-15
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	21-MAY-15
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	21-MAY-15
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	21-MAY-15
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	21-MAY-15
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	21-MAY-15
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	21-MAY-15
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	21-MAY-15
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	21-MAY-15
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	21-MAY-15
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	21-MAY-15
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	21-MAY-15
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	21-MAY-15
WG2090185-1 LCS								
1,1,1,2-Tetrachloroethane			92.6		%		70-130	21-MAY-15
1,1,2,2-Tetrachloroethane			94.4		%		70-130	21-MAY-15
1,1,1-Trichloroethane			93.1		%		70-130	21-MAY-15
1,1,2-Trichloroethane			100.2		%		70-130	21-MAY-15
1,1-Dichloroethane			95.0		%		70-130	21-MAY-15
1,1-Dichloroethylene			87.0		%		70-130	21-MAY-15



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 RR 1 ORO STATION
 ORO STATION ON LOL 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R3193131							
WG2090185-1	LCS							
1,2-Dibromoethane			95.9		%		70-130	21-MAY-15
1,2-Dichlorobenzene			95.1		%		70-130	21-MAY-15
1,2-Dichloroethane			99.4		%		70-130	21-MAY-15
1,2-Dichloropropane			99.2		%		70-130	21-MAY-15
1,3-Dichlorobenzene			91.4		%		70-130	21-MAY-15
1,4-Dichlorobenzene			94.2		%		70-130	21-MAY-15
Acetone			114.5		%		60-140	21-MAY-15
Benzene			99.0		%		70-130	21-MAY-15
Bromodichloromethane			93.7		%		70-130	21-MAY-15
Bromoform			90.7		%		70-130	21-MAY-15
Bromomethane			93.6		%		60-140	21-MAY-15
Carbon tetrachloride			90.6		%		70-130	21-MAY-15
Chlorobenzene			96.8		%		70-130	21-MAY-15
Chloroform			98.6		%		70-130	21-MAY-15
cis-1,2-Dichloroethylene			100.1		%		70-130	21-MAY-15
cis-1,3-Dichloropropene			96.6		%		70-130	21-MAY-15
Dibromochloromethane			90.8		%		70-130	21-MAY-15
Dichlorodifluoromethane			72.1		%		60-140	21-MAY-15
Ethylbenzene			97.7		%		70-130	21-MAY-15
n-Hexane			110.9		%		70-130	21-MAY-15
m+p-Xylenes			99.9		%		70-130	21-MAY-15
Methyl Ethyl Ketone			109.2		%		60-140	21-MAY-15
Methyl Isobutyl Ketone			97.6		%		60-140	21-MAY-15
Methylene Chloride			97.1		%		70-130	21-MAY-15
MTBE			95.3		%		70-130	21-MAY-15
o-Xylene			98.6		%		70-130	21-MAY-15
Styrene			98.6		%		70-130	21-MAY-15
Tetrachloroethylene			92.4		%		70-130	21-MAY-15
Toluene			93.0		%		70-130	21-MAY-15
trans-1,2-Dichloroethylene			93.8		%		70-130	21-MAY-15
trans-1,3-Dichloropropene			93.7		%		70-130	21-MAY-15
Trichloroethylene			90.8		%		70-130	21-MAY-15
Trichlorofluoromethane			99.7		%		60-140	21-MAY-15



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 RR 1 ORO STATION
 ORO STATION ON L0L 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R3193131							
WG2090185-1	LCS							
Vinyl chloride			99.9		%		60-140	21-MAY-15
WG2090185-2	MB							
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,1-Trichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,2-Trichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1-Dichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1-Dichloroethylene			<0.50		ug/L		0.5	21-MAY-15
1,2-Dibromoethane			<0.20		ug/L		0.2	21-MAY-15
1,2-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
1,2-Dichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,2-Dichloropropane			<0.50		ug/L		0.5	21-MAY-15
1,3-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
1,4-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
Acetone			<30		ug/L		30	21-MAY-15
Benzene			<0.50		ug/L		0.5	21-MAY-15
Bromodichloromethane			<2.0		ug/L		2	21-MAY-15
Bromoform			<5.0		ug/L		5	21-MAY-15
Bromomethane			<0.50		ug/L		0.5	21-MAY-15
Carbon tetrachloride			<0.20		ug/L		0.2	21-MAY-15
Chlorobenzene			<0.50		ug/L		0.5	21-MAY-15
Chloroform			<1.0		ug/L		1	21-MAY-15
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	21-MAY-15
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	21-MAY-15
Dibromochloromethane			<2.0		ug/L		2	21-MAY-15
Dichlorodifluoromethane			<2.0		ug/L		2	21-MAY-15
Ethylbenzene			<0.50		ug/L		0.5	21-MAY-15
n-Hexane			<0.50		ug/L		0.5	21-MAY-15
m+p-Xylenes			<0.40		ug/L		0.4	21-MAY-15
Methyl Ethyl Ketone			<20		ug/L		20	21-MAY-15
Methyl Isobutyl Ketone			<20		ug/L		20	21-MAY-15
Methylene Chloride			<5.0		ug/L		5	21-MAY-15
MTBE			<2.0		ug/L		2	21-MAY-15
o-Xylene			<0.30		ug/L		0.3	21-MAY-15



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 RR 1 ORO STATION
 ORO STATION ON L0L 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R3193131							
WG2090185-1	LCS							
Vinyl chloride			99.9		%		60-140	21-MAY-15
WG2090185-2	MB							
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,1-Trichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1,2-Trichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1-Dichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,1-Dichloroethylene			<0.50		ug/L		0.5	21-MAY-15
1,2-Dibromoethane			<0.20		ug/L		0.2	21-MAY-15
1,2-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
1,2-Dichloroethane			<0.50		ug/L		0.5	21-MAY-15
1,2-Dichloropropane			<0.50		ug/L		0.5	21-MAY-15
1,3-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
1,4-Dichlorobenzene			<0.50		ug/L		0.5	21-MAY-15
Acetone			<30		ug/L		30	21-MAY-15
Benzene			<0.50		ug/L		0.5	21-MAY-15
Bromodichloromethane			<2.0		ug/L		2	21-MAY-15
Bromoform			<5.0		ug/L		5	21-MAY-15
Bromomethane			<0.50		ug/L		0.5	21-MAY-15
Carbon tetrachloride			<0.20		ug/L		0.2	21-MAY-15
Chlorobenzene			<0.50		ug/L		0.5	21-MAY-15
Chloroform			<1.0		ug/L		1	21-MAY-15
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	21-MAY-15
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	21-MAY-15
Dibromochloromethane			<2.0		ug/L		2	21-MAY-15
Dichlorodifluoromethane			<2.0		ug/L		2	21-MAY-15
Ethylbenzene			<0.50		ug/L		0.5	21-MAY-15
n-Hexane			<0.50		ug/L		0.5	21-MAY-15
m+p-Xylenes			<0.40		ug/L		0.4	21-MAY-15
Methyl Ethyl Ketone			<20		ug/L		20	21-MAY-15
Methyl Isobutyl Ketone			<20		ug/L		20	21-MAY-15
Methylene Chloride			<5.0		ug/L		5	21-MAY-15
MTBE			<2.0		ug/L		2	21-MAY-15
o-Xylene			<0.30		ug/L		0.3	21-MAY-15



Quality Control Report

Workorder: L1612833

Report Date: 21-MAY-15

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Client: 8577382 Canada Inc. - BAE Environmental
 RR 1 ORO STATION
 ORO STATION ON L0L 2E0
 Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R3193131							
WG2090185-2	MB							
Styrene			<0.50		ug/L		0.5	21-MAY-15
Tetrachloroethylene			<0.50		ug/L		0.5	21-MAY-15
Toluene			<0.50		ug/L		0.5	21-MAY-15
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	21-MAY-15
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	21-MAY-15
Trichloroethylene			<0.50		ug/L		0.5	21-MAY-15
Trichlorofluoromethane			<5.0		ug/L		5	21-MAY-15
Vinyl chloride			<0.50		ug/L		0.5	21-MAY-15
Surrogate: 1,4-Difluorobenzene			98.9		%		70-130	21-MAY-15
Surrogate: 4-Bromofluorobenzene			93.6		%		70-130	21-MAY-15
WG2090185-5	MS	WG2090185-3						
1,1,1,2-Tetrachloroethane			92.1		%		50-140	21-MAY-15
1,1,2,2-Tetrachloroethane			95.7		%		50-140	21-MAY-15
1,1,1-Trichloroethane			97.5		%		50-140	21-MAY-15
1,1,2-Trichloroethane			99.1		%		50-140	21-MAY-15
1,1-Dichloroethane			99.8		%		50-140	21-MAY-15
1,1-Dichloroethylene			90.0		%		50-140	21-MAY-15
1,2-Dibromoethane			94.6		%		50-140	21-MAY-15
1,2-Dichlorobenzene			95.4		%		50-140	21-MAY-15
1,2-Dichloroethane			104.8		%		50-140	21-MAY-15
1,2-Dichloropropane			101.2		%		50-140	21-MAY-15
1,3-Dichlorobenzene			91.1		%		50-140	21-MAY-15
1,4-Dichlorobenzene			94.9		%		50-140	21-MAY-15
Acetone			123.3		%		50-140	21-MAY-15
Benzene			102.7		%		50-140	21-MAY-15
Bromodichloromethane			98.5		%		50-140	21-MAY-15
Bromoform			91.4		%		50-140	21-MAY-15
Bromomethane			94.9		%		50-140	21-MAY-15
Carbon tetrachloride			95.5		%		50-140	21-MAY-15
Chlorobenzene			98.4		%		50-140	21-MAY-15
Chloroform			104.2		%		50-140	21-MAY-15
cis-1,2-Dichloroethylene			103.6		%		50-140	21-MAY-15
cis-1,3-Dichloropropene			92.7		%		50-140	21-MAY-15
Dibromochloromethane			91.0		%		50-140	21-MAY-15



Quality Control Report

Workorder: L1612833

Report Date: 21-MAY-15

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Client: 8577382 Canada Inc. - BAE Environmental
RR 1 ORO STATION
ORO STATION ON L0L 2E0
Contact: BRIAN EMMS

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R3193131							
WG2090185-5 MS		WG2090185-3						
Dichlorodifluoromethane			67.6		%		50-140	21-MAY-15
Ethylbenzene			90.7		%		50-140	21-MAY-15
n-Hexane			112.5		%		50-140	21-MAY-15
m+p-Xylenes			97.0		%		50-140	21-MAY-15
Methyl Ethyl Ketone			108.8		%		50-140	21-MAY-15
Methyl Isobutyl Ketone			89.3		%		50-140	21-MAY-15
Methylene Chloride			106.5		%		50-140	21-MAY-15
MTBE			95.7		%		50-140	21-MAY-15
o-Xylene			92.3		%		50-140	21-MAY-15
Styrene			91.7		%		50-140	21-MAY-15
Tetrachloroethylene			89.8		%		50-140	21-MAY-15
Toluene			87.4		%		50-140	21-MAY-15
trans-1,2-Dichloroethylene			96.7		%		50-140	21-MAY-15
trans-1,3-Dichloropropene			83.2		%		50-140	21-MAY-15
Trichloroethylene			92.9		%		50-140	21-MAY-15
Trichlorofluoromethane			104.2		%		50-140	21-MAY-15
Vinyl chloride			98.8		%		50-140	21-MAY-15



Quality Control Report

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Client: 8577382 Canada Inc. - BAE Environmental
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ORO STATION ON L0L 2E0
Contact: BRIAN EMMS

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
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.

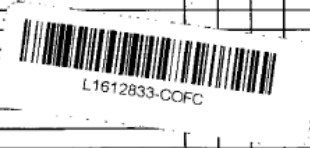
Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.



154206

C of C # 00000

60 NORTHLAND ROAD, UNIT 1 WATERLOO, ON N2V 2B8 Phone: (519) 886-6910 Fax: (519) 886-9047 Toll Free: 1-800-668-9878		CHAIN OF CUSTODY / ANALYTICAL SERVICES REQUEST FORM Page 1 of 1																
ALS Environmental 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: 2 day TAT (50%) 5 day (regular) <input checked="" type="checkbox"/> Next day TAT (100%) 3-4 day (25%) Same day TAT (200%)																
COMPANY NAME: BAE OFFICE: Oro Sta. PROJECT MANAGER: B. Emms PROJECT #: BAE-1453 PHONE: 705-715-1881 ACCOUNT #: 19051 QUOTATION #: 19051		CRITERIA: Criteria on report YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Reg 153/04 <input type="checkbox"/> Reg 511/09 <input checked="" type="checkbox"/> Table: 1 <input checked="" type="checkbox"/> 2 <input checked="" type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> TCLP <input type="checkbox"/> MISA <input type="checkbox"/> PWQO <input type="checkbox"/> ODWS <input type="checkbox"/> OTHER <input type="checkbox"/>																
REPORT FORMAT/DISTRIBUTION: EMAIL <input checked="" type="checkbox"/> FAX <input type="checkbox"/> BOTH <input type="checkbox"/> SELECT: PDF <input checked="" type="checkbox"/> DIGITAL <input type="checkbox"/> BOTH <input type="checkbox"/> EMAIL 1: _____ EMAIL 2: _____		ANALYSIS REQUEST PLEASE INDICATE FILTERED, PRESERVED OR BOTH (F, P, F/P) SUBMISSION #: L1612833 ENTERED BY: og DATE/TIME ENTERED: 15/5/15 19:38 BIN #: May 15D																
SAMPLING INFORMATION Sample Date/Time: 15-05-15 0700 Date (dd-mm-yy) Time (24hr) (hh:mm) 15-05-15 0715		NUMBER OF CONTAINERS: VOCs FI, 2, 3, 4 Metals																
<table border="1"> <thead> <tr> <th>Sample Date/Time</th> <th>TYPE</th> <th>MATRIX</th> <th>SAMPLE DESCRIPTION TO APPEAR ON REPORT</th> </tr> </thead> <tbody> <tr> <td>15-05-15 0700</td> <td>COMP</td> <td>CRAB</td> <td>BAE-MW15D6</td> </tr> <tr> <td>15-05-15 0715</td> <td>WATER</td> <td>SOIL</td> <td>BAE-MW15D7</td> </tr> </tbody> </table>		Sample Date/Time	TYPE	MATRIX	SAMPLE DESCRIPTION TO APPEAR ON REPORT	15-05-15 0700	COMP	CRAB	BAE-MW15D6	15-05-15 0715	WATER	SOIL	BAE-MW15D7	<table border="1"> <thead> <tr> <th>LAB ID</th> </tr> </thead> <tbody> <tr> <td>1</td> </tr> <tr> <td>2</td> </tr> </tbody> </table>		LAB ID	1	2
Sample Date/Time	TYPE	MATRIX	SAMPLE DESCRIPTION TO APPEAR ON REPORT															
15-05-15 0700	COMP	CRAB	BAE-MW15D6															
15-05-15 0715	WATER	SOIL	BAE-MW15D7															
LAB ID																		
1																		
2																		
SPECIAL INSTRUCTIONS/COMMENTS		THE QUESTIONS BELOW MUST BE ANSWERED FOR WATER SAMPLES (CHECK Yes OR No)																
Are any samples taken from a regulated DW System? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> 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 <input type="checkbox"/> No <input checked="" type="checkbox"/>		SAMPLE CONDITION: FROZEN <input type="checkbox"/> MEAN TEMP <input type="checkbox"/> COLD <input type="checkbox"/> COOLING INITIATED <input checked="" type="checkbox"/> 7.1 AMBIENT <input type="checkbox"/>																
SAMPLED BY: [Signature] RELINQUISHED BY: [Signature]		RECEIVED BY: [Signature] DATE & TIME: May 15, 2015 10:40am RECEIVED AT LAB BY: [Signature] DATE & TIME: 15/5/15 19:00																
Notes: 1. Quote number must be provided to ensure proper pricing		2. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.																
		3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.																





Appendix II
Borehole Records – May 2015



BOREHOLE RECORD

MW1506

CLIENT: Alium LOCATION: Bank Street, Greely DATE: May13, 2015 PROJECT #: BAE-1453
 Datum Elevation – 0 @ Grade
 Groundwater Level – 3.25mbgl
 Continual Split Spoon Sampling @ 0.6m intervals

DEPTH (m)	ELEV. (m)	STRATA DESCRIPTION	STRATA PL. OT	H ₂ O LEVEL	DEPTH (ft)	VAPOUR CONCENTRATION		SAMPLES		WELL DATA
						⊙%LEL	Δppm	TYPE	N-VALUE	
0		Field Grass/ Topsoil 50mm				⊙ 20 40 60 80 Δ 100 200 300 400		S / S		<u>Well Install</u> 3.0m Screen – 3-6mbgl, 3m Riser- 0-3mbgl, Locking well cap in place
		Grey Clay with Sand and Silt, Moist, soft							1	
		No Staining or Odours				Δ			2	
1									3	
					5	Δ			4	
2									5	
	2.2	Grey Clay, Trace Sand/Silt/Clay Wet, soft				Δ			6	
3		No Staining or Odours			10	Δ			7	
									8	
4	4.2					Δ				
					15	Δ				
5										
		BH terminated at 6m								
6										

Addendum to: Phase II Environmental Site Assessment at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario, July 15th, 2013, updated September 10th, 2014



BOREHOLE RECORD

MW1507

CLIENT: Alium LOCATION: Bank Street, Greely DATE: May 13, 2015 PROJECT #: BAE-1453
 Datum Elevation – 0 @ Grade
 Groundwater Level – 3.24mbgl
 Continual Split Spoon Sampling @ 0.6m intervals

DEPTH (m)	ELEV. (m)	STRATA DESCRIPTION	STRATA PL. OT	H2O LEVEL	DEPTH (ft)	VAPOUR CONCENTRATION		SAMPLES		WELL DATA
						⊙%LEL	Δppm	TYPE	N-VALUE	
0		Field Grass/ Topsoil 50mm				⊙ 20 40 60 80 Δ 100 200 300 400		S / S		
0.75		Grey Clay with Sand and Silt - moist, soft No Staining or Odours								<u>Well Install</u> 3.0m Screen – 3-6mbgl, 3m Riser- 0-3mbgl, Locking well cap in place
1								1		
								2		
					5			3		
2								4		
								5		
3		Grey Clay trace Sand/Silt/Gravel Wet, soft			10			6		
4		No Staining or Odours						7		
4.1										
5					15			8		
6		BH terminated at 6m								

Addendum to: Phase II Environmental Site Assessment at 5640 Bank Street, 7107 Marco Street, and 7041 Mitch Owens Road, City of Ottawa, Ontario, July 15th, 2013, updated September 10th, 2014